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MEDICAL TIMES

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Contents.

ON EARLY AND LATE REMOVAL OF ABDOMINAL TUMOURS.

By Sir SPENCER WELLS, Bart.

Late President of the Royal College of Surgeons of England.

Twenty or twenty-five years ago, when the removal of any abdominal tumour was very seldom attempted—when ovariotomy was on its trial—when uterine tumours were generally considered as beyond the art of the surgeon—early operation was the rare exception to the general rule only to act when the necessity for attempting to save life from great or immediate danger was so evident that failure could lead neither to surprise nor blame. The operation might not succeed in saving life; but it scarcely shortened it, and the patient only lost a few days or weeks of a suffering life. Then as ovariotomy rose to the position of lithotomy among surgical operations—when it became known that from a mortality of 70 or 80 per cent. the recoveries soon equalled the deaths, and then advanced rapidly with increasing knowledge year after year, until almost all the favourable cases recovered, and almost every death was in a case recognised, before operation, as more than doubtful, it became needful to utter a word of warning against indiscriminate or thoughtless proceedings. Afterwards, when the strictest hygienic precautions were supplemented by antiseptics, and improvements in operative detail were generally adopted, success became so great that ovariotomy not only took its stand as by very far the most successful of any capital operation in surgery, but the risk attending it in a favourable case could truly be calculated as little, if at all, greater than that necessarily attending any case of natural childbirth; and, as a necessary consequence, early operations could be advised with less hesitation.

Then, as ovariotomy led to the removal of uterine tumours, and the terms hysterotomy, hysterectomy, myomotomy, and fibro-myomotomy crept into surgical literature, much the same change in professional opinion and practice has been going on. At first, it was only after an error in diagnosis, not discovered until the operation had been begun or completed, that a large solid uterine tumour was removed. Knowledge so acquired, and success thus occasionally obtained, led to more accurate diagnosis, and more frequent operations; and, just as in ovariotomy, to improvements in all the details of practice, and to a rate of mortality which has diminished rapidly, success having been attained under such unfavourable conditions as a few years ago would have justified any surgeon in refusing to comply with the earnest prayer for relief from an almost dying woman.

Again it became needful to sound a note of warning, and to suggest that the analogy between ovariotomy and hysterectomy must not be carried too far—that in many respects the two operations, especially as to the

time when they should be performed, stand upon very different ground. A considerable proportion of ovarian tumours, sufficiently large to cause suffering or some inconvenience to a patient, or to lead her to seek for medical advice, sooner or later absolutely demand operative treatment. An equally large proportion of uterine tumours do not require any treatment, cause very little suffering or inconvenience, and disappear partially or entirely not very long after the cessation of menstruation. It is only in exceptional cases that hæmorrhage, or unusual effects of pressure from tumours of moderate size, or excessive growth of the tumour, lead to a consultation as to the removal of a uterine tumour. In cases of ovarian tumour, removal is the rule of treatment. With uterine tumours it is the exception, not so rare as it used to be, but still the exception ; and in cases where excessive periodical loss of blood is the reason for operation, the alternative proposal has to be taken into account of removing both ovaries and cutting off the supply of blood instead of removing the uterine tumour. No such alternative proceeding can be considered in a question of ovariotomy ; unless drainage in cases where it is impossible to completely remove an ovarian cyst can be considered as analogous.

Many writers on this question of early or late operation seem to be remarkably forgetful of the fact that the surgeon cannot do exactly as he pleases with his patients. In many cases where he would have liked to operate early, he does not see the case until the tumour is very large and the patient in extreme suffering. In others his advice must be modified by the circumstances of the patient. She may be a poor woman who must earn her living, or a rich one who can obtain every appliance that can afford relief ; and although many patients are ready to act as they are advised and willingly submit to what is thought to be best in their own case, many others cannot or will not shake off their hopes and fears, their affections or their interests, and the surgeon, while giving information or advice, must leave the decision to the patient or her relatives. There are patients upon whom it is quite right to operate much earlier than the necessity of the case demands. A marriage has been arranged and cannot be indefinitely postponed ; or a married woman wishes to accompany her husband to India, Australia, or elsewhere, or to join him there, and as an invalid can do neither ; or a sensitive girl is distressed by remarks on her appearance. On the other hand, there are patients who determine, in spite of urgent advice, to defer operation as long as possible. A widow whose children are entirely dependent upon her annuity—a wife devoted to the care of a sick husband or child, must think of others more than of herself, and every surgeon of much experience has met with both classes of cases. He is not playing with chess-men. He is dealing with intelligent human beings, who are influenced by their emotions and passions, and are very seldom free agents ; and he can do little more than say what, to the best of his knowledge and belief, will be the probable course and duration of a tumour if left alone, what is the amount of risk probably attendant upon its removal, and what security can be reasonably offered that recovery from the operation means a complete cure—in other words, that there will be no return of the disease.

Here again the contrast between uterine and ovarian tumours is remarkable. A woman who recovers, in any form of non-malignant disease, after ovariotomy is restored to complete health. If one ovary only is removed she may bear children of both sexes. The probability of disease occurring on the other side is not more than 1 in 100. If both ovaries are removed, this small drawback is removed ; but young women become sterile.

All this has been completely established, but we are still imperfectly supplied with facts as to the subsequent conditions of women after removal of large portions of the uterus, with or without removal at the same time of one or both ovaries. I know of several when after some years the health has remained surprisingly good. The details of such cases may be found in my last work on ovarian and uterine tumours. I have seen other cases where it has been impossible to remove the whole disease. Subserous myomata have been removed, while mural growths have been left, and the patient may have been relieved, but not cured. In the present day such a case would probably be subjected to removal of both ovaries as well as to myomotomy. But before any general rule of practice can be laid down, or any really accurate information or trustworthy advice can be given to a patient who has a uterine tumour, we must have as full and as precise histories of long series of cases as we have obtained with regard to ovarian tumours and ovariotomy. We shall probably have, at the Copenhagen Congress, from Professor Olshausen, of Halle, very important additions to our knowledge in this direction, and we have still to learn much as to the effect upon uterine growths and out-growths of the removal of the ovaries. Vague unsupported assertions have little influence upon the opinion of a thoughtful or sceptical profession. And just now something more than a word of caution against rash, dangerous, unnecessary operations is called for. We are startled by reports of the removal of the normal ovaries of young women suffering from nervous disorders which may be exaggerated or imaginary ; and it is to be feared that our professional honour is at stake ; that statements are publicly made which, when challenged, cannot be substantiated ; and that abdominal surgery in its latest developments is open to the denunciation hurled against the earlier ovariotomists ; and that, with more reason than in 1850, Lawrence's question must be repeated, whether such operations "can be encouraged and continued without danger to the character of the profession," and West's assertion that "a fundamental principle of medical morality is outraged," cannot now be satisfactorily refuted.

CLINICAL REMARKS ON PERITONITIS.[1]

I.—PERITONITIS OF PELVIC ORIGIN.

By W. T. GAIRDNER, M.D., LL.D.,
Professor of Medicine in the University of Glasgow.

We have recently had under observation several cases which I have been obliged to designate as "peritonitis," and I wish to make some remarks on the various forms of disease indicated under that rather comprehensive nosological expression. Two of these cases were, in fact, quite acute, characterised by much pain and general distress, and even by danger, on admission ; another, and perhaps yet another, were by no means acute, but had possibly or probably been attended by acute symptoms some time before. Cases of this kind, although not among the most common of the incidents in our ward-experience, still occur so frequently that in the ten years this hospital has been open we have quite a large group of them ; and it is worth while to make to-day some general remarks bearing on these cases, and on the whole subject.

Now, the first principle I have striven to impress

[1] Summer Clinical Course in the Western Infirmary, Glasgow, May and June, 1884.

upon you in the diagnosis of these cases, is that in dealing with any disease that has a name, and especially a name ending in "*itis*," you must beware of the too easy fallacy that because the disease under observation corresponds roughly, or even in detail, with a general description in a book, or in medical tradition, its diagnosis, pathology, treatment are thereby to be settled forthwith. This principle, as one applying to medical diagnosis in general, may be said to be true of all diseases; it is especially true of peritonitis. You have not made a *diagnosis* by calling it peritonitis, nor yet by adding that it is acute, sub-acute, or chronic. You may be right so far, but it is not more than the first beginnings of a true diagnosis. On the other hand you may be wrong; it may be only nerve-pain, or hysteria, or pain due to some organic disease more deeply seated than you were counting upon, and attended by acute and even inflammatory symptoms. Generally speaking the symptoms will not lead you astray, if you take care to follow them up by investigations into the state of all the organs or functions that can probably be implicated, but if you stop short of this, you will assuredly fall into error, sometimes into gross error, in regard to what is most essential—*the management of your individual case.* In one of these cases now under treatment, we did for a time fall into such error, though perhaps under the circumstances excusably; and it was owing to the omission of just one of the investigations that I am now insisting upon, with a view to your education and improvement.

The first step towards a diagnosis in a case having the conventional symptoms of peritonitis, is to keep it steadily in view that true peritonitis, and especially acute peritonitis, is rarely, if ever, "idiopathic" as it is called; that is to say, it is not a disease standing by itself, implicating only the peritonæum, and without relation to any other organic disease as its cause; but rather one which derives almost all its clinical significance from the inquiry into its cause; one which is to be treated and managed, as well as judged of with respect to its prognosis, according to its cause in most instances, if only you can succeed in making out the true sequence of events. This was most strikingly illustrated by a case which occurred to us nearly eight years ago, when Dr. Frank Shearer, now of Paisley, was my resident assistant, and preserved a careful and detailed note of the facts. The symptoms were of the most acute and deadly kind of peritonitis, as described in the text-books; there was hardly a doubt, from the first, that the poor young girl was dying, and she died in fact in less than twenty hours after her admission, the temperature rising steadily till it was nearly 105° F. in the axilla, and 106° in the rectum at the time of her death; and with this peculiarity (which you will find very characteristic of such cases) that while the thermometric notes showed this steady rise, "the face was covered with a livid flush, and her hands became gradually colder and her nails more livid, till at the time when the thermometer in the axilla registered 104·7°, her hands were of an icy coldness." These facts will probably recur to you, if you take note of them now, when you meet with another case like that of M. T.; but that may very well not be soon, for such extreme cases are rather rare. My object, however, in referring to this case, is not to comment in detail upon the symptoms, but to tell you about the *post-mortem* examination. I was entirely "at sea" as to the cause of the peritonitis in this case; for the opportunity of observing it in detail was wanting; the girl was dying, and all we could do in the way of treatment was to relieve her agony a little by fomentations of the abdomen, and by opium. But we had ascertained that she had not the history of a perforated bowel or stomach, not of typhoid fever for instance, nor of a long-standing dyspepsia, nor of chronic disease of the intestines; only of an illness reported somewhat similar to the one for which she was admitted, but much milder, about a year previously, which, it was said, had only lasted for a week. The typical symptoms and physical signs of peritonitis were all present, but there was nothing to reveal its source unless we had made a pelvic examination, and this I can hardly take blame to myself for not doing in this obviously dying girl. But in making the *post-mortem* examination, I said by anticipation, that going merely on the known fact that acute, and especially fatal, peritonitis is so rarely *idiopathic*, we might expect to find a cause, and might possibly find it in the pelvis; and in the pelvis accordingly it was discovered; the left ovary being the seat of an abscess, which had enlarged it to the size of a hen's egg; this abscess, communicating by three perforations, completely covered up by adhesions, with Douglas's space. Strange to say, although the peritonitis was quite diffuse and general, causing recent matting together of the intestines all over the abdomen, there was no direct communication to be discovered between the ovarian abscess and the general cavity. The ovarian disease had been in the first instance completely enclosed by local adhesions, some of them perhaps corresponding with the attack a year before death; and at a much later period some change, not more distinctly definable, had converted the local into a general and diffuse peritonitis.

Now this case, I think, contains a great lesson for all of us. For although we could do almost nothing for this girl, seeing her as we did *in extremis*, and within twenty hours of her death, it is abundantly plain that at an earlier period something might have been done, by vaginal incision and drainage, to deal with the local abscess, and avert the fatal and diffuse form of peritonitis. But had the case been less desperate when admitted, it is equally plain that the one chance of treating it properly would have been missed had the diagnosis been allowed to rest at the point of declaring it to be simply an acute peritonitis, and omitting a vaginal examination.

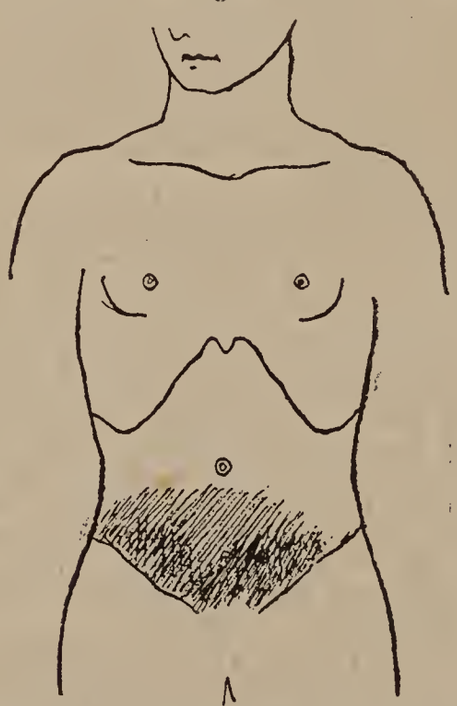
The moral, from the practical and clinical point of view, that I wish you to draw from this case, although you did not see it for yourselves, is—never be satisfied, in any case, with a diagnosis of peritonitis *only*, whether acute or chronic. Seek always, and everywhere, for a local cause in some organs or system of organs; and seek with persistence and thoroughness by examining the history, the symptoms, the physical diagnosis in its largest and most comprehensive sense. You may possibly fail, not because there is no local cause, but in some instances, at least, because you have not been able to discover one. But if you fail, when all is done, you will have done your best; and if you succeed, you will have got the key to your case, and with it, perhaps, a most important and necessary guide to the prognosis and the treatment.

Among our cases now in the ward, there was one, at least, in which the local cause was self-evident; and in this case, Lizzie McN., æt. 20, the local cause was pelvic (though quite different from the former case, and far more obvious); so obvious, in fact, was the cause, as not to be a trial of diagnostic skill at all. This was an average, though a rather severe, case of a very common affection among puerperal women, especially in such as are neglected in the after treatment. In its milder and more localized forms this disease used, in my day, to be called *pelvic cellulitis*, and was supposed to be an inflammation of the broad ligament; it is now, ever since the exhaustive researches of Bernutz, considered as involving almost always more or less of peritonæal inflammation, and, therefore, is called *pelvic peritonitis;* or, by those who, like Dr. Matthews Duncan, prefer a name founded on its origin and seat, *peri-metritis*, *i.e.*, an inflammation both of the womb

itself and of all the parts surrounding it, *including* the peritonæal investment. I do not stop now to give you a general history of this disease, referring you with all confidence to Dr. Duncan's recently published clinical lectures,[2] or to his special work on the subject, published in 1868, for fuller information on all the points which you do not find in your ordinary text-books. In the case before us the history and the symptoms were equally clear and unmistakable. The girl is a *primipara*, and was delivered exactly a month before her admission to the Western Infirmary. Two days after delivery she took "a weed," *i.e.*, a severe rigor with pain in the lower part of the abdomen, and cessation of the lochia. On the tenth day after delivery she had partially recovered, but was only able to be out of bed for a few hours; and at this date, very wrongly in my opinion, she was dismissed from the place where she was to have been treated during her confinement, and was sent home. You know what even married women will do under these circumstances to keep up appearances; and this poor girl seems to have found no way out of the difficulty, but to hang about on her feet when she was quite unable to work, and ought to have been lying flat on her back in a state of absolute repose. She became, as might have been expected, worse and worse, and a week before her admission to our wards was obliged to take to bed again, utterly prostrated by abdominal pain, no doubt with fever and also with sickness, vomiting, and diarrhœa, all of which persisted in a high degree at the time of her admission.

The state of this woman's abdomen to physical diagnosis on admission was remarkably characteristic of a *severe* case of pelvic peritonitis, extending secondarily beyond the limits of the pelvis. This rough diagram

Fig. 1.



shows what is written in greater detail in the report, according to Dr. Gemmell, who had charge of the wards for me during the last seven days of April, and before I had seen the patient myself; when, however, I found the essential facts but little different. What existed in the pelvis at this time, and for weeks afterwards, cannot be so easily shown, but it is easily to be described as the usual state of the parts in these cases—absolute fixity of the womb, as if it were wedged in a mould of plaster of Paris; dense induration of all the parts around, especially towards the right side; fulness towards the vagina in this situation, and exquisite tenderness on very moderate pressure with the finger. Evidently there was a risk here of abscess forming towards the vagina, and also no inconsiderable risk of the peritonitis (as in the case mentioned before) becoming general, and still more acute, and, therefore, deadly; but experience also tells us that many of these cases, even when as bad as this one, or worse, may undergo perfectly favourable resolution spontaneously; and the opinion of the best authorities is, I think, unfavourable to a premature interference with the knife.[3] We had, therefore, no hesitation in leaving her to the operation of internal remedies, aided by (what she should have had from the first, and what would have saved her, in all probability, from most of these complications) the most absolute rest possible in the recumbent posture. The only internal remedy of great importance used was opium, gr j. every four or six hours, on admission, and for more than a fortnight afterwards, and then every eight hours till she required it no longer; and along with this fomentations to the parts affected. I show you here a chart of the temperatures taken (as we always take them in acute cases) many times in the twenty-four hours, so as to be sure that we have really the maxima and minima. You will observe that they present oscillations extending often to three or four degrees Fahr., several times to five, once to nearly six degrees; but in this instance the quite sudden fall between night and morning from 102·8° to 97·2° was an exceptional fact, and probably portended some risk of collapse from diarrhœa or otherwise. As a rule the temperatnres seldom came within normal range except for a very few hours, and the maxima were 104°, 103°, 102°, during the first fortnight of our treatment. Then came a period of minor oscillations; 1° to 2° at most, but still abnormally high temperatures, extending over three or four days, and then greater oscillations again, but rather less than at first, extending well into the fourth week from admission, which corresponds with the eighth week, counting from her delivery; and then, at last, what may be well termed a crisis, or complete defervescence, for in two days we have a subsidence of temperature from 103° to 97°, and ever thereafter steadily normal temperatures, with all the circumstances of a complete and satisfactory convalescence.

I have no hesitation in saying to you that this case, and those of a like kind in respect of their cause, though now for years carefully studied and well understood clinically, are to me always fraught with a new sense of surprise, in respect of the remarkable evidence they afford of the restorative powers inherent in a sound constitution, under circumstances which, pathologically speaking, we should call very unpromising. And these cases are accordingly very important to be deliberately considered in reference to the general subject of peritonitis, as well as from their great interest in connection with the puerperal process. What they show is, that peritonitis, even of great extent and of a very acute character, is by no means always the extremely deadly disease it has sometimes been represented as being; and that its hopelessness in certain cases depends more on its cause than on the mere fact of the peritonæum being inflamed. In this instance we had, beyond all doubt, not only grave inflammation within and beyond the pelvis, but what Dr. Duncan calls "adhesive perimetritis," forming an indurated and resistent mass of intestines and other structures well up to the umbilicus. Yet the resolution has been apparently complete and progressive. The disease has dissolved away, as Dr. Duncan elsewhere expresses it, "like snow off the streets." What the precise *pathological* expression to be applied to the resolution in such a case as this, or what results it leaves behind, I have never been able exactly to ascertain; but as a clinical fact

[2] "Clinical Lectures on the Diseases of Women." 2nd Edition, 1883.

[3] See on this point particularly pp. 210 and 233, of Dr. Duncans Clinical Lectures above mentioned.

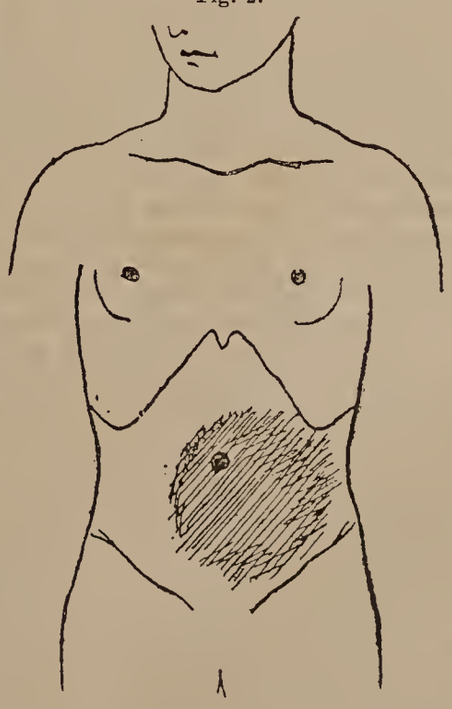
there is no doubt of the completeness of the cure in many instances, and I hope and believe it will be so in the case of Lizzie McN. I am even justified in affirming (because I know the fact) that women in whom equally grave and serious disturbance of parts has taken place once, may be capable of bearing children afterwards ; a fact difficult to explain from the point of view of the ovarian physiology and pathology, but a fact, none the less.

My personal experience of these cases is nothing like so large, of course, as that of a professed gynæcologist like Dr. Duncan, or even of many general practitioners, but still I have seen a good many of them, when, as often happens, they drift into our hospital wards, as well as in general consultation practice. One of the latter is strongly impressed upon my mind from its being that of the wife of an old friend, and a physician of much experience, as well as from its having been considered by Dr. Duncan sufficiently rare to demand very special notice, at p. 219 of the work already referred to. You may take the following brief narrative as the general physician's statement, his being the gynæcologist's ; they are not in any respect inconsistent, or essentially different. The case was brought under my notice first by correspondence, as the lady in question lived a long way from Glasgow. What was told me was, that after a delivery with some unusual incidents (which you will gather best from Dr. Duncan's narrative), the period had long been overpassed during which local inflammations are most apt to occur, and still there was fever, oscillations of temperature extending over several degrees, and keeping everybody anxious, although there was no great local suffering. Was it tuberculosis, acute or sub-acute ? The temperatures, I must confess, looked rather like this, indeed were almost exactly of the kind noticed in such cases ; but on the other hand, there were to be reckoned the eminently good antecedents of a woman who had borne nine children without accident or injury to her health, a good family history, and the entire absence, so far as her husband could discover, of local signs of tubercle. Her symptoms, in fact, were very similar to those of our patient last-mentioned, except that (if I remember aright) the local pain, indeed the pain altogether, and the pelvic symptoms in the early stage, had not been such as to attract nearly so much attention. I was not at all satisfied in my own mind, and proposed, after some interchange of letters, to go over and see her personally. This was, I suppose, at a date after the confinement later than the extreme date of the fever chart I showed you in Lizzie McN.'s. case, certainly not earlier than the tenth week. There was so little pain in the abdomen that it could all be handled, and even compressed without any complaint whatever ; but the state of the parts, from umbilicus to hypogastrium and flanks, assured me at once that changes had taken place there quite adequate to account for all the fever. As Dr. Duncan was interested in this case, like myself, both through personal friendship and professional connections, I was very glad to feel that in declaring this opinion, and also the complete immunity, so far as could be discovered, of this lady from tubercle, I was at liberty to cast off all further responsibility, with the knowledge that he was to be sent for next day. You will observe that he calls it a case of "remote" perimetritis, meaning thereby that the inflammatory changes were (as in the first very acute and fatal case I mentioned to you) far outside the pelvis, and not quite *demonstrably* in connection with the uterus ; and it was also, perhaps, remote in another sense, viz. : that the most serious and dangerous local changes occurred "long after the liability to perimetric attacks following delivery had ceased to be dreaded." In this respect, no doubt, the case tended to ambiguity of diagnosis. Nevertheless, the diagnosis, when once made, was perfectly clear, and the favourable issue in all respects has abundantly justified it. I may add that it is the case of this lady which was *first* in my mind when I affirmed a moment ago that after such accidents it is still possible for the pelvic organs to perform all their normal functions. How this should be so at all, under the circumstances, is to me still mysterious enough. When we consider the extremely delicate adjustment of the fimbriated extremity of the Fallopian tubes to the ovary, and the frequency with which this physiological arrangement becomes, in fact, impossible through adhesions, it is not less than marvellous that the power to conceive and bear children should ever be maintained after an attack of this kind. It is good to know that it is so, even if we remain puzzled as to the *how*.

It is stated in Dr. Duncan's report that this lady suckled her child till near the end of the second month. That was, perhaps, remarkable, but not quite so remarkable as another case I had, where a woman suffered an attack of extremely acute, and obviously septic fever, ending in a horribly stinking abscess, which discharged in the right groin for a considerable time, and owing to which she may be said to have swum for her life. But notwithstanding every persuasion on her own account and her infant's, this woman would not give up her child to a nurse. She suckled it throughout, and had plenty of milk ; and, though she was wasted to a shadow, the child throve apace, and was as fine an infant as ever I saw. The mother also recovered in time, became pregnant again at the end of two years, and came under my care a second time far on in the after-treatment, for symptoms similar in kind, but much milder, from which she once more recovered. But I am not sure, in this case, that there was any, or if any, much peritonitis ; there was an abscess around the womb, and its connections were towards the groin, and up in the direction of the sheath of the psoas and iliacus muscles.

The other case which I have mentioned to you in this connection as being at first one of ambiguous diagnosis, is that of Mrs. McN., æt 34, now in the ward, though apparently quite convalescent. This woman was admitted just before I returned to take charge in the very end of April, and her case was regarded and treated, with ample reason for the diagnosis so far, as one of rather acute peritonitis. She had sickness and

Fig. 2.



vomiting even five weeks before admission, but of the history and progress of the case up to that time we have no accurate information, only we know positively

that, when admitted, she had the symptoms and physical signs of a diffuse, almost general, peritonitis, which would have been exceedingly alarming, and of the gravest prognosis, had it not been that the temperatures were comparatively little disturbed. Although the abdominal tenderness and pain were extreme, and the percussion-dulness widely diffused (as indicated in the annexed diagram), there being also very marked semi-solid resistance, extending even above the umbilicus into the left hypochondrium, and, in fact, more or less present throughout the abdomen, we did not recognise fluid as being present, according to the physical tests. It was a case, therefore, of *adhesive* peritonitis; and the fever, if ever high, had ceased to be so almost about the period of her admission; since the temperature after admission never exceeded 100·4° in the axilla. I was not very anxious about the immediate prognosis on this account, even although not satisfied as to the cause. Opium in the usual doses, and fomentations, had already pretty effectually dealt with the worst-looking symptoms before I saw her; and I did not care to disturb her unnecessarily, as I thought. But in lecturing to you a few days afterwards upon the case, I was obliged to put, as it were, five questions, and to answer them each in a negative sense. These five questions are as important for your instruction now as they were then, and you will find them in your note-books, with my commentary. They were as follows:—(1) Typhoid fever, with incipient perforation? Suggested on her admission to Dr. Gemmell as at least a possible cause, so far supported by the pain, distension, vomiting, &c., but negatived by the temperatures and the absence of spots. (2) Obstruction of the bowels? Constipation had been extreme, but after the free use of enemata we were able to infer that there was neither mechanical obstruction nor fæcal accumulation in the descending colon. (3) Perityphlitis? (Dismissed after careful consideration of the details of the physical diagnosis). (4) Pelvic cause? (Dismissed, as will presently appear, on unsatisfactory and insufficient grounds). (5) Tubercular peritonitis? (A view fairly to be entertained in all such cases when other causes are excluded; but, so far as actual evidence could be obtained, not borne out by the previous history, or the state of any organ after careful examination).

I had hardly completed this necessary review of the facts and probable causes in your presence, before I began to entertain a misgiving about No. 4; the presumed absence of a pelvic cause. The patient was a widow, her husband dead for four years, her last child born eight years ago; and her recovery from this confinement, at the time and since, apparently perfect. With all the experience of maternity arising from three pregnancies with normal confinements, she had at no time expressed any suspicion as to the state of her uterine organs, and her menstruation had continued regular up to about three weeks before the first symptoms; which, therefore, may very probably have coincided, more or less closely, with a menstrual period; but even when the question was directly put to her she appeared to entertain no misgivings on this point. Although extremely constipated, she had had no pain in defecation, and the only urinary symptom she could be brought to admit, even by a direct question, was some uneasiness, not during, but after, micturition. The urine was normal. Still I had misgivings, and accordingly the hospital report bears that on the 15th of May, I was "led to review the evidence on which it was concluded, perhaps too hastily, that the disease had not a pelvic origin." At this time, it was stated, "while the acute symptoms have altogether subsided, and clear percussion is coming back in all the regions above the umbilicus, the lower part of the abdomen still gives very unsatisfactory percussion. On examining *per vaginam*, the uterus is found impacted to a considerable extent, and the os and cervix displaced high behind the pubic bone, while a very considerable hardness, perfectly devoid of any feeling of fluctuation, or of much tenderness on palpation, is felt to be interposed between uterus and rectum." These facts were corroborated by my colleague, Professor Leishman, who in addition was able to ascertain that "the uterine sound passes three and three-quarter inches in the normal axis. Dr. L. considers it to be an elastic and doubtfully fluctuant tumour, occupying the pouch of Douglas; and that it may be either a blood tumour, or ovarian in origin. This, however, can only be determined by watching the progress of events."

The *dénoûement* of this interesting, and probably rather rare, case is still in suspense, but up to the present date everything has gone on perfectly well. The lesson it affords to you, and to all of us, apart from the ultimate issue, has been already sufficiently insisted on in these remarks.

[An examination *per vaginam* at the date of returning the proof of this lecture (July 2nd) shews that even now the uterus is still impacted in the pelvis, though without the slightest tenderness on palpation or suffering of any kind; and, what is very remarkable, the position of displacement high in the pelvis, adverted to above, has been exchanged for one more than usually within easy reach of the forefinger, so that without entering the vagina much beyond the proximal joint, it is able to be inserted into the os uteri.]

(*To be continued.*)

CLINICAL LECTURE

ON PERFORATING ULCERS OF THE SEPTUM NASI.

By JONATHAN HUTCHINSON, F.R.S.,
Emeritus Professor of Surgery in the London Hospital College.

Gentlemen,—I believe there is a very general belief that perforating ulcers of the septum of the nose imply syphilis. I feel sure that this inference is often incorrect, and think that I shall be able to convince you that there is a form of chronic ulceration which often results in perforation of the cartilaginous part of the septum, the causes of which are very obscure When it occurs in young persons, there sometimes appears reason for associating it with that state of health which produces common lupus, but when it happens to those of middle age or more advanced life, it is not usually attended by any conditions of ill-health or concomitant phenomena which justify us in associating it with any special diathesis.

I am speaking now more particularly of a very slowly progressive ulcer, which is usually located just within the nostril, or about half an inch from the edge of the columna. It always begins first on one side, and does not affect the other until a considerable interval has passed, and there is usually a period of several months, or perhaps years, of superficial opposite ulcers before the final perforation takes place. During this stage the patient probably pays but little attention to the ailment, or simply acquires the habit of picking the sores. Alarm is taken when there is a hole, though not by any means always then. I have found these holes in several persons who made no complaint of them, and came under care for other maladies. Destruction of the septum is of course common enough in syphilis. It is the fact of its frequency which has led to the widespread belief that all perforations are syphilitic, and which renders it neces-

sary for me now to try to prove that some are not. In a general way the ulcers which are syphilitic, that is, in an active sense, are, I think, pretty easily distinguished. They progress more rapidly than those which I have now to describe, and they usually begin further back, and involve the vomer itself. Respecting the precise relations of some of those with which I am now dealing with syphilis, I must, however, speak with caution. Although not in any active sense syphilitic, that is, not to be cured by the internal use of specifics, there are in not a few cases facts which make it not improbable that they may have a remote connection with a taint. Just in the same way there are some forms of chronic skin disease of a lupoid type, which appear to have a remote connection with syphilis, but which are cured best by local treatment. Whilst thus, however, admitting that some of my cases may possibly have been remotely due to syphilis, I unhesitatingly assert that several others, exactly like them in all their features, were certainly not so. Of this negative fact the evidence is, I think, conclusive.

The first case which I recollect to have attracted my attention to this subject was that of a gentleman named C., who was sent to me by the late Dr. Arthur, of Commercial Road, many years ago. He had a very large perforation of the septum, but without deformity. I always thought it syphilitic, but he always protested that he had never had any form of venereal disease. He had no other indications of disease, and as his ulcer did not heal under specific treatment, but slowly progressed during many years, I was obliged to give up the suspicion. This patient has now been dead several years, and I believe that his ulcer at the time of his death was still not quite healed. He was about 45 years of age, and seemingly in good health.

The next case which I shall cite is one of the last that I have seen, and a very typical example of the affection.

Case II.—The case of Mrs. S. had caused very considerable anxiety both to the patient and her medical advisers before I saw her. She was a lady about 44 years of age, apparently in excellent health, and not the subject of any special diathesis. She had a hole through the septum which would have admitted the tip of the little finger. It was in the usual place, that is, just within the nostril, and every part of it was easily in view. The posterior and lower part of its edge presented an ulcerated surface, and some small granulations. All the rest of the edge of the hole was quite soundly healed, but there was not much swelling about it. She was sent to me by Mr. E. R. Butler, of Cromwell Road, and had previously been seen by my friend, Mr. Bellamy. Iodide of potassium had been given, and nitric acid had been carefully applied. The question of most importance was whether the disease was malignant, and on the other hand, whether it was of a specific nature. It had certainly progressed rather rapidly, for Mrs. S. assured me that the perforation had only been complete for about six weeks, and progressed in spite of treatment.

I was told, however, that it had been threatening for upwards of two years, and that it had been preceded by the usual stages of an adherent scab, without pain or irritation. This scab had appeared first on one side, and subsequently on the other also. As soon as perforation occurred, the ulcer had spread rather rapidly. Part of the ulcerated edge had been cut away for microscopic examination, but nothing definite had been revealed.

In this instance I had no hesitation in putting aside the suggestion of specific disease, for there was not a tittle of evidence to support it. Nor, I must admit, was there any more in favour of the diagnosis of struma or lupus. Neither the patient nor any of her relatives, as far as she knew, had suffered from chronic skin diseases. It was difficult to avoid a fear that it might be allied to the rodent ulcer. I do not, however, think that it is.

Let me relate to you next a case which is a very close parallel to it, and of which the cure proved that it was not malignant.

Case III.—Miss T., a lady of 44, stout, florid and apparently in good health, was sent me by Dr. Hughlings Jackson on account of acne rosacea of the face.

She was the sister of a well-known medical man, and there was no reason to suspect either specific disease or scrofula. She had suffered much from headache, cold extremities, and general nervousness, and had extreme vesical irritability, so much so that at one time I suspected the existence of stone. Amongst other things she complained of a little soreness of her nose. I examined it and found an opening through the cartilaginous septum about big enough to receive a cedar pencil, but not quite round. It had clean red edges, with some superficial ulceration around their margin.

On questioning Miss T. as to her symptoms, she said that she had been aware of some little obstruction in the nose about a month. It had bled a little occasionally, and she had noticed some whistling in drawing her breath which had annoyed her. Beyond these she had had no symptoms whatever, and had no suspicion that any ulceration existed. I cauterised the edges of the ulcer with the acid nitrate of mercury, and gave her some yellow oxide ointment. Under these measures the ulceration soon healed. She was under my observation for six months afterwards, on account of her other maladies, and there was during this time no spreading of the ulcer in the septum. It seemed to be soundly healed.

(*To be continued.*)

ON SOUNDING FOR IMPACTED GALL-STONES.

By Dr. GEORGE HARLEY, F.R.S.

That within the last fifty years the whole theory and practice of Medicine has undergone a complete revolution, no one seeks to deny. That a new era dawned upon our art when the microscope, stethoscope, test-tube, and thermometer crossed the threshold of the sick-chamber, all readily admit. But there are still amongst us many who insufficiently appreciate the immense collective advantages which have accrued to Rational Medicine from the hundred and one trifling physical aids to diagnosis which have been introduced during the last couple of decades. This arises from the majority of persons overlooking the fact that a few easily recognisable physical signs are worth a whole cart-load of describable symptoms in the detection of obscure disease. For while symptoms are, even at best, merely fluctuating quantities, not alone from their intrinsic value materially depending upon the mental capacity, moral courage, and veracity of the narrator, but from their very significance being complex ; a physical sign, when correctly interpreted, has always the same definite and indisputable value, from its being an independent factor, which the interrogator sees, feels, or hears for himself. Added to this, the knowledge of the fact that the cable of symptomatology is nearly "payed-out," and consequently the onward career of Rational Medicine to her legitimate goal—that of an exact science—must in future almost entirely depend on the acceptance and judicious application of easily workable physical aids to the recognition of internal diseases, induces me to avail myself of this favourable opportunity of making known to my professional brethren an instrumental method of indubitably ascer-

taining the existence of impacted gall-stones. A point of no mean importance, seeing how many difficulties beset the symptomatic path of diagnosis in this most fatal form of affection. Before proceeding to do so, however, it is advisable for me to make a few prefatory remarks on the clinology of biliary concretions. For, judging from the reports of the speeches made at our metropolitan as well as our provincial medical societies, when the subject of gall-stones is discussed, a woeful amount of ignorance regarding both their symptomatology and pathology is prevalent in the profession. This may to some appear strong, if not even ungenerous, language. But everyone who has given attention to the reported remarks of some of the speakers, hospital physicians as well as surgeons, in the discussions which have followed the reading of recent papers, will acknowledge that they are perfectly justifiable. I even doubt not that some of the speakers themselves, after they peruse the facts I shall presently adduce, will feel that this stricture is by no means uncalled for.

One of the commonest of the false statements enunciated is that gall-stone affections are not generally dangerous. Exactly the contrary is the case; the general ignorance of the fatality of gall-stone cases being due to the unfortunate frequency with which patients succumb to them without the medical attendant's having had the remotest idea of the true pathology of the case he was treating. The reason of this is not far to seek, for it lies, I believe, in the fact of his having been falsely taught that all dangerous gall-stone cases are associated with jaundice and paroxysmal pain; whereas it actually happens that the majority of fatal gall-stone cases are unassociated with either the one or the other of them. Incredible as this may appear, it is nevertheless perfectly true. For there is no jaundice, and no paroxysmal pain (indeed, in the first instance very little pain of any kind whatever) when a gall-stone ulcerates its way out of the gall-bladder. Should the stone in this case enter the peritonæum, a fatal peritonitis is the result. Should it enter the intestines, if large it kills the patient by ileus; if small, it passes safely down the intestines until it reaches the ileo-cæcal valve where it often sets up such an amount of irritation as speedily induces a fatal enteritis. The unsuspected gall-stone may kill even more rapidly still. As when in the course of its perforating career it opens a blood vessel, which, if it pours its contents into the stomach, leads to the mistaken diagnosis of hæmatemesis; if into the intestines, gives rise to bloody stools. Or it may burst into the peritonæal cavity and the patient become suddenly collapsed, and die without either a single trace of the hæmorrhage or its exciting cause being visible to reveal the true nature of the case. That such fatal cases of gall-stone perforation are far from uncommon I know from personal experience. No less than four, and strangely enough all in gentlemen of above forty years of age, have fallen under my notice within the last year. One died six hours after I saw him, another within twelve, a third within forty-eight, while the fourth happily recovered, and that, too, notwithstanding that pure blood was passed both by mouth and rectum.

As it may appear to some a novelty to be told that gall-stones are so often fatal without so much as their existence having been suspected, and a single illustrative example is more impressive than a whole column of general remarks, I shall briefly relate one of the fatal cases just referred to, which has the additional advantage of showing how, even when gall-stone symptoms exist, one may be entirely misled in both diagnosis and treatment, from their not being in exact accordance to what is regarded as orthodox law. Early in the present year I was summoned to Brussels to see a Belgian gentleman, aged 58, along with Mons. Capart. On reaching the patient's bedside I found him exsanguine, and almost pulseless. He complained of dull pain in the lower part of the liver, with great tenderness on pressure in the region of the gall-bladder, which was not distended. The liver was of the normal size, and there was no jaundice. The history I received was, that he had always been a bilious subject, and had suffered from painful dyspepsia, that he once had jaundice, and passed a small gall-stone. The dyspeptic symptoms not improving under treatment, he betook himself to Paris, and consulted the gentleman who was recommended to him as being the leading physician. After a careful examination of his case it was diagnosed "hepatalgia," and a course of electricity was prescribed. Feeling no better after several weeks of daily galvanism he returned to Brussels. His symptoms gradually became more severe, and four days before I saw him he was suddenly seized with coffee-ground vomiting, and tarry-looking dejections. Seeing that the case was undoubtedly one of gall-stone perforation, and that the patient was already blanched from loss of blood, I naturally enough prognosed that if the hæmorrhage was not immediately arrested, death was inevitable. For twelve hours he rallied under treatment, but within the next twenty-four, pure blood began to come away, both upwards and downwards, and in less than forty-eight hours from the time I first saw him he was a corpse.

The prevailing ignorance regarding the fatality of gall-stones may also in a measure be due to the fact that not only are the poor far less liable to them than the rich, but when they seek relief for them in hospitals, the prominent sign instead of the pathological conditions giving rise to it is often treated as the disease; as well as that from its being no rare occurrence for gall-stones of considerable size to be met with at the autopsies of patients who, during their sojourn in the hospital, never manifested a single symptom of them, even hospital physicians have been led to regard them as harmless. The entire absence of both signs and symptoms in many gall-stone cases is, however, readily explicable, without its entailing a belief in their non-dangerous nature. For it is due to the fact that, from the majority of gall-stones being slowly formed in the gall-bladder itself, they give rise to no signs or symptoms as long as they remain there. No, sometimes not even to biliary functional derangement, though the viscus be choke-full of them. This is on account of a gall-bladder not being essential to life, as is proved by the fact that people have grown up to adult life without having ever possessed a vestige of one. And many species of animals have normally no gall-bladders, for example the horse and the deer. There is nothing then surprising in the fact that gall-stones, though fatal things, may yet be found at necropsies in the gall-bladders of persons who never complained of them. Indeed, it would rather be surprising if it were otherwise, seeing that they are usually formed there, and that their career of discomfort and mischief only begins when they attempt to get out of the gall-bladder either by directly perforating through its coats, or by forcibly entering the cystic duct.

From the remarks which fell from the speakers, at the discussion on my recent paper on "Gall-Stone Sounding," at the Royal Medical and Chirurgical Society, it further appears to be very far from generally known that, notwithstanding that a dozen—even a thousand—gall-stones may exist for years in a patient's body, without giving rise to a single sign or symptom by which their presence can be suspected, all the most marked signs as well as symptoms, given in text-books as indubitable evidence of the existence of dangerous gall-stones, may be present without a single stone or biliary concretion of any kind whatever existing in the sufferer's body. This is a startling fact no doubt, but

it is nevertheless quite true, as I shall now proceed to show. For :—

(*a*) Gall-stones never produce jaundice, pipe-clay stools, nor bilious urine, except when they become impacted in a duct. And the only ducts in which their impaction leads to this result are the hepatic and common bile ducts.

(*b*) Not only can their presence in these ducts in the majority of cases be recognised, but even differentiated. And what is more, their impaction in the intra-hepatic as well as in the cystic duct can also be detected, though in these cases there is no jaundice, no pipe-clay stools, and no saffron-coloured urine. In order to make this perfectly plain I shall put the matter in the form of an easily comprehensible table.

other equally potent obstructing cause acts in precisely the same way as an impacted stone does. This is no mere supposition, it is a fact.

(*c*) For it is found that the identically same signs of jaundiced skin, pipe-clay stools, bilious urine, &c., are met with when the hepatic or the common bile duct is obstructed by entozoa, cancerous or other tumours growing within them. Or when by external pressure a tumour of the head of the pancreas, of the pylorus of the stomach, or of the liver itself blocks up the channel of the duct. An additional common cause of permanent obstructive jaundice, is the closing up of the duodenal orifice of the bile duct by a cicatrised ulcer. All of which non-gall-stone forms of obstruction not unfrequently baffle even the most skilled specialists to differ-

THE PRESENCE OF THE SIGNS AND SYMPTOMS IS INDICATED BY THE FIGURES. THE ABSENCE BY THE LINES.

Gall-stones Impacted in.	Distended Gall-bladder.	Enlarged Liver.	Jaundiced Skin and Eyes.	Pipe-clay Stools.	Saffron or Black-coloured Urine.	Rigors or Chills.	Flatulent Dyspepsia.	Vomiting or Nausea.	Hepatic Tender-ness.	Spasmodic Pain.
The Common Bile Duct... ...	1	2	3	4	5	6	7	8	9	10
Hepatic Duct	—	1	2	3	4	5	6	7	8	9
Cystic Duct	*	—	—	—	—	1	2	3	4	5
Intra Hepatic Ducts	—	—	—	—	—	—	—	1	2	3

* Although the gall-bladder is in these cases never distended with bile, if the impaction be complete, and is continued sufficiently long, it may become distended by white mucus-secretion. For the *modus operandi* in the formation of white liquids in the gall-bladder, see the writer's book on the Liver, where its physiology as well as pathology is given in detail.

After having thus shown how comparatively easy it is not only to diagnose, but even to differentiate the various forms of impacted gall-stones, the reader may perhaps wonder why I take so much trouble to make known an instrumental method for detecting them. Here is my reason, and a very potent one it is. More than twenty years' experience of gall-stone cases has not only convinced me that many patients annually die from the effects of impacted biliary concretions, whose lives might in all probability be saved were the obstructing body artificially extracted ; but at the same time made me painfully conscious that, as has just been shown, all their most characteristic signs and symptoms may be manifested by a patient who has not a vestige of a biliary concretion of any kind whatever within his body. I believe therefore that it would not only be injudicious, but criminal for any physician to recommend to a patient to submit to what a hospital-surgeon had the temerity, at the debate on my paper, to deliberately propose doing as a means of diagnosis. Namely, to incise a patient's abdomen, cut open his gall-bladder, stitch its edges to the lips of the wound in the abdominal parietes, and then search for the impacted stone in it ; showing that his idea was, that dangerously obstructing calculi are to be found in gall-bladders. Moreover, be it noted that this formidable diagnostic procedure was proposed by him as being simpler than the operation of sounding with a trocar not bigger than a knitting needle. I shall now show how this venturesome form of surgical prospecting is unjustifiable. For even should an inoffensive calculus be accidentally found in the gall-bladder, it would not as a sequence follow that the patient's abdomen had been necessarily and advantageously incised. For the following potent reasons :—

(*a*) It is in no case the stone itself which produces the dangerous symptoms, but solely the obstruction to the flow of bile into the intestines. In so far then as the stone is concerned, did it not prevent the passage of the bile into the duodenum, it would in all probability lie as inoffensively in the bile duct as stones are known to lie in the bile reservoir.

(*b*) It being the obstruction then, and not the stone itself which is the real source of danger to life, any

entiate. It is scarcely surprising then that I strongly advise practitioners to make themselves perfectly sure of the obstruction being due to a gall-stone before proceeding to lay open their patient's abdomen in the sanguine expectation of finding one.

Although my method of sounding for stones may not be entirely devoid of danger—for no operation on the human abdomen is, not even the simple one of tapping—it certainly has the advantage of being less rash, as well as less dangerous to life than that of cutting down with a knife, either on ducts or gall-bladders, in search for gall-stones which may have no existence. Moreover, I have already performed the operation successfully, and what has been done once may be done again. The instrument employed was a six-inch long French exploring trocar, of somewhat less diameter than an English No. 1 catheter. And I now recommend that it should be provided with a blunt-nosed steel pilot, to be introduced after the trocar has been inserted into the abdomen, and before the search for the stone is proceeded with.

After the patient is put under the influence of an anæsthetic, the operation of sounding may be performed in the following wise.

1st. Push the trocar through the abdominal parietes in the direction of the common bile duct.

2nd. If the instrument impinges on no hard solid, withdraw the stilette and judge of the situation of the cannula's point by observing what kind of fluid flows from its free orifice—bile, abdominal serum, blood or intestinal fluid.

3rd. Being satisfied that the point of the cannula occupies no dangerous position, introduce the blunt-nosed pilot, and proceed to search about in all directions for the stone. The presence of one will be readily recognised by the fact that no hard substance whatever exists in the neighbourhood of the gall-bladder and bile ducts. And a gall-stone when struck, either in the gall-bladder or ducts, gives the same characteristic sensation to the fingers as a urinary calculus.

As several of the speakers at the debate on my paper objected to this plan of sounding, on the ground of the danger of peritonitis being induced by the bile escaping into the peritonæal cavity, notwithstanding

that I had cited a case where no less than thirteen pints[1] were removed by tapping from the abdomen of a boy whose gall-bladder had been ruptured three weeks previously, and they ought to have known that both distended gall-bladders and bile ducts have been beneficially tapped, I deemed it advisable to see what would actually be the result of puncturing a distended gall-bladder with my exploring trocar. Especially as one of the speakers had, forgetting that the coats of bile ducts and gall-bladders are elastic, inconsiderately suggested that the moving about of the instrument would enlarge the puncture.

Accordingly, along with Prof. Schäfer, I performed the following experiment :—A dog which had been kept fasting for 26 hours, in order that his gall-bladder might be fully distended, was rendered insensible with chloroform. The abdomen was opened, and into the distended gall-bladder I inserted my trocar. Twisted it about and then withdrew it. No spurt of bile whatever took place. Nothing more than an oozing followed. The oozing even soon ceased, from the coats of the gall-bladder (which, be it remembered, are even very thin in a small dog) contracting as the viscus emptied itself. In order, then, that all risk of a dangerous exudation of bile into the peritonæal cavity may be avoided, it is merely necessary to withdraw some of it before removing the cannula.

In those cases where the obstruction has given rise to great distension of either the bile duct or the gall-bladder, and from the orifice of the cannula bile flows when the stilette is withdrawn, it might perhaps be advisable to empty them of their biliary contents before proceeding to search for the suspected stone.[2]

I shall now give the history of the case of impacted gall-stone in which I successfully performed the operation.

(To be continued.)

NOTES ON THE RADICAL CURE OF HERNIA.

By W. MITCHELL BANKS, F.R.C.S.

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If in writing these notes I may appear to be somewhat dogmatic, I must offer by way of apology two reasons :—first, that where it is necessary to be brief, one can hardly be otherwise than dogmatic; and secondly, that I am speaking, not from a theoretical point of view, nor from the knowledge gained from a few cases, but from a fairly extended experience. I have now performed the operation for radical cure on twenty-five cases of inguinal, seven cases of femoral, two cases of umbilical, and three cases of ventral hernia; as well as on thirteen cases of strangulated inguinal, eleven cases of strangulated femoral, and two cases of strangulated umbilical hernia. In all, sixty-three cases of every kind, ranging from the simplest possible variety, to some that may almost be termed gigantic. As regards the cases of strangulated hernia, the application of the radical cure being merely an accessory, it must of course be admitted that we do not derive from them any information as regards the safety of the operation, but, on the other hand, we obtain the same information as to its subsequent utility that we gain from cases primarily operated upon for radical cure.

The term "radical cure" misleading.—The term "radical cure," implying as it does a thorough and perpetual cure, has, I suspect, been rather deterring to the progress of the operation than otherwise. People have been led by it to expect too much, and have in consequence naturally been disappointed. It is popularly understood that a patient upon whom a radical cure has been performed, need never again wear a truss, nor ever again be in danger of his hernia coming down. This is unfortunately far from being the case. The instances where a light truss can be dispensed with are the minority; and, as regards a return of the hernia, I argue that any man in whom a hernia occurs, is naturally a man of lax fibre and patulous abdominal apertures. Now, it is not to be expected that you can make him better than he was before the rupture occurred; so that if you only make him as good, then you only make him a man of lax fibres and patulous abdominal apertures once more; and such a man ought always to wear a truss as a protection. No operation will ever convert him into a hard-fibred, tight-ringed man, so long as his anatomical construction is what it is. Whatever may be the case with children, we ought in adults only to hope to put the patient in the *status quo ante descensum;* in such a state, to wit, that a light support will keep any hernia from coming down. By viewing the operation in this light, we shall neither disappoint ourselves nor our patients, and we shall form a much truer estimate of the value of operative proceedings. For "radical cure of hernia," one ought to substitute "curative treatment of hernia by operation."

No little harm has been done by surgeons who have been so anxious to rush into print that they have at once published their one or two cases the very week the patients have left hospital. These are duly labelled "cured" and are reported as leaving without any trace of rupture. Such cases are simply worse than useless as regards the determination of the ultimate value of the operation. Let us see how the patients are twelve months afterwards, and let us know what they have been doing in the meantime, and then some good purpose will be served. In August, 1882, I read a paper at the meeting of the British Medical Association, at Worcester, on this subject, in which a table was given of over thirty cases, with what had become of them during periods of two years to five or six months. The present article not being a statistical one, I do not bring forward any figures, but I have nearly every one of the cases I have treated under observation, and trust before long to give a detailed report of their condition after the lapse of a sufficient period. At present, I only desire to say that I consider the operation a very valuable and useful one, and am sure that, as it gets more and more perfected, it will be the means of enabling many persons to live in comfort who have hitherto lived in distress, and will ultimately lead to a saving of human life; only too much must not be expected from it.

The cases suitable for operation.—As I am strongly of opinion that the majority of persons, even after the performance of the so-called radical cure, ought to wear a light truss, it follows that any person troubled only with a hernia of moderate size, which can be comfortably and securely kept up by a truss, ought not to be subjected to any operation whatever. His condition will not be *very* greatly improved, and he will have been exposed to the risk of a surgical proceeding. I have not unfrequently been consulted by patients who were willing to undergo the risks of an operation, merely to get rid of the bother of wearing a truss, even although admittedly quite easy and comfortable; but I have always refused to operate, telling them that

[1] Medical Chirurgical Society's Transactions, Vol. IV.

[2] Dr. Whittaker detected gall-stones in the gall-bladder by means of a hypodermic needle (*New York Medical Record*, 1882), and on one occasion, while I was exploring a liver, the trocar accidentally penetrated the gall-bladder and struck a calculus, which subsequently, at the autopsy, was found to be of the size and shape of an apricot stone.

after the operation they would be hardly any better off.

Again, nearly all cases of congenital inguinal, or umbilical hernia, occurring in children, are curable by the prolonged wearing of a truss, and, in the case of respectable parents who can afford to purchase good instruments, and have the intelligence to apply them, no further treatment need be contemplated. The great difficulty is with bad congenital inguinal herniæ in the infants of poor people, who can seldom get good trusses, and who are too negligent and too ignorant to apply them properly, even when they are given to them. Such cases are constantly turning up at hospitals and dispensaries, and when aggravated become legitimate subjects for operation. But before performing any radical cure, every possible means should be tried to secure the wearing of a truss, which can very generally be done, if only the mother can be got to throw herself into the treatment with the least approach to intelligent enthusiasm. The following may serve as an example of the sort of case which really stands in need of operation. The patient, aged $2\frac{1}{2}$, was a thin, miserable, pallid creature, whose mother was extremely poor, and as regards carrying out any surgical treatment, practically anencephalous. He had two large double scrotal herniæ, and as he was always yelling and crying, for reasons only known to himself, the scrotum looked generally as if it were at bursting point, while the inguinal apertures were greatly dilated. On the left side, I first tried Spanton's operation, keeping the screw in for about twelve days. A good deal of suppuration and a great deal of thickening resulted. For some weeks it seemed as if this were going to succeed, but by degrees the adhesions gave way, and the gut came down as badly as ever. So on the right side I removed the sac and stitched up the ring. The sac was extremely delicate and the cord very minute, so that it was a work of considerable difficulty to clear the former. A portion of sac was retained and sewn up, so as to make a tunica vaginalis, and the upper part was stripped up and cut away. Then we waited about three months to see how this would do. Although the child's conditions were exactly the same as before, the bowel could not force its way down now. So the left side—the one upon which the Spanton's operation had been done—was subjected to the same proceeding, and now, after two and a half months, holds thoroughly. As a truss fits quite easily, the child is to be provided with one and sent home, for, although there is not the slightest impulse on coughing, I don't think he ought to be trusted without support; it would only be courting the spoiling of a good job. If he wears a truss for four or five years he will be safe. In noting the failure of Spanton's operation it is not with the view of decrying it, as I think very highly of it for cases of inguinal hernia of mild character where there is no adherent omentum. But so serious was the rupture in this case, and so great the amount of expulsive force which the child seemed able to bring to bear, that no operation which depended solely upon inflammatory adhesion and nothing else could possibly hold up against the strain. At the Liverpool Children's Infirmary, where much excellent work in the way of radical cures has been done, I believe that the opinion is that for really bad cases of congenital hernia, Spanton's operation is not sufficiently curative, and that the only thing is removal of the sac and closure of the pillars of the ring.

If it be admitted that in adults the only ruptures which need be tackled are those which cannot be satisfactorily kept up by a well made truss, we must next note the reasons why the said ruptures are not amenable to the operation of a supporting instrument. The first consists simply in the enormous size of the rupture itself, combined with great patency of the hernial aperture. Many ruptures by reason of neglect become so huge that no instrument can possibly hold them up, except by the exercise of a pressure which soon becomes unbearable. There is no doubt that these great herniæ most emphatically stand in need of radical cure, but there has been a natural tendency to fight shy of them on account of the magnitude and danger of the operations which have to be performed. I have lately been attacking specimens of very great size, and am beginning to get over my dread of them, but there is no doubt that some of the operations have been very extensive and have given rise to no little anxiety. Like ovariotomy, they were certainly of a kind that would have subjected any one who did them and failed to a criminal prosecution forty years ago. In the case of very large ruptures, it is, therefore, only right fully to explain to the patients that they run a not inconsiderable amount of risk, and to leave pretty much with themselves the decision of what is to be done. For, after all, one must remember that a person with a very big and very troublesome rupture may live long enough, and do plenty of good work; consequently, a death from an "operation of convenience," which, perhaps, has been urged upon the patient by the surgeon, is a source of great regret and mortification to him, as I myself experienced in the only fatal case which I have yet had. Of course, in this, as in every other surgical operation, one must take into account the age and strength of the patient. To operate upon a broken down used up old man of three-score and ten with a rupture as big as his head, is only to court destruction. The operation is one which must not be done recklessly, but which must have a strong motive for its performance and an almost certain promise of success.

One of the largest cases I have attacked, was in the person of a very big fat woman of 45, who came some months ago from the Isle of Man. She had a rupture which no instrument could keep up, and which was rendering her useless, so she was willing to submit to anything. It was a right inguinal hernia, which had made its way down into the labium. From the inguinal ring to its lowest point, it measured 15 inches, and its girth at the widest part was 20 inches; in fact it reached most part of the way down her thigh, and practically obliterated the vagina. The tips of four fingers could be pushed into the ring. The contents consisted of bowel alone and were completely reducible, which was very fortunate. Before commencing the operation, I reduced the hernia, and then entrusted to an assistant the duty of keeping it up, which he accomplished by stuffing the fingers of both hands into the ring, and pressing up as hard as he could. The process of dissecting out so large a sac, was as might be expected a long and tedious one, involving the tying of innumerable small vessels. Luckily, however, there was no spermatic cord to trouble about, as I gathered up with the sac any vestiges of round ligament that remained, so that there should be nothing to pass through the canal afterwards. During this proceeding the ether caused the patient to retch and cough a great deal, and so tremendous was the force exerted, that twice the bowels rushed down into the partially dissected sac, in spite of the utmost exertions of the assistant at the ring to hold them up. Had the sac been opened they would have been all over the table; however, chloroform was administered, and then the patient became quiet. I have very often had to leave off ether in these cases, owing to the impossibility of going on with the operation while the patient was coughing and straining. When the sac was completely dissected out, the neck was so large that I did not venture to tie catgut round it, but stitched it through and through from side to side, cut it off, and then stitched it over the cut edges again. Then the pillars were pulled together in all

their extent by five very thick wire stitches; and finally, a great piece of loose skin about the size of a page of this journal was swept away. A bystander jocularly remarked that the sac would have made a very respectable peritonæum for a five year old child. The parts healed excellently, and the patient is now at home in perfect comfort wearing a good firm truss to prevent any descent.

The second reason why certain ruptures are not amenable to the action of trusses is the presence of adherent omentum in the hernial sac, by which the ring is always kept open, and a sort of inclined plane produced, down which the hernia is always free to descend, seeing that no truss can possibly stop up the hernial aperture in an effectual manner. In the majority of cases of femoral rupture, the first thing to descend is a small piece of omentum. This becomes adherent to the sac, and cannot be returned. It grows hard in texture, and its neck becomes narrow and pedunculated, so that it has all the feeling of a deep-seated enlarged gland. In that condition it may remain for a long time, the patient being unable to wear any truss, until some extra exertion forces down a small knuckle of bowel, which straightway becomes acutely strangulated. From the rapidity with which the sharp edge of Gimbernat's ligament cuts into the bowel in these cases, they are usually most dangerous. From which it comes about that a patient with a small femoral hernia consisting of adherent omentum goes about in constant danger of his life, never sure that a piece of bowel may not at any moment follow. Now, the dissecting out of these small femoral sacs, and the separation and removal of their contained adherent omentum, is so easy and so safe a proceeding that I should have no hesitation in always strongly recommending an operation in such cases. The instance of E. A., a housemaid, aged 32, is tolerably characteristic of these cases. Nearly four years before her admission to the Infirmary in March, 1881, she discovered by accident that there was a small lump in her groin. It seemed to go away, or at any rate it did not give her any trouble, and so she did not pay any attention to it. In June, 1880, after a good deal of exertion she was attacked with severe pain in the groin, lasting for some hours. In August occurred another similar attack, and then she applied to a medical man, and was fitted with a truss. Again, in November, two more attacks, and now the lump in the groin became stationary, and she wore her truss upon the top of it. In January and February, 1881, the lump gave her so much pain and trouble after any exertion, such as lifting furniture, that she applied for assistance. I cut down upon it, opened the sac, and found a piece of adherent omentum in it about the size of a large marble, which, along with the sac, was tied and cut off. I saw the patient the other day, three years after the operation. She has been at work as a housemaid, not wearing any truss, but simply taking care not to give herself any violent strains. There is not the slightest impulse on coughing, and she has been therefore perfectly cured. The usual history of such cases, when left alone, is that some day an extra effort is made, great shock and sickness follow, and the patient has to be cut to relieve a little knuckle of bowel often no bigger than a walnut, but acutely strangulated by the knife-like margin of Gimbernat's ligament.

Turning to inguinal herniæ, it will almost always be found that those which, being of a small or moderate size, cannot be supported by a truss, have at the bottom of this difficulty the fact that there is present a thin, flattened piece of adherent omentum, which is really quite irreducible, but which, when the bowel is put up, feels only like a very thick sac. Its presence, however, is most potent for evil, as it quite nullifies the retaining power of any truss. P. S., a strong, healthy sailor of 32, on admission to the infirmary told us that, about five years previously he first detected a small lump opposite the external inguinal ring, which used to disappear when he lay on his back. Very slowly it increased in size, until at last it no longer went back of its own accord, but had to be pushed back. For four years he had worn a truss, which seemed to act efficiently at first, but latterly was not of much use. A week before admission he had occasion to jump some feet. The hernia suddenly bolted down, and could not be got up for some hours until he had had morphia and a hot bath. He suffered such pain during these few hours, that he felt obliged to come and request that some permanent relief should be given him. I dissected out the sac, and on opening it found a piece of condensed omentum intimately adherent to the neck and the part immediately below. This was separated and removed, and the usual operation performed. He was seen the other day, about eighteen months after the operation. There was not the slightest impulse on coughing. He is in perfect comfort and at his work, and only wears a light truss for the sake of security. The piece of adherent omentum was the cause of the failure of the truss, and, as his experience of the week before admission clearly showed, kept him in constant danger of strangulation. Its removal has enabled the other steps of the radical cure to take due effect, and has practically put him in safety.

To condense matters, therefore, my experience would lead me to say that an operation should be recommended (*a*) in children only when it is impossible to get the parents to pay any attention to the complaint; in short, in the children of the poor and ignorant; (*b*), in small femoral herniæ composed of irreducible omentum, always; (*c*) in inguinal herniæ incapable of support by reason of the presence of adherent omentum, always; (*d*) in all herniæ whose great size renders support by a truss impossible. Ventral and omental ruptures come in the same category as (*c*) and (*d*).

(*To be continued.*)

ON SOME CASES OF AGUE IN LONDON.

By H. B. DONKIN, M.B, Oxon., F.R.C.P.

Physician to Westminster Hospital, and to East London Hospital for Children.

A VERY well-marked case of ague which lately came under my notice seems deserving of being shortly recorded, both from the fact that it was apparently a genuine specimen of London origin and that it recovered very rapidly under the use of arsenic after resisting quinine. A boy about five years old was admitted under me at the East London Hospital for Children, on January 17th of this year, suffering from "feverish attacks." The temperature for the first few days was taken only morning and evening, but on the 21st it was observed that the nature of the attacks of fever was characteristically aguish. The spleen was felt three inches below the ribs, and was hard. The liver also was felt slightly below the ribs. No other abnormal sign or symptom was present except some discharge from the ears. From the 21st to the 28th the boy had well-marked attacks twice daily at intervals of about twelve hours, there being a tendency for the alternate paroxysm to be of a milder character and sometimes unaccompanied by rigor. The high temperatures during the attack varied between 103·5° and 106·5° F. On the 28th quinine was given in four-grain doses every twelve hours, with no effect, the temperature on the 30th rising to 107°. On February 1st the quinine was given every six hours, after which date till the 7th the attacks took place about every twenty-four hours. The quinine was then given every four hours. There

were no decided rigors after this till the 12th February, though there were occasional slight rises of temperature. On the 12th the boy had a very decided rigor (temperature 105°) and another about twelve hours after. The boy felt quite well in every way between the attacks and was cheerful, but was occasionally sick after the quinine. On the 14th the quinine was given in five-grain doses. The attacks then became less regular, but took place at least once a day. An abscess appeared about this time on the buttock, which was opened on the 21st, and the quinine was discontinued. There was no marked change in the symptoms. On the 25th, Liq. Arsenicalis (one minim every two hours) was ordered. On the 26th he had a rigor (temperature 105°). But after this the temperature never rose considerably again. On the 28th it touched 100°, and then remained normal till the boy was discharged well on the 29th March, though he probably had an intervening attack of varicella. On the 3rd of March a careful examination showed all discoverable splenic enlargement to have disappeared. The arsenic was discontinued on the 6th March.

This is perhaps the best marked case of ague apparently originating in London that I have seen. The boy had never been away from Shadwell, where his parents had lived for long, near the river. I saw, however, several cases of undoubted ague occurring in those who had never, to their recollection, been in malarious districts, and who had always lived in London, while I was seeing out-patients at Westminster Hospital; about ten cases approximately, in a period of eight years. These cases, like that referred to above, seemed generally to improve best on arsenic. The affection is probably commoner than is generally believed in the riverside parts of London. Two cases have quite lately come under my notice in the S.W. district. One was that of a medical man whose observation of his own case may be thoroughly relied on. He had lived in Belgravia for several years, and had never had a similar attack. Suddenly he was taken with chilliness (not with defined rigors) and the sequent phenomena of ague. For five days these attacks recurred about the same hour, with much pain in head and neck, and some in limbs. No other symptoms. After 15 grains of quinine in three doses the symptoms permanently disappeared. The second case was a patient of the first. He was a gentleman who had lately removed from Hampshire (where he had always been in good health) to a well-drained house near Victoria Station. After about a week of daily well-marked attacks in January of this year, which were diagnosed as ague, he was given 10 grains of quinine, and 8 minims of Liq. Arsenicalis a day. He began to improve, and was well by the end of another week. At the end of April he had a similar attack with sore throat, but less severe, and improved rapidly on quinine. It may be mentioned here that on the fifth day of this second attack he had a general erythematous rash, followed a week later by desquamation. During the whole of this time he was in constant intercourse with a household containing eight or ten young people, all of whom subsequently remained perfectly healthy. A scarlatinoid rash in ague has been described, with cases, by Dr. Cheadle in a paper published in the *British Medical Journal* for April 13th, 1878, and containing also valuable remarks on the occurrence of ague in London. Dr. Cheadle's cases which showed this rash were all in children, and he further observes that he had not seen it in adults.

Lastly, I would mention that during the last few years I have known of two cases of severe ague in residents at Kew, one of whom only had had an attack some years previously, in India. Most of the cases that I have referred to above were of the quotidian form.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

COMPRESSION OF BRONCHUS BY A "CURED" AORTIC ANEURYSM—COLLAPSE OF LUNG—BRONCHIECTASIS LEADING TO ULCERATION OF PLEURA AND PECTORAL ABSCESS—DEATH.

(Under the care of Dr. SIDNEY COUPLAND, F.R.C.P., Physician to the Hospital.)

Thomas S., aged 39, a labouring man, was admitted into the Middlesex Hospital on May 19th, 1882, complaining of cough, dyspnœa, and giddiness. His previous health had been good, but for the past twelve months he had suffered from a cough, which he attributed to having received a severe wetting. He also suffered frequently from a pain in the chest, mostly in the morning, and he had been compelled to abandon work for three months past.

He was a sparely nourished large boned man, with an anxious expression; no cyanosis; no clubbing of extremities. Skin hot and dry; tongue furred. A notable difference was found on examination between the two sides of the chest. Although there was no appreciable flattening, the left side barely expanded at all on inspiration, was less resonant in front than the right side, and absolutely dull over the back. The right side was fully resonant, both front and back. No breath sounds were audible on auscultation over the left lung, except faint and distant breathing at the angle of the scapula, presenting a marked contrast with the right, where the breath sounds were harsh, accompanied by dry sonorous rhonchi and a few mucous *râles* in all parts. Vocal fremitus and resonance were absent on the left side; the former over the whole lung, the latter still slightly preserved at the base. The man's cough was troublesome and paroxysmal; expectoration copious, mucoid, and acerated.

The cardiac impulse was best perceived in fifth left interspace, two inches below and slightly to the inner side of nipple line; sounds faint; no bruit. Liver dulness extended from sixth rib to costal margin.

Ordered poultices, ammonia and ether mixture and benzoin inhalations.

At first there was considerable hectic, the temperature ranging between 100° and 103·5° to 104°, From the end of May onward the range was lower, but a very irregular pyrexia occurred throughout. The most troublesome symptom was the cough, which was accompanied by profuse bronchorrhœa, the quantity of sputum in the 24 hours averaging during the first four weeks between 20 and 30 ounces, and never during the whole course of the illness (except towards the close) falling below 14 ounces. The urine was scanty, high coloured, free from albumen. A few of the daily notes may be extracted from the long record.

May 31st.—Temperature 101°, pulse 120. Absolute dulness over left chest in front, from the third rib downwards, throughout axilla, except at apex, and over the whole of the left back. Hardly any movement of the left side, and almost entire abolition of vocal fremitus. In lower axilla, on deep inspiration, some distant bronchial breathing audible, but absolutely no breath-sound to be heard over the back. Heart's apex beat is feebly felt in normal situation; but there is also distinct epigastric pulsation. An ex-

ploratory puncture was made with a hypodermic syringe in the left axilla, seventh space, but only a drop or two of bloody fluid was withdrawn, microscopically consisting of blood corpuscles, many leucocytes, and some molecular *débris*. It was not thought advisable to aspirate.

He now began to suffer from profuse sweatings, which continued throughout, unchecked by remedies.

June 12th.—Temperature 100.2°. Is emaciating rapidly. Cough very troublesome and expectoration very profuse (30 ounces in 24 hours). No expansion of left chest. Complete dulness from clavicle to base with increased resistance. Amphoric breath-sound in subclavicular fossa; absence of breath-sound elsewhere in front. Dulness as before over whole of left back, but amphoric breathing now audible in interscapular region and below the angle of scapula, together with mucous *râles* and sonorous rhonchi. Right side of chest fully resonant, exaggerated breathing, with abundant *râles* and rhonchi.

June 15th.—Temperature 101°, pulse 144. Had an attack of dyspnœa for the first time since admission; a similar attack recurred twice on the next two days. The left leg and foot have became œdematous, the limb feeling hot and the skin reddened.

June 19th.—Cyanosed. Breathing laboured. Can only lie on left side with comfort. Still very marked œdema of left lower extremity extending to the hip.

June 22nd.—Right foot has became œdematous. The plugged left femoral vein can be distinctly felt.

July 3rd.—Temperature 98·2°, pulse 144. Cough still very troublesome, especially at night. The swelling of left thigh has disappeared, but the leg and foot are still œdematous. During the next three weeks very little variation is noted. He had become permanently cyanotic, and continued to have the profuse bronchorrhœa; but no appreciable change occurred in the physical signs.

August 5th.—Temperature 98·4°. The œdema is now limited to the left foot. No pulse can be detected to-day in the right radial or brachial artery, but there is no change in the appearance of the limb. Physical signs now include high pitched dulness over left front, absolute dulness over left back; amphoric breath-sound in region of angle of scapula. Right lung over resonant; harsh breathing; scanty *râles*. His condition was now very pitiable; he had become excessively emaciated and weak.

August 16th.—Complained of sharp shooting pain in left breast.

August 22nd.—A swelling the size of a pigeon's egg has appeared about an inch above the left nipple at the seat of pain. The swelling, which was first noticed two or three days ago, has rapidly increased within the past twelve hours. It is exquisitely tender, fluctuating, non pulsatile. At 4 p.m. Mr. Lyell punctured the swelling with a grooved needle, and some thick pus escaping he incised it with a bistoury. Pus mingled with bullæ of air escaped, and air passed in and out of the aperature with expiration and inspiration respectively. Some oiled lint was inserted into the wound. Immediate relief from pain was given by this incision.

August 24th.—There has been free discharge from the wound; the discharge and the sputum have become fetid.

August 26th.—Temperature 98·7°. Discharge very copious, and less fetid; it is ejected with every cough. Cavernous breathing now audible in the scapular region.

September 3rd.—Died.

The *post-mortem* examination was made on September 4th, by Mr. Sutton, who found the incision to be over the fourth costal cartilage on the left side, the cartilage itself being divided. The sinus led into the lung, which was firmly adherent to the chest wall. A large tumour bulged forward into the anterior and middle mediastina. It proved to be a sacculated aneurysm of the transverse aorta, involving the left bronchus and compressing the lung, which was firmly adherent to the sac. The sac was filled with laminated clot, and the left common carotid artery was occluded. The left lung, which was reduced to a mere stratum between the aneurysm and chest wall, was riddled with bronchiectases containing fetid fluid; and it was into one of the cavities thus resulting that the incision had been made. Fortunately it did not penetrate to the aneurysm. The right lung was emphysematous. The left vagus and its recurrent branch were destroyed by the aneurysm. The liver was fatty, spleen soft, kidneys normal.

Remarks.—Although as the case progressed the possibility of the symptoms being dependent upon an intra-thoracic tumour was kept in view, no suspicion of aneurysm was entertained during life, and yet the conditions found after death clear up many obscurities in the clinical features of the case. The aneurysm, which had undergone "spontaneous cure" had so compressed the bronchus as to render the lung quite useless and had thus given rise to the universal bronchiectasis. The physical signs, viz., dulness, absence of vocal fremitus posteriorly, suppressed breathing, except the area of amphoric breath-sound at the scapular angle, and the immobility of the left side, are all explained by the condition to which the lung was reduced, and the profuse bronchorrhœa must doubtless be attributed to the same cause. Had a laryngoscopic examination been made, it is highly probable that much light would have been thrown on the case, for owing to its position the aneurysm had exerted no pressure upon veins, and owing to its consolidation positive aneurysmal signs were also wanting; but, as the *post-mortem* showed, it had completely destroyed the recurrent and vagus nerves. In spite of this, dyspnœa was never a prominent symptom, and the voice was not obviously altered. The connection of the abscess in the thoracic wall with a pulmonary cavity became evident as soon as the former was incised.

Medical Times and Gazette.

SATURDAY, JULY 5, 1884.

Our Paris correspondent writes:—The cholera still continues to be the topic of the day, and the Academy of Medicine was thronged yesterday to such a degree, that members were obliged to enter by a side-door, it being impossible to pierce the crowd. The building, which is altogether insufficient for its purpose, and unworthy of the illustrious Society which meets there, was full to overflowing, and contained several hundred persons. The fact that Drs. Brouardel and Proust had returned from the South, and were about to communicate their report to the Academy, had attracted this extraordinary rush. A slight skirmish had preceded the battle. Dr. Brouardel, having the day before communicated his views to the Board of Health, was opposed by Dr. Fauvel, who clings to his views with characteristic obstinacy. The Academy presented something of the appearance of the Chamber of Deputies on field-days; there is, in fact, something almost political in the functions of that learned body,

which is constantly consulted by the Government on subjects of public importance—such, for instance, as the question of trichinosis, which nearly created a commercial war between France and the United States.

Dr. Brouardel stated, amidst universal attention, that when he started with Dr. Proust for Toulon, with ministerial instructions, he felt inclined at first to consider the epidemic as one of cholera nostras; but that, after a careful investigation of the facts, he and Dr. Proust were obliged to alter their opinion, and recognise the existence of real Asiatic cholera. The first case which occurred at Toulon began on June 14th, the second on June 15th, both on board the *Montebello*, a ship which has been lying in port for the last fifteen months. The first patient died at the end of the week, the second expired in twenty-four hours; both cases were considered as cholera nostras. On the 22nd, a boy at the grammar school was taken with cholera and died in six hours. The *Lycée* was immediately evacuated, and the boys dispersed. On the 23rd there were nine deaths from cholera, and since that time every day has been marked by a small number of fatal cases. The existence of cholera was therefore evident; but the question at issue was whether it had penetrated from abroad, like Asiatic cholera, or had spontaneously arisen in the port. All the investigations of the Commission remained fruitless, and it was impossible to discover the fissure through which the disease had penetrated into a place protected by an intricate system of regulations. The transport ship, *La Sarthe*, had been peculiarly incriminated; but the opinion of the Commissioners is, that no blame can attach to that unfortunate craft.

Such was the only reason which prevented the Commissioners from first recognising the existence of Asiatic cholera, which, according to the French notions, never breaks out spontaneously in the ports of Western Europe, and invariably comes from the East. But a few days later one of the boys dismissed from the school at Toulon, went to Marseilles, and died there of cholera. Since then, six other cases have occurred in the same city. At the same time, the transport ship, the *Shamrock*, was on the point of starting for Tonkin with 1,100 men on board, when a case of diarrhœa occurred in a sailor who rapidly recovered. From motives of prudence, Dr. Brouardel ordered the ship to Hyères, where first one case of cholera occurred, then a second one, and quite lately, a third. The troops were immediately disembarked, and the whole cargo laid out for disinfection. These facts seemed unmistakably to prove that Asiatic cholera did exist at Toulon. One objection still remained—there had been no cases spontaneously developed within hospital wards. This last impediment was overthrown by a letter from Dr. Cunéo, which states that two *interior* cases have occurred, the first at the *Hôpital Principal*, the second at the *Hôpital Saint Mandrier*. And, lastly, two cases of algid cholera have occurred at La Valette, a healthy village, four miles distant from Toulon, in which a labourer, coming from that city, had died of cholera a few days before. Now, as the two above-mentioned inhabitants of La Valette, had not gone for several months to town, they evidently had contracted the disease from the first patient who died in that locality. Dr. Brouardel concluded his speech by declaring that we evidently stand in presence of an epidemic of Asiatic cholera, although we cannot discover the loophole by which it has gained an entrance.

Dr. Fauvel replied in a set speech that without doubting the sincerity of his opponents, he persisted in believing that the epidemics, both of Toulon and Marseilles, were entirely due to local causes, and would die out without spreading farther. He insisted on the fact that the death-rate from cholera remained extremely low. In conclusion, he blamed the Commissioners for spreading alarms which had a disastrous effect upon French trade. A murmur of universal disapprobation met this last remark. But Dr. Fauvel, who is universally considered as a most upright, most enlightened, and most honourable man of science, is, unfortunately, afflicted with the same infirmity as the ancient Assyrian kings whose word could never be recalled. No culprit in those times could hope for a reprieve when his sentence had been followed by the awful words "The king hath spoken." Dr. Fauvel should, therefore, be extremely cautious not to let the sacred utterances drop too soon from his consecrated lips. But in the present case his usual prudence seems to have been at fault. He distinctly stated last week, at the Academy, that the cholera at Toulon was not epidemic but sporadic; and sporadic it must therefore remain, all logic to the contrary notwithstanding. Dr. Fauvel laid himself open to the sharp rejoinder of M. Pasteur, who said in substance that the only serious argument brought forward by Dr. Fauvel was the low rate of mortality in the present epidemic. But in the celebrated and disastrous cholera of 1865, in that very same city of Toulon, the death-rate was very low during the first fortnight, and then rose to an alarming height. The conclusions of Dr. Fauvel were therefore null and void.

It seems evident, concludes our Paris correspondent, that the disease, the very name of which terrifies Europe, has distinctly broken out in the South of France. Whether it will die out there, or spread farther, is a question at issue; but if ever it arrives at Paris, you may be perfectly sure that it will cross the Channel and reach London, in the shape of some unavoidable carpet-bagger, whom no quarantine will stop in his progress. In the present state of communications in Europe, it seems impossible that cholera, if ever it breaks out in some central and highly-frequented spot, should not spread everywhere, with the exception perhaps of some favoured localities. The best remedies against that inevitable evil are sanitary precautions and immediate medical treatment. The Municipality of Paris have already taken proper measures, and have prepared special hospitals and special wards for the reception of any cases that may occur. The Festival of July 14th will be put off at Marseilles and Toulon. It would be advisable to adopt similar measures at Paris. An old American friend of mine

told me, that in former days, when the yellow fever annually visited New Orleans, the first cases invariably occurred on the 5th July. A curious coincidence, which might perhaps be explained by the copious libations attending the anniversary of the Declaration of Independence on the 4th July. It is evident that, in presence of epidemic diseases, the celebration of national festivals is not unattended with danger. Our Republican Government would therefore act wisely in postponing the ceremony to a more fitting time.

In reply to questions put to the President of the Local Government Board, as to what steps are being taken to protect the country against the introduction of cholera, it has been pointed out that the subject was very carefully considered last year, when an outbreak of cholera occurred in Egypt. Revised "Cholera Regulations" were then drawn up and issued, and are still in force. Under these regulations an officer of the Customs may detain any vessel on its arrival in English waters if he has reason to suspect that it is infected with cholera; and having done that, he must give notice of the detention of the vessel to the sanitary authorities, who must cause their Medical Officer of Health, or some other medical man, to visit and examine the vessel. Or a Medical Officer of Health may visit and examine any vessel that he may suspect of being infected with cholera, or of having come from some infected port. When a medical officer has certified that a ship is infected, no one can leave it without the medical officer's permit; and should any person be found to have cholera, he must be sent into hospital. Doubtful cases may be detained on board the ship or in hospital, until the nature of their illness has been clearly made out; and provision is made for the disinfection of the vessel, and of all infected clothing, bedding, &c. Sanitary authorities have been appointed at our ports, and it is the duty of their sanitary officers to deal, in accordance with the prescribed regulations, with all infected ships and all cases of infectious disease coming into port. These regulations, which are the outcome of our present knowledge and experience of the modes by which the spread of cholera can most certainly be prevented, are now in force, and will remain in force not for any definite period only, but until they are repealed.

The adjourned discussion on the second reading of the Medical Bill was resumed on Thursday last week by Dr. Farquharson, who was willing to accept the measure, because it would put an end to the agitation and turmoil that have for so long beset the profession. But he felt, he said, but little enthusiasm for it. If passed in its present form it would, he thought, injure all and probably ruin some of the Corporations in England; while in Scotland it was feared it would lower the standard of examination. Mr. Peddie also contended that it would have a very injurious effect on the Corporations. It was further feared that the Crown nominees on the Medical Council would be Englishmen residing in or near London, and that therefore medical matters would be ruled more in the interest of England than of Ireland and Scotland. The Extra-Mural School in Edinburgh would also, he thought, be very injuriously affected by the measure, and that would be a great calamity. Dr. Lyons spoke at some length to the same effect. He thought the measure might lead to the extinction of the Medical Corporations, even in London, and still more surely in other parts of the country; and that he thought would be a very serious matter, and he should consider it his duty to see that it was fully considered in Committee. He greatly regretted the omission of the two Corporations of Apothecaries from the Bill. He trusted the House of Commons would restore them to the position to which they were entitled, and he would himself do his utmost to amend the Bill in that respect. Mr. Buchanan thought the Bill ought not to be pressed on the House when there were other measures of much greater importance requiring consideration. But it appeared to him that the measure would meet with little opposition if Government would accept the amendment suggested by Sir Lyon Playfair. Some other members spoke briefly, and the Bill was read a second time, the hostile criticism of it having come entirely from Scotland and Ireland.

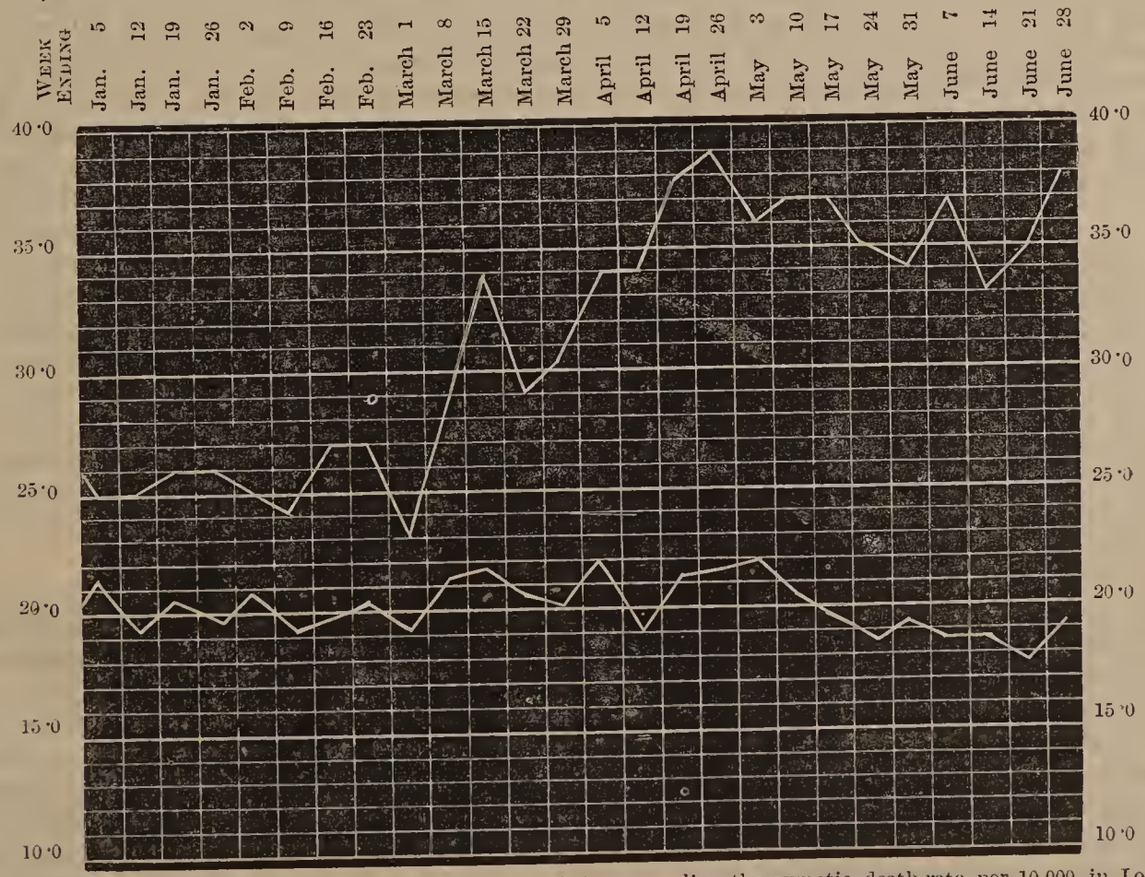
Monday this week was named for taking the Committee stage of the measure; but when, owing to the collapse of the Vote of Censure debate, motion was made to go into Committee on the Bill, it was obstinately opposed, on the ground that no one expected it could be reached, and that therefore many of the Members interested in it were absent. Mr. Mundella assured the House that he wished only to go into Committee *pro formâ*, and that Members should have ample opportunities for putting down their amendments; but the Irish Members rushed into the fray, and it was not till after very prolonged disputing, and numerous divisions, that the House was permitted to go into Committee; and that being done, progress was immediately reported.

An important Conference of Delegates from the Irish Corporations, and from certain of the Scottish Corporations and Universities, and the Royal College of Surgeons of England, took place in London yesterday (Thursday). The Conference was attended by Mr. Marshall, Mr. Cooper Forster, and Mr. Trimmer, representing the College of Surgeons; Dr. William Moore, President of the King and Queen's College of Physicians, and Dr. J. W. Moore, Registrar of that College Dr. Edward H. Bennett, President of the Royal College of Surgeons in Ireland, and Dr. Jacob, Secretary of Council, together with Drs. Kidd and Barton, Professor Struthers, of Aberdeen, and Dr. McVail, of Glasgow. The Conference unanimously agreed to support Sir Lyon Playfair's amendment as to the appointment of Coadjutor Examiners at Final Examinations to be held by the Licensing Bodies recognised by the Bill, in lieu of the Final Examination of the Medical Boards. It was further agreed to recommend that the Irish Medical Board should be formed of an equal number of representatives from each of the four Medical Authorities recognised by the Bill, and that the representation of the Scottish Corporations on the

Board for Scotland should be increased from three to five members. It was also arranged that amendments should be sought for, giving to the Irish and Scottish Divisional Boards three representatives each on the Medical Council. To make room for these two new members it is suggested that there should be only four Crown nominees instead of six. By a majority of votes it was agreed that the direct representatives in the Medical Council should be *ipso facto* members of the respective Medical Boards. A Scottish amendment, that all mention of undergraduates should be omitted from Clause 36, was adopted, as was also an amendment of the Irish College of Surgeons, providing for an assessment out of the Medical Council Fund for the maintenance of libraries and museums and the public purposes of the Corporations. Lastly, an important proposal of the Irish College of Surgeons was adopted, to the effect that students at the time of their matriculation should associate themselves with a medical authority recognised by the Bill, passing sessional examinations held by that body, or some kindred University or College.

The number of deaths registered in London last week was one above the average, and the death-rate rose to 19·1, having been 17·8 in the preceding week. The deaths from zymotic diseases, 292 in number, exceeded the average by 30, and the 218 deaths from respiratory diseases exceeded the average by 4. The most satisfactory features of the return are the fall in the number of deaths from small-pox, and the comparatively low mortality from diarrhœal disorders. In the preceding return 59 small-pox deaths were recorded, and the cases in hospital were stated to number 1,316. Last week the deaths from small-pox only numbered 49, and the cases under treatment had fallen to 1,290. During the week 160 new cases, however, were admitted, so that the epidemic at present must be regarded as scotched rather than killed. Measles and whooping-cough still continue very fatal in spite of the warm weather. Last week between them they killed 158 persons, 58 of whom were under one year old, and 93 between the ages of one and five.

The present weekly return ends the half-year, and we append a graphic representation of the health of the metropolis during that period. It is unnecessary to say much in explanation of it. For the first two months of the year, both the general death-rate and the zymotic death-rate were remarkably low for the time of year, but the first three days in March were cold, and the result was at once seen in a marked rise in the deaths from respiratory diseases, and from those zymotic diseases which mostly occur through the respiratory organs. The fatal prevalence of measles and whooping-cough, once started has persisted up to the present. In the first quarter of the year there were respectively 549 and 1,104 deaths from these diseases in London; in the second quarter the numbers were 1,024 and 1,296. The total number of deaths in London from zymotic disease was in the first quarter 2,699, in the second quarter 3,687, or nearly 1,000 more, just two-thirds of which is to be accounted for by the greater fatality of the two diseases we have mentioned. The general death-rate of the first quarter was 20·4 per 1,000; that of the second quarter 19·9. The former is comparatively much the more favourable return; for while the death-rate of no recent first quarter had been less than 22·1, the rate for the second quarter of last year was 19·5, or 0·4 less than the rate



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the first half of the present year.

for the second quarter of this year. The most favourable feature of the health of the past half-year is, that there have been no upward leaps of the general death-rate,—such as have been not uncommon in the corresponding portions of preceding years. The health of a community ought above all things to be equable, and the line of its death-rate should be like an undulating plain—without peaks or abysses.

Two Conferences were held at the International Health Exhibition on Thursday and Friday in last week, under the auspices of the Social Science Association. Mr. F. S. Powell read a paper dealing with the indications for further sanitary legislation in extra-metropolitan England. He showed the necessity for consolidating certain local Acts, and applying them to the country generally, and advocated the enactment of further sanitary reforms, including a measure providing for the notification of infectious diseases. Mr. H. Collins, who dealt with the measures essential for the maintenance of healthy dwellings, took a somewhat different line, and deprecated over-legislation. The thing to aim at was, he thought, improved administration, including uniformity both in area and mode of action. The papers were followed by discussion. On Friday Dr. J. H. Bridges read a paper, entitled, "What, if any, restrictions in the interests of health should be enforced in connection with the employment of girls and women in workshops and factories?" He recommended that the employment of women for six weeks after childbirth should be prohibited, but thought the extension of the Workshop Act to domestic industries impracticable, the machinery of inspection being already applied as far as was safe, possible, or expedient. The remedy for undoubted evils must be sought in other directions, viz., first, an extension of women's unions, and, secondly, an improved state of public opinion, leading every one to refrain from purchasing articles for which there was reason to believe the maker had not been fairly paid. After the Conference, Surgeon Major Evatt gave a lecture on "Ambulance Organisation in War and Peace."

We are glad to see that the Council of the Royal College of Surgeons have been induced by the Poor-Law Medical Officers' Association to make a strong representation to the President of the Local Government Board with regard to the grievances of the Poor-Law Medical Officers. Their letter, ratified at the last Council Meeting, points out that the Poor-Law Medical Officers' Superannuation Act of 1870 recognised the expediency of making provision for superannuation allowance to those medical officers who had faithfully and for long periods discharged their duty to the State; but the Act was permissive, and Boards of Guardians were allowed to exercise the power thus given *at their discretion*. Thus it arose, as the Council have been credibly informed, that "aged and indigent members of the profession, after holding office for periods varying from twenty to forty years, have been refused by the Board which they have faithfully served any superannuation allowance whatever. In some instances the refusal has been accompanied by an offer of the workhouse or out-door relief." Hence the Council most earnestly press the consideration of the subject on the attention of the Local Government Board, and solicit its aid in remedying an obvious and serious hardship to certain members of the medical profession. They urge the Local Government Board to make full *enquiry* into the particulars of all cases in which refusals to grant superannuation allowances to retired medical officers have taken place; and also to consider whether, by the issue of a *memorandum*, founded on the results of such enquiry, some influence could be brought to bear upon guardians or other like authorities, to guide them in the just and expedient exercise of their function of granting these allowances. In the event of this end being unattainable except by more stringent means or *compulsory legislation* the Council would beg the Local Government Board to intervene, so far as they can, to promote by such means as they may think fit the placing of Poor-Law Medical Officers, on their retirement or superannuation after efficient and honourable service, under such *conditions of security* in respect to retiring allowances as now prevail in regard to public servants in the various Government departments. The Council, we are informed, are prepared to petition the House of Commons if their representations to Sir Charles Dilke are fruitless; but it is to be hoped that they will be saved from the necessity of such a step. The Government in other departments has always recognised the granting of pensions as one of the chief means of securing faithful service from its officials.

The Health Report on the Borough of Birmingham for the year 1883, compiled by the Medical Officer, Dr. Alfred Hill, is, as usual, full of valuable information connected with the sanitary history of the past year. Not the least interesting feature of this Report is a carefully arranged disease map, showing the distribution over the town of the deaths from the three diseases—measles, scarlet fever, and typhoid. Notwithstanding the unwelcome presence of both small-pox and scarlet fever during the year under notice, Dr. Hill records that, like each of the four preceding, it is one of a series which claim, compared with their immediate predecessors, a large saving of life. This, he thinks, points to the beneficial results which accrue from the vigorous prosecution of sanitary measures; but it should be borne in mind, he adds, that the recent cool summers and mild winters have exerted a highly favourable influence on the public health, and have caused the improvement recorded in the health of Birmingham in recent years to be greater than it otherwise would have been.

Spennymoor, a small village in the neighbourhood of the Whitworth Collieries, in Durham, has lately succeeded in attracting the attention of the Local Government Board to its misdeeds in matters sanitary and otherwise, and a report from Dr. Parsons is the result. One point by which Spennymoor is distinguished from most urban districts is by its high death-rate, which is mainly due to the excessive mortality among children. The proportion of children who die in their first year

is a third greater in Spennymoor than in England and Wales. Amongst the causes of this high death-rate in children, the following are given, viz. :—the feeding of infants on artificial food from their birth ; the gossiping and drunken habits of the mothers, who spend a large portion of their time in each other's houses or in the public-houses, the children being meanwhile left to the tender mercies of perhaps a girl of eleven or twelve, or else left to play about on the doorstep by themselves. Many of the women too are in the habit of taking opium, which cannot but be injurious to the infants at the breast. The last cause suggested is the most serious of all ; it is that the burial club system is responsible for many of the deaths. The only way to meet this, as it seems to us, is that in the event of the death of a child insured in one of these clubs, the doctor's bill and the funeral expenses should be paid by the club, but the parents should not be allowed to receive any money directly in respect of such death.

Our Edinburgh correspondent writes :—The inaugural meeting of a "White Cross" Society, connected with the University and Extra-Mural Medical Schools, was held on Friday the 27th ultimo, in the surgery class-room, Professor Crum-Brown in the chair. This society is founded on the lines laid down by Miss Ellice Hopkins, in her recent lecturing tour here ; and it may be commended as a well meant, though as yet untried mode of attacking the "social evil." It can scarcely be said that the attack has been made any less easy by the repressive measures adopted by the municipal authorities here during the past five years. Driven from their former haunts, the "unfortunates" have been scattered here and there over the city, and in many cases the working man, tempted by the high rent offered for his spare apartment, has given shelter to those whose coming and going among his children can only be followed by peril and disaster to them.

The success of the Edinburgh Students' Union becomes daily more secure. The idea was mooted shortly before the Tercentenary Celebration, and was actively taken up by the Students' Representative Council. Since then a considerable portion of the necessary capital has been subscribed, and a general appeal for funds is about to be made, bearing the imprimatur of the Chancellor, and other dignitaries of the University. The scheme was at first regarded somewhat askance by those in high places, but since then a new view has been taken of it by some of them, and the present appeal is the result.

The Final Oral Examinations at Edinburgh are in full progress. The number of candidates is greater than ever, and judging from the lists, the rejections are bearing a more healthy proportion to the passes than they were accustomed to do formerly. The papers on Medicine, Surgery, and Medical Jurisprudence represented the demands of a high standard ; but that on Midwifery might with every advantage have been somewhat more ambitious. That men from whom is demanded a six-months' attendance on Midwifery should be examined by a paper containing three questions, two of which might quite reasonably be asked of nurses after a few months' training in a lying-in hospital, seems rather anomalous.

The Edinburgh University Assistants' Club, a body comprising past and present assistants to the Professors in the University, has forwarded a memorial to the Lord Advocate, urging their claims to some share of the attention of the Commissioners under the Universities of Scotland Bill, at present before Parliament. The chief grounds of complaint are the unsatisfactory status they at present possess in the University, together with the inadequate amount and irregular source of their incomes. Taking everything into account it cannot be said that the request of the club is an unreasonable one. When one considers that in more than one of the important chairs in the Medical Faculty the chief part of the actual teaching is undertaken by the assistants, it can hardly be said that the pittance which they receive by way of salary is a fair return for the work they do. While they perform the greater amount of the real teaching, in the Medical Faculty at any rate, they are rewarded by a salary which would be unhesitatingly rejected if offered to an assistant in a colliery practice. The memorialists deprecate the suggestion that the salaries of the assistants should be paid by the professors, and so be regarded in the light of a deduction from the incomes of these starved beneficiaries. Yet it seems somewhat anomalous that the unexampled prosperity of the University during recent years should confer no benefit on anyone save the occupants of the chairs. It cannot be said that the teaching staff has kept pace with the increase in the number of students : there can be no doubt that the staff of some of the chairs is miserably under-manned, and it seems at least sound economy that a portion of the large sums paid in the shape of fees should go to the remuneration of those who do so much of the real teaching. Perhaps a judicious depletion of the plethoric incomes of some of the holders of some of the chairs might tend greatly to the efficiency of the latter. It is well-known that in one of the most important chairs of the Medical Faculty, the time of one of the chief demonstrators is for a large part of each day during the early weeks of the session occupied in collecting the fees and making up the class-lists of the professor, and this, too, at a time when the organisation of such a class demands more than all the efforts of a staff notoriously inadequate as regards numbers. It is to be hoped that the Lord Advocate will see fit to give the prayer of the memorial his best consideration.

A very interesting event took place in Aberdeen last Saturday, when Dr. Manson Banff and Dr. Davidson Wartle were entertained at dinner by their medical brethren on the occasion of their completion of 50 years' practice. There was a large gathering of the profession, showing how widely known, and in what high esteem both men are held in the North of Scotland. During the afternoon Dr. Manson and Dr. Davidson were each presented with congratulatory addresses.

Dr. Francis Richard Cruise, Vice-President of the King and Queen's College of Physicians, and Consulting Physician to the Mater Misericordiæ Hospital, Dublin, has been appointed Physician in Ordinary to the Lord Lieutenant of Ireland, in room of Dr. Thomas Nedley, now Surgeon to His Excellency's Household.

At their meeting on Saturday, June 28, the Provost and Senior Fellows of Trinity College, Dublin, appointed Dr. Charles Bent Ball, Surgeon to Sir Patrick Dun's Hospital, as Examiner and Lecturer in Operative Surgery, instead of Dr. Richard L. Butcher, resigned.

We are asked to state that the Committee appointed by the Clinical Society of London to enquire into the results of the treatment of spina bifida by the injection of iodo-glycerine solution are continuing their work. The Committee will be glad to receive for examination and dissection any specimens of the deformity, especially early fœtuses. Clinical histories, with careful description of the tumour previous to injection, and subsequently, will also be gladly acknowledged. Communications may be addressed to the Honorary Secretary of the Committee, Mr. Parker, 8, Old Cavendish Street, W.

The celebrated alienist, Moreau de Tours, died last Wednesday, at the age of 80. He was principally known by his psychological remarks on the effects of haschisch, and by his great work entitled *La Psychologie Morbide*, the ground-work of which is the celebrated paradox, which gave great offence at the time, "*Le Génie est une névrose*"

The Cavendish Lecture will be delivered by Mr. Timothy Holmes on Friday evening the 11th instant, at 8 p.m., before the West London Medico-Chirurgical Society at the West London Hospital. Mr. Holmes has chosen as his subject "The Medical Treatment of the Poor of London."

The annual election of Fellows into the Council of the Royal College of Surgeons took place on Thursday last. The vacancies arose from the resignations of Sir Erasmus Wilson, Mr. Holden, Mr. Gay, Dr. Humphry, and Mr. Thomas Smith. Of these Mr. Smith alone sought re-election. Owing to the activity which Fellows and Members have been shewing with regard to College management, the polling was looked forward to with some interest. Nevertheless, only about 277 voters were present, and of these five were disqualified by reason of irregularity in filling up the voting papers. The following is the list of candidates, together with the number of votes recorded for each :—

Mr. Lawson	158,	including	2	plumpers.
Mr. Durham	154	„	8	„
Mr. T. Smith	152	„	6	„
Mr. Berkeley Hill	127	„	3	„
Mr. Allingham	108	„	8	„
Mr. Pemberton	103	„	6	„
Mr. Gant	77	„	2	„
Mr. Cowell	55	„	5	„
Mr. Barwell	51	„	1	„

The five first-named were accordingly elected. It is a matter for regret that Mr. Pemberton, the only representative of provincial Fellows, was not elected. We fear that no alteration of the by-laws will secure adequate representation for them, unless they take some little trouble in the matter themselves. In the evening the usual dinner took place at the Albion Tavern, Mr. Lund (of Manchester) in the chair.

On Thursday afternoon the President of the Ophthalmological Society entertained a large number of the members at luncheon, and subsequently there was a meeting of the Society at Chandos Street, when papers were communicated by Mr. Nettleship, Mr. Lawford, Mr. Adams Frost, and the President. We are obliged to defer our report of the meeting, and any comments on the papers until next week.

THE MEDICAL TIMES.

With the present number of the *Medical Times*, which will be sent to every practitioner whose name is in the "Medical Directory," we begin the second volume of our new series. We appeal with confidence for the support and sympathy of the profession. The experience of the last six months has proved that there is ample scope for a journal conducted on the lines on which the *Medical Times* is conducted, and we are assured on all sides that there are many readers who take the warmest interest in its progress. It is unnecessary to dwell on the principles which actuate the management of the journal. It is sufficient to say that it claims and strives to represent—with honesty, independence, and single-mindedness—the best thought of the profession. It tries to deal faithfully with the many difficult problems that are presented to it, without reference to personal interests or professional prejudice. It does not expect in all cases to carry the whole profession with it, or to uniformly secure the approval of its contemporaries. But it does strive to write so that it shall never have cause to regret what it has written. During the past six months every effort has been made to improve the arrangements for securing fresh and accurate intelligence of the progress of medicine in different parts of the world. The number of correspondents in the chief cities has been largely increased, and care has been taken that the substance of all important articles published in foreign medical journals shall be presented to the reader with as little delay as possible. In the department of clinical work, the aim has been to secure careful records of representative and interesting cases, and, in the series of Clinical Papers, to deal with important problems in such a way as to stimulate thought. The importance of making every part of the journal equally interesting and readable has been and will be fully recognised, and the efforts of the staff will be sufficiently repaid if what they have thought worth writing is thought by others worth reading.

THE MEDICAL ACT AMENDMENT BILL.

The adjourned debate on the second reading of the Medical Bill, if it can be called a debate, was resumed on Thursday se'nnight, and was very soon finished, and the bill read the second time. No serious opposition appeared to be offered to the measure, and the discussion was rather a friendly conversation, interspersed with a few criticisms, than a debate. Sir Lyon Playfair, speaking as a representative of Scottish Universities, objected that if the final examinations are to be conducted by the new Medical Boards, the examining bodies in the United Kingdom will be increased instead of being decreased in number; and he suggested that the Boards might be authorised to send as many assessors as they may think fit to co-operate in the final examinations of the Universities and of the Corporations that may be willing to receive them. Should those bodies not be willing to admit assessors from the Boards, then indeed the examinations must be conducted by examiners appointed by the Boards, but he thought he could answer for the willingness of the University of Edinburgh and the other medical authorities in Scotland to accept the presence and co-operation of assessors from the divisional Board, rather than that candidates shall be burdened with the additional expense and harassment of a double examination. It is difficult to believe that Sir Lyon Playfair can intend to press such a change in the character of the Bill as he has thus suggested, or that Government can entertain it for a moment. If the system of assessorship that he proposes is yielded as regards the final examination of any licensing body in the United Kingdom, it must be permissible also in respect of all the licensing bodies in the three divisions of the kingdom; and thus one of the objects which the Bill is most especially intended to aim at—the attainment of an approximation to uniformity of standard for the final examinations—would be made more difficult than ever, if not simply impossible. We do not believe that the presence and co-operation of a few assessors from a Medical Board would be able to influence in any appreciable degree the results of the final examinations of a licensing body; and moreover, the system sketched by Sir Lyon Playfair—we do not find that he has distinctly formulated it yet as an amendment—would be impracticably cumbersome, complex, and expensive.

Colonel King-Harman has given notice of an amendment, to give the Corporations in Ireland equality of representation on the Medical Board with the Irish Universities. At present each of those Universities is granted four representatives, while the Corporations are given only three each; and the proposed amendment will take away one representative from each of the Universities. This amendment is supported and urged by the King and Queen's College of Physicians; and there is much to be said in its favour. It seems absurd to give the Royal University, which is only an examining body of mushroom growth, equal representative power with the University of Dublin. The King and Queen's College is a teaching as well as an examining body, and Government has already made so many changes in the constitution of the Irish Board, that they may very well gracefully yield the disputed matter, and make one change more. But the next amendment formulated by the King and Queen's College is a much more serious one. They propose to enact that the Medical Council instead of the Medical Boards shall frame the schemes for the final examinations, and for securing equality of curriculum, standards of examinations and fees; and they propose a very lengthy new clause in the Bill and various amendments for effecting this change. They urge that the principle of entrusting the duty of framing rules and schemes for examination, &c., to the Medical Council alone was recognised in the Medical Act Amendment Bills of 1870, 1878, 1879, and 1880, and that the Medical Bill of 1878 was specially amended in that direction. But a good deal has taken place since then; the Royal Commission on Medical Bills has, for instance, been appointed, and strongly recommended the establishment of the Medical Boards; and it can hardly be seriously expected that Government will consent to accept any part of this amendment. The College further propose to add to Clause 36 of the Bill words providing for the application of a portion of the surplus of the Medical Council fund to the payment of "expenses incurred for public purposes by any Medical Corporation of the United Kingdom in connection with the examinations." This is one of the minor details of the Bill with respect to which Government may be inclined to accept amendments, in order to conciliate opposition. Finally, the College strongly object to the privileges that the Bill grants with regard to the fees to be charged by each Medical Board for its final examination, to university graduates, and undergraduates; but they are willing that the proposed privileges shall be accorded to graduates in Arts, and to undergraduates in Arts, qualified to obtain degrees in that faculty. This amendment again is one that, if it is pressed, the Government may fairly be induced to accept. Deputations from Scotland and from Ireland have during the week had interviews, we believe, with Mr. Mundella, to press upon him the various amendments that they desire to make in the Bill; and we have elsewhere noticed the important conference held on Thursday by representatives of English, Scottish, and Irish licensing bodies as to what changes in the measure shall be unitedly urged. From these facts, and the numerous formulated amendments we have noticed, it is clear that the opposition to the Bill as it now stands will be much more serious than was shadowed forth during the discussion on the second reading. But though it may be expected that Mr. Mundella will be as generous and conciliatory to his opponents as possible, in order to aid and speed the passage of the Bill, it is, we take it, quite certain that he will not yield to any alteration of the essential provisions of the measure.

CHOLERA PROSPECTS.

A cholera scare recurs with such regularity every midsummer, that most sensible persons have ceased to attach much importance to these cries of alarm; but we must confess that this time it does not appear to be so devoid of foundation as on many previous occasions. Of course, all depends on whether the present out-

break at Toulon is cholera or not. We object to the word Asiatic, since it begs the question of its origin by assuming that it cannot arise *de novo* elsewhere, which we are by no means prepared to maintain, although we hold it to be a specific disease as distinct from diarrhœa in general, as enteric fever is, and although its spontaneous origin in Europe has not as yet been proved, while its importation, directly or indirectly, from Asia has been again and again. It may, and so may enteric fever, be remotely evolved from the same elements as the diarrhœas, but while the latter are sure to make their appearance wherever sewage-sodden soil, and tainted water are brought into a state of active putrefaction by such a high temperature as we are now enduring, or enjoying, they are not transportable to places where such conditions do not exist. Whereas cholera certainly is, although it will never take a firm hold of a community whose surroundings, especially the water supply, are of the best. Herein lies the difference, herein the danger and the means of escape.

We do not know anything personally of the sanitary condition of Toulon; but if all we read and all we hear is true, there can be no doubt that all the conditions exist there for the production of an epidemic of virulent septic, or, to revive Murchison's useful word, pythogenic diarrhœa. Such epidemics may follow in other towns under like conditions but otherwise quite independently of the original outbreak: thus it is by no means certain that the cases at Marseilles had anything to do with those at Toulon. But if it be the true cholera, it will slip through sanitary cordons, evade the paper quarantines of Italy and Spain, and make its appearance in those towns in most frequent and direct communication with that where it has first effected a landing. If the ground be saturated with organic matter, and swarming with bacteria of various kinds, the water contaminated with sewage, and the air of the streets stagnant and tainted, it will find a rich soil and carry off its victims by hundreds; but if we set our houses and towns in order, jealously watching over every conceivable pollution, our positions may be attacked, but the enemy will either fail to effect a lodgment even for a day, or we shall be able to repulse him with but trifling losses. At the same time we trust that strict supervision will be exercised over all suspicious shipping, for though sanitary cordons on land are utterly futile and quarantine by sea not always effective, our insular position and distance by sea from the usual points of departure of cholera, the Mediterranean and Baltic ports, give us no small advantage, and render "blockade running" by infected craft less easy than it is among narrow seas and adjacent islands.

THE MEDICAL BILL.—A petition from the Foreign Graduates' Association of Great Britain, signed by Dr. H. J. Hardwicke, president, has been presented to the House of Commons by the Right Hon. A. J. Mundella, in favour of admitting to the register all foreign degrees obtained after examination and before the passing of the new Medical Bill by duly registered practitioners, and also protesting against any attempt being made to modify Clause 69 in a sense prejudicial to the holders of foreign degrees.

SUMMER'S MIGRANTS.

THE placarding of tourist arrangements at the railway stations and a perceptible flavour of *Bradshaw* in the world's daily conversation, advertisements of yachting costumes, and of guide-books to all places under the meridian or the midnight sun, warn us that the period of the wholesale exodus from home and the replenishment of sea-side lodgings, of fresh trials for paterfamilias and of the yearly triumph of the landlady is upon us It may therefore be pertinent to glance at the *raison d'être* of this annual ebb and flow of holiday taking humanity, and to consider how far the means commonly adopted are calculated to attain the end which is ostensibly in view.

Man is, by inheritance probably, a migratory animal. If we accept the suggestion of Sir James Paget that his love of field sports and other forms of out-door recreation is a survival of the habits of savage ancestors whose life was necessarily mainly a hunting one, we may also be allowed to trace the periodical yearning for change of air and of locality to which few are insensible, and which in spring and summer affects some people with a passion almost irresistible, to the fact that our forefathers once lived for generations under conditions which compelled them from time to time to shift their homes in accordance with the altered conditions upon which their livelihood depended. During summer, regions were habitable and stocked with game which in winter were bare or inaccessible, and man's migrations were mainly determined by the difficulty which he experienced in providing himself with food and shelter. As the race became more civilized, and as individuals learned to bend and shape Nature to their needs, the necessity of following her lead in all things became less imperative, until the dwellers in permanent towns, furnished with provident store and shelter against the rigour of winter, secure of shade from the summer's heat, and with more or less power of obtaining supplies from a distance, became able to defy the tyranny of her seasonal compulsion. But the root of the old race-habit would still remain, ready to bloom vigorously once more on the recurrence of conditions such as those which originally favoured its acquirement, and even making itself felt, now and again, under circumstances in which we might have least expected to observe it. So the tourist hurrying to the lakes in a tweed suit is but an unconscious reproduction of his Celtic forefather in woad; the school-boy with his realistic visions of running away from home and discovering a desert island, is only passing through a developmental stage corresponding to an important epoch in the early history of his race; and it may be that those rolling stones of humanity whose persistent vagabondage it is our custom to deplore are merely extreme instances of reversion to the type of an ancient and respectable, if nomadic ancestry. The rapidity with which the custom of an annual summer visit from home to the seaside—one, in its present form, of such recent growth—has gained and increased its hold on public favour, points to its being the revival, or modified survival, of an old habit rather than the institution of a new one. The hurry of modern life, necessitating alternative periods of com-

parative repose as a set-off against the spasmodic expenditure of energy at high pressure, justifies the principle; the increased locomotive facilities of the age have rendered it more feasible; and, finally, fashion has chosen to endorse it and has labelled it a social duty. This last item is, indeed, the most unsatisfactory part of the business. The health-value of what is popularly called "going for a change" depends, like that of all recreation, mainly upon the degree of spontaneity with which it is undertaken. Once divest the process of its birthright of pleasurable free-will, and substitute for that the rigid dictum of fashion, and you might as well replace the exhilarating gallop across the breeze-swept downs by an hour's compulsory exercise in the treadmill; not only must the specified road be taken, but it must be travelled after a particular style; choice and freedom must be drilled into uniformity; fashion would drive her votaries in a rut and deny their right to the king's highway.

To those who take their pleasure wisely, a holiday is careless only in the best sense of that word. A certain amount of thought expended in the consideration of time and place and method is always well repaid. The wearied brain-worker needs change of scene and of occupation far more than does the handicraftsman and in a different way; a man's natural tastes, in things that is, which do not form a part of the business of his every-day life, may be consulted with advantage; but to exchange bustle for mere idleness, or the stereotyped fatigues of the London season for the stereotyped gaiety of a fashionable watering-place, is to burlesque the restorative methods of true holiday making. People of nervous organization, and the comparatively feeble in health of course do wisely to avoid long and tedious journeys, and scenes involving much excitement, in fact, any inducements to mental or bodily fatigue. The air of sea-side places, dense with watery vapour, is a most powerful agent in abstracting energy in the form of heat from the human body; and those who are deficient in vital force, frequently find themselves improving more rapidly in health on elevated plateaux, where the rarer air, even though colder than that of places at a lower altitude, is far less chilling and exhausting.

Just as children are often greatly benefited by the change from an inland home to the seaside, so not a few are made to suffer by the heedless way in which the fashion is apt to be enforced on all. In the absence of any special indication to the contrary, we may safely say that the infant is always best at home. The desirability of change for older children will vary with their individual temperament, with the natural conditions and surroundings of their home life, and with their state of health for the time being. We would not leave out of consideration the good moral effect of change of scene upon children, provided they are old enough to appreciate it, and not so sensitive as to be over-stimulated by it; but, putting this aside for the present, we may say at once that there are some families of children so fortunately situated that they really do not ordinarily need a change at all. Those, for instance, whose home is by the river side, in a wooded valley, but who, by a twenty minutes' walk, can reach the broad expanse of moorland, where the air is redolent of furze and heather, and charged with the crisp energy of the not distant sea, may obtain all the most bracing effects of change of air on an average at least every other day throughout the year. And for others whose daily surroundings are less perfectly contrasted, it is desirable that a wise method be observed in the choice of the time no less than of the place of the annual outing. No small proportion of the children who will soon be in temporary possession of a large section of our coast-line will have come from homes in or on the very borders of the country. But to leave the country when the country is at its best, while the woods are still unfolding their delicate drapery, when the hay-fields are in their glory, and before the later summer drought has dimmed the green freshness of the hedgerows, is surely a wanton sacrifice of some of the season's most enjoyable bounty. A month or two later, when vegetation has begun to fail and the leaves to turn; when a mist rises at sunset, and the dew lies long on the grass in the morning shadows, is the time to choose for the change to the seaside; taken then, it adds some weeks to the pleasantest memories of summer, while it restores and fortifies the system against the fogs of autumn and the raw asperities of degenerate winter weather. There are many other details which merit consideration. It would often be better for a family to rent a farm-house or cottage in the country—perhaps at but a short distance from their own home—rather than incur all the trouble, worry, and fatigue which a long railway journey to the coast entails upon young children. In any case it is, of course, to be understood that the sanitary condition of the temporary home and of its neighbourhood should be at least as good as that of the permanent home always ought to be. If "sending the children to the sea" is merely to result in their being monotonously promenaded in faultless attire along the esplanade of some fashionable watering place, it is only making a pretence of doing that which had better, under such circumstances, be left unattempted. On the other hand, to crowd half-a-dozen young children together with their nurse and parents into a stuffy railway carriage for an eight or ten hours' journey to a place where they will be packed into lodgings of dubious salubrity, without provision for amusement within doors during bad weather, and with the prospect of a necessary repetition of the wearying journey on the way home, is to seek health for them neither wisely nor well, and in the face of conditions which she is apt to shun.

CLINICAL PAPERS.

XIV.—Graves's Disease.

Notwithstanding the fact that upwards of half a century has elapsed since this disease was first recognised, and that since then it has been the subject of many papers at the hands of various and eminent writers, the fact remains that if a student of the present day is asked in an examination what is the pathology of this disease, he would be quite justified in saying he did not know. He might afterwards qualify his answer by a description of the various theories which from time to

time have been put forward, but no objection could be taken to his assertion that the pathology of the disease is still unknown.

One obvious conclusion from this fact is that the disease is not of an inflammatory nature. Had it been so it would seem impossible that it should so long have eluded the keen and penetrating eye of the histologist of modern times; for at present, although changes have been described in the cervical ganglia of the sympathetic, and by some observers in the central nervous system, others equally competent have been unable to detect similar changes when they have had the opportunity of looking for them. We have used the word inflammatory as we believe advisedly, for, putting aside for the moment all new growths, the only lesions that the microscope reveals to us are more or less inflammatory in their origin or nature. There are many diseases to which a similar line of argument might be applied, such as epilepsy, chorea, and the like. But it is not so much the object of the present paper to discuss the nature of the lesion as to endeavour to indicate its probable seat, and from this point of view it matters not whether it be inflammatory, or due to some unknown molecular disturbances possibly reflex in their origin.

Although there is a great deal to be said against the custom so prevalent in other countries of naming diseases after individuals, there is always this to be said in its favour, viz.: that it involves no theory as to the cause of the disease. To us it has always seemed that the name exophthalmic goitre might in some respects be held responsible for the deficiency of our knowledge of the disorder under consideration. It is true that the name does not imply any expression of opinion as to causation, but it tends to narrow our conception of the disease by seeming to throw undue stress on what are after all only two very striking features of it, neither of which is absolutely necessary to the diagnosis.

Until a few years ago it was commonly taught and generally accepted that palpitation, with increased frequency of the heart's action, enlargement of the thyroid gland, and prominence of the eyes, were the sole manifestations of the disease. And in a general sort of way it was held that these phenomena indicated something wrong with the sympathetic ganglia in the neck; for it was a matter of general knowledge that filaments went to the heart from one of these, and that branches from all of them were distributed to the blood vessels in the neighbourhood. It was not necessary, nor, indeed, quite convenient, to inquire whether the symptoms were due to irritation or paralysis of the sympathetic; nor, where these were surmised to co-exist, was it satisfactorily explained how the same lesion could be at once irritative and paralytic. And even when these difficulties had been partly argued away, it still remained necessary to explain how an irritative lesion could be an abiding one.

A wider view, however, is now taken of the disease, and it is shown that the heart manifestations are but part of a wide-spread disturbance of the vascular system as evidenced by the general loss of tone in the arteries throughout the body, seen in the flushing and perspiration which are so common and sometimes so annoying to the patient. Amongst other manifestations which cannot well be explained on the hypothesis of disorder of the cervical sympathetic, may be mentioned the febrile condition, the attacks of diarrhœa to which these patients are liable, quite apart from any dietetic indiscretion, the hyperæsthesia of the legs, and a symptom to which attention has but recently directed, but which will escape notice unless especially looked for, viz., a very fine tremor of the hands. All of these may be attributed to disturbed vaso-motor innervation and they are not to be regarded as complications, but rather as the perfectly natural result of the disease. They point clearly to one of two things, either to a general disorder of the sympathetic system throughout the body, or to some central lesion influencing the vaso-motor centre in the medulla oblongata. Besides the generally accepted belief that symmetry points to central disease, there are some considerations in reference to the heart which suggest strongly the latter conclusion to be the correct one. It has been shown by physiologists that paralysis of the vaso-motor nerves, by allowing the vessels to dilate too much, would undoubtedly increase the frequency of the heart's action, and would also increase its blood supply, and that irritation of the accelerator nerves of the heart would also cause palpitation, so that there is no need of advancing the hypothesis of paresis of the vagus; but a recent writer has brought forward some facts which, nevertheless, suggest very decidedly that paralysis of the vagus does play a part in producing the well-known condition of the heart. After giving some evidence that it is the right vagus, and not the left, that supplies the cardiac branches, he shows that in cases where the exophthalmos is unilateral, if it be on the left side only, there have been in some cases no heart symptoms, but if on the right side only, heart symptoms were always prominent. If subsequent investigation should confirm the correctness of these observations, the conclusion that paralysis of the vagus plays an important part in the production of the heart disturbances will be irresistible, and an almost final argument will have been gained in support of the theory of the central origin of the disease.

H

REVIEWS AND NOTICES OF BOOKS.

A NEW BOOK ON THE HEART.[1]

Among the host of text-books and monographs which come now from the medical press, it is thoroughly gratifying to occasionally find some which do not bear obvious marks of being written either to order or for the mere sake of writing. Neither inaccuracy nor airing of crotchets, two faults which so largely disfigure our literature, can be charged against the work which is now before us. Those who have read Dr. Bramwell's previous book on the spinal cord would rightly expect to find the result of careful labours set forth with systematic clearness in anything that came from his pen; and they will not be disappointed in their perusal of this treatise on the diseases of the heart.

[1] Diseases of the Heart and Thoracic Aorta, by Byrom Bramwell, M.D., F.R.C.P.E. Edinburgh: Young J. Pentland, 1884.

Although this book deals systematically with the subject and therefore contains much that is to be found in other works, especially in those of Walshe and Sibson, it has two characteristics which entirely preclude the objection that it is superfluous, and, moreover, give it a right to rank among the most useful of English text-books. In the first place the matter is arranged with great clearness and the style is particularly intelligible, being neither redundant nor over-condensed. In the second place, there are signs throughout the work that it is not simply a careful compilation, but that the author has thought out for himself the problems he discusses, and has made the subject his own by assiduous work, both clinical and pathological. We can well believe what the author states in his preface, that he has been "constantly thinking and talking about the subject, and steadily accumulating the material necessary for the production of such a work."

The first chapter is devoted mainly to cardiac physiology, with especial reference to its practical application by the physician. Here the author, unlike too many writers, has wisely kept out of his pages unnecessary details which can be found in their proper place in works on anatomy; and, in his physiological sketch has concisely given the results of the latest researches on the nervous supply of the heart, and the probable functions of its various factors; making especial use here of the writings of the Cambridge School of Physiology. In the next chapter a *résumé* is given of the general pathology of the heart both in its structural and functional aspects; and the third chapter deals with general symptomatology and the methods of physical examination. Here we have an excellent formula for case-taking given at length; and a perhaps over-elaborate discussion of the manner of production of that form of dyspnœa known by the composite name of "Cheyne-Stokes." Throughout this chapter Dr. Bramwell insists on the frequency of cardiac lesions existing at least for a considerable time without obvious symptoms; a fact which, though widely known, is often forgotten by teachers and students, as evinced by the frequent practice of treating a cardiac lesion on the ground of its discovery alone. A clearer exposition than we find here of the various causes which may account for abnormalities in physical signs could not be wished for; it is in fact so full and clear that the reader is thereby almost saved the trouble of thinking for himself. There is perhaps a tendency here and there on the part of our author to an explicitness almost amounting to tediousness, but this is doubtless a fault on the right side, and will be welcome at least to beginners. The statement, however, that the syllables *lupp dupp* "give a very good idea of the normal character of the cardiac sounds," we certainly cannot endorse; nor do we think that Dr. Bramwell has amended matters in this instance by changing our old friend *lubb*, which has done such long, though questionable service, into the still more useless *lupp*. How the same consonants can be said to represent the termination of the two sounds of the heart our ears at least cannot explain to us; but the matter is of less importance than text-books usually give to it. The numerous diagrammatic representations of the murmurs will be found useful, and not the least, because often ignored that of the mitral murmur which is heard during the diastole but is not strictly præ-systolic. In this context of murmurs, we could wish that the author had omitted the first word from an apparently favourite phrase of his, viz., "The *differential* maximum intensity of a murmur," this word being most often superfluous as he uses it, and apt to cause some obscurity. A very full discussion of the views of various authorities on the so-called functional murmurs, especially those occupying the pulmonary area, leads the author to the conclusion that the generally accepted, or "purely pulmonary" theory is the most probable; but he touches very lightly on the *rationale* of the explanation he espouses. The question of the anæmic murmur, though presenting but little clinical difficulty, is always a pathological bugbear to writers and teachers, and like many other questions of purely vital mechanism will perhaps never be set at rest. The author is probably perfectly right in the view that he takes, but his successfully destructive criticism might with advantage have been somewhat shortened.[2] This chapter ends with a clear and sufficiently full description of the examination of the pulse, and a well and numerously illustrated exposition of the use of the sphygmograph.

The subject of pericarditis is well handled by Dr. Bramwell. Its morbid anatomy is extensively illustrated by drawings, and its diagnosis plainly set forth with the aid of differential tables which will be the delight of examinees. The frequent clinical relationship of pericarditis to pneumonia is, however, not sufficiently brought out, and indeed is but just hinted at under the heading of secondary pericarditis due to inflammation or new growths in adjacent organs. Whether or not there is most often a "rheumatic" nexus between pneumonia and pericarditis, the concomitant or sequent occurrences of these two inflammations should be specially pointed out in a work of this importance. Due stress is laid by the author on the very frequent involvement of the muscular substance of the heart in pericarditis, a fact known to many observers and especially insisted on by Sturges, but too frequently overlooked. The similar involvement of the myocardium in endocarditis is also well pointed out in the subsequent chapter on *endocarditis*, and obviously has important bearings on the great value of prolonged rest after attacks of rheumatic fever even where there is little or no evidence from physical signs of the occurrence of valvulitis. While giving the requisite weight to absolute rest in the treatment of pericarditis, our author touches on perhaps somewhat dangerous ground in recommending immersion in a cold bath even where hyperpyrexia exists, though he appears alive to the difficulty which suggests itself by advising that the patient should be at once removed from the bath "if any serious symptoms of cardiac depression arise." He also mentions, unfortunately without original comment, the use of aconite in pericarditis. The same somewhat uncertain sound as regards the treatment of heart

[2] Similar remarks would be applicable to a *brochure* by Dr. J. K. Fowler, "On the Origin of Anæmic Murmurs," just published by Messrs. Churchill, which, though giving an account of the various views on the subject, contains little of novelty save a suggestion that there may be a connection between the degree of anæmia and the appearance of the different "anæmic" murmurs.

inflammations is heard in the discussion of the administration of salicin or salicylate of soda. He advises the discontinuance of at all events the latter of these drugs in rheumatism when endocarditis occurs, on the ground of its uselessness in this complication and its tendency to produce cardiac depression. In his section on *myocarditis* he distinctly teaches that where there is evidence of this affection neither of these drugs should be given. But considering his reiterated and valuable insistence on the occurrence of some degree of myocarditis in most rheumatic affections of the heart, and the admitted great frequency of both obvious and latent endocarditis in rheumatism, the author's strong recommendation of salicin in full doses in acute rheumatism, as a prophylactic against cardiac mischief, is not in strict logical sequence with his own teaching. In one paragraph indeed there would seem to be almost a direct contradiction, where we read the words : "In the treatment of acute rheumatic endocarditis I would strongly advise the administration of full doses of pure salicin ;" were it not for the probability from what follows that the word "endocarditis" has slipped in here by a mistake, and that acute rheumatism alone was meant. And in the last place, before leaving the subject of therapeusis, it must be mentioned that some little confusion is evinced on the question of the treatment of so-called pernicious anæmia by arsenic. There is no doubt in the minds of most that arsenic is a valuable drug in many cases of obstinate anæmia ; and it was given in anæmia before Dr. Bramwell himself first publicly recommended it in the so-called pernicious form of the disease. Cases too of apparently the idiopathic form have doubtless recovered with, or perhaps owing to, the use of arsenic ; but Dr. Bramwell himself somewhat naïvely says that he has met with cases where it has failed, and that he knows of no means by which to distinguish the cases of progressive anæmia which are curable by arsenic from the cases which resist this drug. Surely then, according to the author's own showing, if the word "pernicious" means anything, or if the previous clinical knowledge of this obscure affection is not to be ignored, there is no justification for the rather sweeping statement on page 464 that many *undoubted* cures by arsenic of this previously *intractable* disease have taken place. (The italics are our own).

The chapters on the valvular diseases of the heart and the various affections of the heart-muscle itself are full and thoroughly satisfactory, and give ample evidence of careful study and extensive personal experience. It is much more easy when reviewing a book like this to pick out the blemishes which are few and far between than to emphasise its points of value which are numerous enough to recommend it as one of the best text-books on the subject for the student. The different nature of the symptoms of chronic valve disease, especially those of the aortic and mitral valves, is clearly set forth, and the indications as to treatment leave nothing to be desired. In the discussion of the whole of this very important class of affections Dr. Bramwell is perhaps at his best. The great frequency of aortic valve disease alone, as the result of affections of the vessel apart from acute inflammation, is more than once alluded to ; but it might have been stated with still more emphasis that rheumatic endocarditis but very rarely produces disease of the aortic valves alone.

The subject of cardiac neuroses is dealt with in a very short chapter, but the teaching conveyed thereby is sound, practical and clear ; and the book ends with a most valuable one on diseases of the aorta, in which good use is made of rich pathological material. The illustrations are of great merit, and cannot fail to give a vivid idea of the conditions underlying the often obscure symptoms of intra-thoracic disease. The matter of differential diagnosis is treated very explicitly here, as indeed throughout the book, forming one of its most prominent characteristics. A careful perusal of this work will well repay the student and refresh the memory of the busy practitioner. It is the outcome of sound knowledge and solid work, and thus devoid of all "padding," which forms the bulk of many monographs on this and other subjects. The material is treated with due regard to its proportionate importance, and the author has well and wisely carried out his apparent intention of rather furnishing a groundwork of knowledge on which the reader must build for himself by personal observation, than of making excursions into the region of dogma and of fancy by which his book might have secured a perhaps more rapid, but certainly a more evanescent success than that which it will now undoubtedly and deservedly attain.

On the formation of Uric Acid in Animals ; its relation to Gout and Gravel ; by P. W. Latham, M.D. Cambridge. Deighton, Bell, & Co., 1884.—Probably not many of our readers would find themselves competent to follow Dr. Latham through the elaborate and somewhat abstruse chemical problems here set forth. The outcome of it all is, if we have read him aright, that the appearance of uric acid in the blood is the result of the non-transformation of glycocine into urea. This may be, and often is, due to a sluggish liver, but this will not account for all cases of gout, for instance, for its occurrence in people not specially addicted to good living, but who have a hereditary tendency to it. Such cases would be better accounted for by the supposition of a weak spot in the medulla near the nucleus of the vagus. On this theory it would be easy to understand the association that has so often been observed between gout and diabetes. A similar line of argument will explain why mental worry and fatigue are such potent factors in bringing on an attack of gout. This hypothesis, too, affords an explanation of the fact that gout does not attack a non-predisposed individual before middle life. So long as the kidneys throw off the uric acid as fast as it is formed, not much harm comes, but when they begin to do their work inefficiently, the uric acid travels about in the blood, and finds out the weak spots in the nervous system. With considerable ability, Dr. Latham proceeds to derive support for his views from the effects of treatment, the object of the latter being of course to diminish the formation of glycocine, or if it is already formed, to get rid of it. From this aspect, the correctness of his views would seem to be well established.

A Plea for the Cure of Rupture ; by Dr. J. H. Warren. Boston : Osgood & Co ; London : J. & A. Churchill.—Dr. Warren, whose name is well known in connection with the subject of hernia, and more especially in regard to its treatment by subcutaneous injection, proceeds, in the little work before us, to consider the subject of inflammation in its relation to tissue change. Quoting from our most esteemed pathologists, he points out that "whenever artificial or pathological irritation has determined a growth of embryonic elements, if the irritation cease, this new growth always tends to return to the original form of the tissue, which

served as a matrix." His treatment consists in the injection, subcutaneously, of an irritant solution into the fibrous structures surrounding the neck of the sac, with the intention of setting up a "growth of embryonic tissue," which is to close the openings that allow the passage of the hernia. The author develops his theory with great ability, and demonstrates his practice with precision and clearness; and he appends a long list of cases, in which his treatment has been successfully practised. We have only once seen this plan tried: the syringe Dr. Warren particularly advocates was used, but the result was *nil*. On the other hand, we have now seen and practised other methods, which, perhaps on that account, seem to promise a more certain cure, and to which, for many reasons, we should give preference; with antiseptic precautions—the value of which our author appears fully to realise—a cutting operation which permits the surgeon to see what he is about, can now be undertaken almost without any risk to the patient, and we feel sure that such an operation is, in the nature of things, at all times preferable to a subcutaneous one for the radical cure of a hernia. Nevertheless, we would recommend all those who are interested in hernia, to read Dr. Warren's book which, we may add, is an admirable specimen of the printer's art.

The Pathology and Treatment of Venereal Diseases; by Drs. Bumstead and Taylor. 5th Edition. Revised and Re-written by Dr. Taylor. 139 Woodcuts and 13 Chromo-Lithographic Figures. London: H. Kimpton; Philadelphia, Lea and Sons. 1883, pp. 906.—In the preface, Dr. Taylor pays a well-deserved tribute to the memory of his former master and *collaborateur*, Dr. Bumstead, whom he compares to the "still living" Ricord in France, and to the late Sigmund in Germany, as the American "pioneer and master" of this department of medicine. We are really, therefore, concerned with a book written more or less entirely by Dr. Taylor, whose knowledge and fitness for his task may not unfairly be gauged by the great improvement which the fourth edition manifested over the third, and not less by the great improvements which have been made in the present edition, though so short an interval has elapsed since the former edition was issued. The book is very similar in scope and general arrangement to the well-known English work on the same subject by Mr. Berkeley Hill. Both are alike full and explicit in detail, and founded on a large and varied experience; such differences in doctrine as may be found being but the legitimate independence of view which two individuals may exercise in the decision of difficult or doubtful points in pathology. Thus, in the hereditary transmission of syphilis by the father, Hill believes that the mother is likewise necessarily infected; but Taylor, on the other hand, thinks that the father may transmit syphilis to his offspring "even without the infection of the mother." That two such conflicting opinions should exist on what, *à priori*, one would imagine a very simple question, is not a little curious. Another distinguished surgeon in London thinks the mother is infected, but that it is in a very modified form. Hill, on the contrary, believes that the infection taking place, runs its usual course; and if the surgeon fails to detect the initial lesion, the fault lies in the difficulties of adequate examination, and not in its absence. The chapters on hereditary syphilis are those with which we are least satisfied; they appear to us to lack the ring of personal observation which largely characterises many of the other chapters. Most of the subjects are dismissed very briefly, and, as they stand, consist chiefly of the opinions of others. Under syphilitic dactylitis, the author describes a condition which we believe to be strumous in the great majority of instances. The chapters on treatment are good. The author is a firm believer in mercury during the initial and secondary stages, and of iodide of potassium, or a combination of the two for the tertiary state.

The Cinchona Barks, Pharmacognostically considered; by Professor Flückiger. Translated, with some additional notes, by Frederick B. Power, Ph. D., with eight lithographic plates and one woodcut. London: J. and A. Churchill. It is doubtful if, in the two centuries that have gone by since the cinchona barks came into general use as febrifuges, such another signal victory over disease has been recorded in the annals of medicine. Amongst the crowd of modern remedies, the cinchonas and their alkaloids continue to claim one of the most important chapters in Materia Medica. Professor Power has done good service in presenting Flückiger's admirable monograph in the vernacular form. For Englishmen and Americans, who are called on to deal with malaria over so large an extent of the world's surface, the subject has an especial interest; and the rapid extension of the cultivation of the trees in our Eastern dominions bids fair soon to attach a very practical value to a familiarity with it on the part of army surgeons and colonial practitioners. Professor Power's translation has been made with care and appreciation; and his amplification of the author's section on the methods of assay, which erred a little on the side of brevity, has added considerably to the utility of the work. The translator's avowed aim at a literal rendering may explain, if not excuse, the occasional appearance of a dialect which is neither English nor, as we charitably believe, American.

Histological Notes for the use of Medical Students: by W. Horscraft Waters. London: Smith, Elder & Co., 1884.—A useful little book, not pretending to teach histology, but merely to put the student in the way of learning, to guide him into a systematic method of work, so that nothing shall be passed over. The book seems well adapted for the purpose for which it is intended.

ABSTRACTS AND EXTRACTS.

BILLROTH ON EXTIRPATION OF THE KIDNEY.

Operative interference in cases of renal calculus or other intractable conditions of the kidney is gradually becoming accepted as an orthodox surgical procedure. Recognising this important fact, Professor Billroth has recently delivered an address on the subject of extirpation of the kidney, which will serve to establish the operation still more firmly in its position among the recent advances in abdominal surgery. Although unable to record any striking series of personal successes, he analyses with considerable minuteness the recorded results of others. Since the operation was first introduced by Simon fifteen years ago, there have been nearly 150 such cases put upon public record. For statistical purposes, however, these are far too few to form a basis for any trustworthy conclusions. The operations themselves have varied very widely. The nature of the disease for which the operation was undertaken, and, above all, the condition of the opposite kidney, are points so vitally important in determining the issue of each case, that no general comparison of cases can as yet be profitably made.

In all new operations also, it must be remembered that many cases are unsuccessful owing to the late stage of the disease in which the radical cure is attempted. The importunities of patients clamouring for relief at any cost cannot always be disregarded, and many operations are undertaken under pressure, which would never be attempted if the unbiassed judgment of the surgeon were left untrammelled.

Of 132 cases of extirpation of the kidney, 70 recovered and 62 died. For prognostic purposes such figures are worth absolutely nothing, but at any rate, they prove that in more than half the cases it is at least possible for recovery to take place after removal of one kidney. In classifying cases for operation, a special place must be reserved for those in which the removal of the kidney is really accidental, that is, in which the tumour to be removed has been diagnosed as non-renal, or in which such a tumour has become so firmly adherent to the kidney as to necessitate removal of the whole mass. Healthy kidneys have occasionally been removed, and sometimes successfully after injury, or for the relief of incurable urinary fistul[illegible]. In one case of the latter, Professor Billroth him-

self operated with partial success, which, owing to the general enfeeblement of the patient's powers, was not maintained. In certain cases also of floating kidney, the healthy organ has been completely removed. Of 14 such operations, 8 were successful and 6 unsuccessful, partly from inanition and partly from peritonitis. Twelve of those cases were operated on through an anterior incision, and two through the loin.

Attempts at fixation of a movable kidney have hitherto failed, but in Professor Billroth's opinion, "we must not relax our efforts towards further search in this direction, and the devising of some new method of fixation, or by some other means to prevent the movable kidney from exercising a drag on the stomach. Perhaps one of these days a happy thought in this direction will occur to some one."

Extirpation of the diseased kidney may be undertaken for renal suppuration, hydronephrosis, or renal tumours. Professor Billroth himself has never performed complete removal of the kidney for renal abscess. In deciding to operate, the really important point upon which success or failure may turn, is the condition of the opposite kidney. In a few cases the establishment of a fistula and free drainage from the pelvis of a suppurating kidney may be followed by the passage of clear non-purulent urine from the bladder. There can then be no reason to doubt the health of the remaining organ. But in certain other cases, the passage of pus with the urine persists, notwithstanding such free drainage. In either case the indications are not really trustworthy, but at present no better guides can be relied upon. Looking to all these conditions, and also to the variety of mischances to which such a procedure is liable, it must be allowed that the success of the operation in 22 cases out of 40 is really somewhat astonishing.

With respect to nephrectomy in cases of hydronephrosis, it must be borne in mind that such cases have occasionally been cured without operation, and, further, that they are not of necessity fatal. The diagnosis in the first instance is beset with difficulty. "The anatomical relations of the sac of a hydro-nephrosis," says Professor Billroth, "the relation of its contents to the ureter, and the indications given by their chemical composition, in which both urea and uric acid may be entirely wanting; the diagnosis by palpation and percussion, all these are very difficult matters, and I will not go closer into them at present. Like the diagnosis of abdominal tumours in general, they form but a contribution to the history of diagnostic failures, which are ever and anon demonstrating to us, *ad oculos*, the limits of our art." Nine cases in all are recorded of the extirpation of a hydronephrosis, and of these the majority were originally diagnosed as ovarian tumours. Six were completely cured and three proved fatal.

The statistics of nephrectomy for new growths are less satisfactory. Of 33 operations, 20 failures are recorded as against 13 successes. "One can hardly wonder" (at these results) "when one reads with a shudder of what has been attempted in this direction. It seems to me that here at least one has gone a little too far." In two cases operated on by Billroth himself and not hitherto published, good recovery took place. The first case, in which a large myxo-sarcoma was removed by abdominal section, and the second in which the lumbar incision was made, may be taken as type cases of the two forms of operation. Following Czerny, with his unprecedented experience of 18 cases of nephrectomy, Billroth expresses a decided preference for the lumbar operation. Although the removal of a healthy kidney through the loin may be effected with the greatest ease in the dead subject, it is quite a different matter to remove a suppurating kidney. The most important points are the finding and properly securing of the ureter, and of the renal artery and vein. The healing of the wound does not appear to be attended with any special risks, although abscesses may occasionally form.

Nephrectomy by means of laparotomy is attended with much greater risks owing to the exposure to septic infection of the peritonæal surface. The serous effusion which takes place from the edges of a fresh wound is the fluid above all others favourable for the development of all kinds of micro-organisms, and all possible means must be employed to prevent the access of this fluid to the peritonæal cavity. Professor Billroth observes, in conclusion, that operative interference in the cavity of the abdomen can only bring relief in a certain class of cases. "It is now the task of the present day to recognise and define still more clearly the class of cases in which surgical measures are of use. If we have here and there pushed the limits of surgical benevolence somewhat too widely, we may, without discredit, retract them a little as our experience extends, but at the same time fix them upon a still firmer basis. If the surgeons of to-day will not fancy themselves to be such all-powerful fellows, but will be content to follow with modesty the example of their brethren the physicians, indefatigably investigating and combining, we may yet succeed in bringing cure, or at least temporary relief of their troubles to still more unfortunate sufferers. This is, and always will be, the ultimate aim of our common scientific and humane endeavours, and the real end and object of our noble calling."

MEDICINE.

Croupous Pneumonia in Damp Weather.—A vast amount of literature upon the subject of acute pneumonia has been published during the last twenty years. So vast indeed that it might well be supposed that the last instructive word must have been uttered a long time ago, and that the writings of to-day can only contain oft-repeated facts clothed in a varied form of literary dress. A recent paper by Dr. A. Seibert, of New York (*Berl. Klin. Wochenschrift*, No. 18, 1884), however, attacks the very difficult question of the influence of the weather upon the occurrence of the disease, and brings forward certain considerations which have received but little attention in most of the standard text-books and special treatises upon this subject. Sudden changes of temperature, and the prevalence of certain winds at various seasons of the year, have been held responsible for the causation of the disease by almost all writers. According to many authors the climatic conditions which give rise, or predispose to, croupous pneumonia, are not identical with those which are associated with the occurrence of the general catarrhal affections of the respiratory organs. Dr. Seibert's experience leads him to hold an exactly opposite view to this, and in support of his own belief he enters into a critical examination of the works of others upon the same subject, with the following results. The prevalence of pneumonia during the colder months of the year is proved by the statistics of several observers. In almost all their tables the disease is shown to be at its lowest during July, August, and September. Dr. Seibert's cases prove that this rule holds good in New York as well as in Europe. The frequency of catarrhal affections during the same period, was denied by Professor Jürgensen, but a later series of observations, emanating from the same school, have been carefully tabulated by Keller; the tables showing beyond dispute that the cases of the catarrhal and of the croupous forms of inflammation have occurred in close correspondence with one another. The precise atmospheric conditions, however, have not been sufficiently clearly defined, the relative moisture of the air during any given period being roughly estimated by the amount of rainfall. The fallacy of this method of reckoning is demonstrated by Dr. Seibert with considerable force. A month's rainfall may simply imply the amount of rain which fell on one excessively wet day, the remaining days being dry and fine. A still greater fallacy is that which assumes that rainfall is under any circumstances a trustworthy criterion of the relative moisture of the air. The air may often be comparatively dry upon a rainy day, and is frequently very moist on a day when no rain falls. To determine with any approach to accuracy the relation of the atmospheric conditions to the prevalence of this or that disease, it is absolutely necessary to observe the *daily* changes of barometric and hygrometric readings. With low barometric pressure there is frequently associated a relatively moist condition of the atmosphere, and observation both in America and Europe has shown the connection of pneumonic attacks with both these states. In a long series of cases the commencement of the disease was found to be coincident also with a sudden fall in temperature, the relative moisture remaining the same. The fact that in the

cool and cold periods of the year the moisture of the air rises and falls with its temperature is generally well recognised, and Dr. Seibert's cases go to prove that it is especially during periods of variation from this rule that both acute pneumonia and catarrhal affections of the air passages are most prevalent. The ordinary teaching of climatologists is fully in accord with this view. Cold moisture is always more or less obnoxious to the physiological perfection of the body, and is especially liable to produce catarrh, but the question whether a previously catarrhal condition of the mucous membrane is essential for the development of the specific exciting cause of croupous pneumonia must remain as yet undetermined.

Muscular Infarcts.—After some remarks on the rarity of this occurrence, M. Giraudeau (*Revue de Médecine*, June), relates two cases where this took place. The first was a woman, aged 60, who suffered from generalised atheroma, and who a few days before her death presented a hard swelling about the middle of the thigh, which had appeared after a sharp pain which had seized her quite suddenly at that spot the evening before. At the *post-mortem*, the sartorius was found to be ruptured, and the swelling was due to an effusion of blood at this point. On examining the ends of the muscle, it was found that one-fourth was healthy, the other three-fourths being firm and rather pale; the hæmorrhage had presumably come from the healthy part. On microscopical examination, the muscular artery nearest to the diseased area was found to present marked sclerotic changes. In his second case a similar thing happened in the pectoralis major of a woman, also the subject of generalised atheroma. The extreme vascularity and richness in anastomoses of the muscular tissue must be assumed to be the chief reason why infarcts are so seldom found in this region. The following conditions are necessary to their formation:—(1) The arterial system must have lost its elasticity, the walls being thickened and rough, so that the rate of the circulation is thereby impeded. (2) The heart too must have lost its tone so that the patient gradually falls into a state of asystolism. Under these circumstances there is established a general state of anæmia, and when an arteriole becomes occluded by thrombosis or embolism, the anastomotic circulation is insufficient even in so vascular a tissue as the muscles to maintain the nutrition of the part.

Disseminated Sclerosis.—In a series of articles in recent numbers of the *Progrès Medical*, M. Marie has studied the relationship between disseminated sclerosis and the infectious diseases, of which typhoid fever is taken as the type. He considers it to be generally admitted that disseminated sclerosis is a vascular disease, and that it is due to arteritis, and he goes on to point out that arteritis is a frequent result of the infectious diseases, and that just such a scattered process is produced as is typical of disseminated sclerosis. This disseminated arteritis appears often at a late stage of the primary ailment, or during convalescence, or even sometimes when the cure had seemed to be complete. Even when it appears at so remote a period, M. Marie believes there is a causal relationship at work, and regards it as a late manifestation rather than as a late complication of the typhoid fever, or other disease upon which it followed. The final outcome of these papers is, that disseminated sclerosis is no longer to rank amongst the diseases of the nervous system, but is to be regarded as the localisation in the cerebro-spinal centres of the vascular determination of various general disorders, which seem to be always of an infectious nature. The author considers that these manifestations bear much the same relation to typhoid or other fever that secondary or tertiary symptoms do to primary syphilis.

OBSTETRICS AND GYNÆCOLOGY.

Ovariotomy in Russia.—In the *St. Petersburger Med' Woch.* (Nos. 15–18), Dr. Krassowski tabulates all the particulars of 128 ovariotomies which he has performed during the twenty years, December, 1862, to January, 1883, and the following are the conclusions at which he arrives from a consideration of these cases, which he states have been observed with most scrupulous exactness:—(1) Of the 128 ovariotomies (by which 178 cysts were removed), 70 were followed by recovery, and 58 by death, *i.e.*, a mortality of 45 per cent. Among them 113 were complete (91 single, with 51 deaths; and 22 double, with 10 deaths); 9 incomplete, with 6 deaths; and 6 mixed, *i.e.*, the cyst removed entirely on the one side and imperfectly on the other, with 2 deaths. The mortality of the partial and mixed ovariotomies amounted to 53 per cent. (2) With respect to the *contents of the cysts*, these were colloid in 117, serous in 5, dermoid in 3, and papillomatous in 2. In 84 cases (with 41 deaths), nutrition was much impaired; while in 44 cases (with 17 deaths), this was in a good condition. (3) *Age of the patients.*—While 69 of these were between 20 and 40 years of age, and 39 were between 40 and 60, only 7 were between 15 and 20. The results were more favourable between 15 and 30 (with a mortality of 35·5 per cent.), than between 30 and 50 (47 per cent.), or between 50 and 60 (61 per cent.) (4) Of the 128 patients, 33 (with 13 deaths) were virgins, 30 (with 13 deaths) childless married women, and 65 (with 32 deaths) women who had borne children. (5) In relation to *the menses*, in 20 these, under the influence of the disease, entirely stopped, in 11 they were more, and in 5 less abundant than normal, and in 9 more, and in 6 less frequent. In 50 they were completely normal. In 21 cases they had already become arrested at the climacteric period, and in 6 from unknown causes. After completed double ovariotomy, menstruation was never observed to recur. (6) Of these 128 ovariotomies, 24 were performed in private practice either at St. Petersburg or its vicinity, with 11 deaths or a mortality of 45·8 per cent., and 104 in hospital practice, with 47 deaths or 45 per cent. Those operations, which were performed at a little distance from St. Petersburg, were the most successful; but although in the hospital cases the greatest care was taken as to temperature and cleanliness, there were always too many persons allowed to be present, and in one of the hospitals in which 33 operations (with a mortality of 48 per cent.) were performed, the room employed was small, crowded, and lighted by petroleum. (7) The mortality, according to *season*, ranged from 66 per cent. in January, to 60 in May, 50 in November, and 70 in December; while in April, June, July, and August, it varied from 0·36 to 14 and 20 per cent. (8) *Adhesions* to the *different organs.*—In executing the 128 operations there were found no adhesions in 36 cases (with a mortality of 30 per cent.) and 92 with adhesions and a mortality of 51 per cent. The adhesions were easily separable in 17 cases (with a mortality of 47 per cent.) and required cutting instruments, &c., in 75 cases, with a mortality of 52 per cent. This last category of cases is treated at considerable length, quite beyond our space. (9) The *weights* of all the cysts operated upon amounted to 3,750 lbs. apothecaries', or about 1,343 kilogrammes. The heaviest weighed 76 lbs., and the lightest 1 lb. 7 oz., the mean weight of all the cysts being 29 lbs. (10) As to the influence of *prior treatment*, puncture was resorted to in 28 cases with no definite results, but the mortality was only 36 per cent. where paracentesis was preferred prior to the operation. In 96 cases internal and local medicinal agents had been employed. (11) A table is given of the age of the tumour, but this is admitted to be founded upon very uncertain data. (12) *Chloroform* was used in all cases, the largest quantities administered having varied in four cases from 5 oz. to 7 oz., and the operations lasting from two to three hours. The entire amount consumed in the 128 operations amounted to 22½ lbs., apothecaries', or 8,061 kilogrammes. Collapse ensued in two cases during, and in six afterwards; but these were restored by drawing out the tongue and hypodermic injection of tincture of musk. (13) The shortest *duration* of the operation was 25 minutes, and the longest 4½ hours; the mean duration having been 1 hour and 41 minutes. (14) A table is given of the *length of the incision* in all the cases, the inference being that this exerts no influence on the issue of the operation, this being chiefly due to the amount and nature of the adhesions. For Dr. Krassowski's observations on the management of the pedicle and dressing the wound, and the employment of drainage tubes, which are of considerable interest, we regret that we we have not space.

Partial Inversion of the Uterus by a Fibroid.—Dr. Werth, of Kiel, contributes to a recent number of the *Archiv für Gynäkologie*, a case in which, after removal by the scissors of a submucous fibroid which seemed to be polypoid, it was found that the tumour had partly inverted the uterus, and that in cutting through what appeared to be its pedicle a piece of the uterine wall had been removed, leaving a hole leading into the peritonæal cavity. The cut surface bled very freely, and Dr. Werth, finding it impossible to arrest the hæmorrhage, enlarged the opening (which was on the posterior wall) downwards, continuing it into the os. Even after this had been done, the hæmorrhage could not be controlled, and so as a last resource the uterus was removed. The patient did well. Dr. Werth discusses the question whether the inversion was present before the parts were interfered with, or was produced by traction on the tumour, and comes to the conclusion that it was not produced by traction. He suggests that in any case in which a polypus has a base broad enough to make it possible that a partial inversion may co-exist, it will be well to pass a ligature through the pedicle before cutting off the polyp, so that if a bit of the uterine wall should be taken away with the tumour, it may be possible to bring the margins of the gap together by suture. Dr. Werth's paper concludes with a useful collection of cases in which uterine tumours were complicated by inversion.

Hydramnion in Extra-Uterine Pregnancy.—An interesting case of this kind is reported by Dr. R. Teuffel, of Chemnitz, in a recent number of the *Archiv für Gynäkologie*. It is important as exemplifying a rare source of error in diagnosis. The patient was 36, and her last child had been born fourteen years previously. Menstruation stopped in March 1881, and the usual symptoms of pregnancy were noticed. In August, 1881, the patient suffered from severe and long-continued abdominal pain, and was medically treated for inflammation of the bowels. September 25th, 1881, labour like pains came on, with hæmorrhage, and the expulsion of a membrane, this latter being seen only by a midwife. Birth was daily expected but did not follow, and fœtal movements were still felt in October and November, after which they ceased, and the size of the belly began to slightly diminish. In 1882 the abdomen began to increase again, she felt well, and in March, 1882, menstruation reappeared. When she came under treatment she was wasted, sleepless, suffered pain, but was not feverish; the circumference of the belly was 116 centimetres (46 inches), it was dull, with resonance in the flanks, fluctuating, with solid masses here and there to be felt. A firm rounded swelling occupied the pelvis, pushing the uterus upwards, forwards, and to the right. There was no œdema of legs or other parts. The case was diagnosed as one of ovarian cyst, and an exploratory puncture was made. The fluid withdrawn gave a sediment on standing, in which striated muscular fibre was identified. Feverish symptoms followed the puncture, with pain, diarrhœa, and vomiting, and in ten days the patient died. On autopsy the cyst was found to contain a full-term macerated child and several litres of amniotic fluid. There was neither effused blood, nor signs of peritonitis, so that the immediate cause of death remained a mystery.

The Enucleation of Uterine Fibroids.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a valuable clinical paper on this subject by Dr. R. Lomer, of Berlin. He points out that the advances in abdominal surgery made of late years alter very considerably the point of view from which we should regard the enucleation of fibroids. Enucleation is in many cases very difficult and attended with considerable danger, while fibroids can often be removed by abdominal section with much less risk, or made to shrink away by removal of the uterine appendages. Enucleation must, therefore, in the future be reserved for cases in which the fibroid is so situated that its removal by enucleation is easy, or in which an abdominal operation is attended with more than usual difficulty. These cases are specified as follows (*a*) fibroids of the cervix, (*b*) submucous and interstitial fibroids in which the process of expulsion into the vagina has begun. In cases in which no dilatation of the cervix has taken place, enucleation should be rejected as too dangerous, it being better to operate by laparotomy. In cases in which labour is obstructed by cervical fibroids, the possibility of enucleation should be the first thing considered. Dr. Lomer discusses the chief difficulties and dangers encountered in the performance of enucleation, but does not throw much light upon them. This portion of his paper is rather a comparison of the experience and suggestions of different authors, than an expression of Dr. Lomer's independent judgment.

Elastic Pressure in Inflamed Breast.—Dr. Manning, writing in the *Philadelphia Medical Reporter* (January 26th), after observing on the desirability of extending the practice of elastic pressure as a means of arresting incipient inflammation in the early stages of whitlow and inflammation of the joints, &c., particularly directs attention to its great utility in inflamed mammary gland. Adhesive strapping, which is often recommended for preventing or relieving such inflammation, is, he observes, found very unsatisfactory in practice; while the treatment of threatening abscess by elastic pressure can be conducted quickly, safely, and pleasantly. Take a piece of rubber, known among dentists as coffer-dam, about eight inches square, with a hole large enough to admit the nipple. Tie a tape to each corner of this, and carry them round the body and over the shoulders, so as to press the gland equally and firmly against the ribs. This supports the breast as in a sling, and relieves the pain due to weight and dragging. The same appliance to an over-secreting gland causes the secretion to disappear in a few days; and when the breast has already suppurated, it relieves suffering and hastens convalescence.

Pruritus Vaginæ.—Dr. Hach stated at the Riga Medical Society (*St. Petersburger Medicinische Wochenschrift*, March 22nd), that, in a very obstinate case, in which various external and internal means had been employed in vain, he had met with complete success from dusting the mucous membrane of the vagina with iodoform. Beyond slight redness of the vagina, no diseased appearances were observable. Dr. Rulle stated that he had often employed iodoform balls in this affection, but had derived better results from the watery extract of opium, and small injections of cold water. He believed that this pruritus often arose from a slight dilatation of the rectum, just above the sphincter ani, which gave rise to detention of fæces there.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 4th, 1884.

H. Gervis, M.D., F.R.C.P., President, in the Chair.

The following Specimens were shown.

Dr. Malins. Prolapsed uterus removed with a fatal result.

Dr. Walter, of Manchester. Ovarian cyst which ruptured into the abdominal cavity, the fluid being afterwards partially discharged through an ulcerated umbilical hernia.

Dr. Aveling. Meyer's dilators for any cavity.

Dr. Graily Hewitt and Mr. Shattock. A specimen of spondylolisthesis.

Dr. Priestley. A drawing of chronic papillar inflammation of the vulva.

Dr. Barnes. An ovary showing commencing cystic disease.

Dr. Mansell-Moullin. Fundus uteri, removed for inversion, of four years' duration.

Dr. Horrocks. Placenta from a case of triplets.

Dr. Heywood Smith. Guyres' electric speculum.

Spontaneous Absorption and Recovery, after Pulmonary Thrombosis.

In this paper Dr. W. S. Playfair recorded a case of serious illness and recovery, following a protracted and difficult labour. He analysed the symptoms and

attempted to show that they could only be explained on the hypothesis of a thrombosis deposited in the pulmonary artery becoming spontaneously absorbed. He pointed out that the possibility of recovery under such conditions had not been sufficiently recognised. A second case was also recorded in the paper.

Dr. BROADBENT had seen the second of Dr. Playfair's cases. There were no pelvic signs, but there were the following signs connected with the chest—one or two paroxysms of dyspnœa, a peculiar murmur over the right auricle, followed by the signs of pulmonary embolism; the auricular murmur was replaced by a systolic pulmonary murmur, and obscuration of the pulmonary second sound. The left tibial vein had been inflamed, and the right iliac vein afterwards became obstructed. Recovery was complete, except that the right leg was still swollen.

Dr. GALABIN thought that, in view of the facts of pathology, Dr. Playfair had in his earlier writings attributed too much to thrombosis. In the case related by Dr. Broadbent he considered that the clot, first formed in the right auricle, had become detached, and formed an embolus in the pulmonary artery.

Dr. BARNES referred to a former contribution to the "Obstetric Transactions," showing that in many cases embolism followed thrombosis. He was sure he had seen cases recover from pulmonary embolism.

Dr. WILTSHIRE had seen a case of recovery after puerperal pulmonary thrombosis. He agreed with Dr. Playfair's diagnosis of the second case, but thought the first case was one of ulcerative endocarditis.

Dr. BROADBENT replied to Dr. Galabin that he did not think there had been embolism of the trunk of the pulmonary artery, but that the clot had extended into it from the auricle, and an embolus detached from it had settled in the left lung. An embolic clot, if free, would not lodge in the pulmonary artery. He thought clots were removed rather by disintegration than absorption.

Dr. PLAYFAIR in reply stated that many of the objections had already been answered elsewhere; that thrombosis occurred within a few days after delivery, embolism not till the lapse of two or three weeks, a period required for the softening and detachment of a clot. He did not believe that either case was due to ulcerative endocarditis; the murmur must continue as long as the clot remained.

On Fœtal Revolutions.

Dr. J. MATTHEWS DUNCAN, in a paper on this subject, thought that revolutions as distinct from rotations had been too much neglected in studying the mechanism of delivery. He showed the difficulty introduced by the peculiar curvature of the genital passages, which was nearer a parabola than a circle (circle of Carus). He showed that special mechanisms, as of the delivery of the head,—extension flexion,—were imperfectly described and misunderstood because not studied as parts of the change of fœtal altitude necessitated by the revolution. Revolution generally involved extension of the whole fœtal body. The various forms of revolution observed in different presentations and conditions of the fœtus were then described.

The PRESIDENT expressed his approval of the paper.

Dr. GALABIN criticised the accuracy of Dr. Duncan's description of the principles of geometry, and objected to the fœtus being likened to a viscous mass; although it was plastic to some extent, it came mechanically under the head of rigid bodies. Version illustrated this.

Dr. CHAMPNEYS pointed out the importance of accurate knowledge of mechanics in practice, for instance in the delivery of the head. The head is born by a movement of extension with advance; if the advance is forgotten and extension artificially produced, the larger fronto-occipital instead of the smaller sub-occipito-frontal circumference distends the vulva and the perinæum is unduly stretched; he was convinced that laceration often occurred from this cause. The words revolution and rotation were familiar to all, and were most useful for teaching purposes,—a wheel rotates round its axletree, the moon revolves round the earth and also rotates. Viscosity could hardly be denied in the face of the various forms of expression of more mobile parts or their retardation, and the fœtus could not therefore be regarded simply as a series of rigid levers.

Dr. MATTHEWS DUNCAN in reply endorsed Dr. Champney's remarks, and stated that the movements, as described by him, had been so described by all previous good observers, and that his descriptions were not innovations, as Dr. Galabin implied.

ACADEMY OF MEDICINE IN IRELAND.

MEDICAL SECTION.

FRIDAY, APRIL 18th, 1884.

Dr. HENRY KENNEDY in the Chair.

Progressive Muscular Atrophy and Labio-glosso-laryngeal Paralysis.

DR. J. MAGEE FINNY read a paper to show the identity of progressive muscular atrophy and progressive bulbar paralysis. He drew attention to the rarity of labio-glosso-laryngeal paralysis. Erb wrote his article in Ziemssen's Cyclopædia of Medicine from a personal knowledge of but nine cases, and he himself had met with but three cases—one while a student, and the other two the subjects of the paper. Each of these diseases occurs perfectly independently of the other. Of Erb's nine cases, six were of pure bulbar paralysis. Nevertheless, progressive bulbar paralysis was one of the commonest terminal complications of progressive muscular atrophy; and, on the other hand, any atrophic lesions might be found with or subsequent to the occurrence of bulbar disease. He did not discuss the relative merits of the myopathic or neuropathic theories of the origin of the two diseases; but he referred to the light thrown on the essential identity by the microscopic demonstrations of Charcot, and more recently Fox, of the lesion engaging the grey nuclei on the floors of the fourth ventricle and the multipolar cells of the anterior grey cornua of the cord at the same time, by the analogy of these parts as revealed by anatomy and physiology, and by the striking clinical resemblance of the symptoms. The two cases, the subject of this communication, were men of the labouring class, both from the country, one aged fifty, the other thirty-nine, who came under his care in the spring of 1882. In both the disease began without any discoverable cause, predisposing or exciting, in the tongue by impairment of speech and difficulty of deglutition; and after five or six months evidence of progressive muscular atrophy was perceived, although it was very probable that its occurrence was considerably earlier. The bulbar symptoms were extremely well marked in each, though one differed from the other by the amount of glossal atrophy and the involvement of the lips. Fibrillary movements were noticed in the tongue of both and in the lips of one. The constant dribbling of saliva, the difficulty of pressing the lips to blow smoke, or to spit, the difficulty of carrying the particles of food to the back of the mouth, were all well marked, while speech was reduced to "aye" and "no" in one patient and to a few monosyllables in the other. In both, the dental and labial letters were impossible; and in one, suffocative attacks from the food entering the larynx were frequently imminent. The amyotrophic changes were well marked in the neck and upper extremities of one, and of both arms and legs in the other. Fibrillary movements were most distinctly seen in all the paralysed muscles. Sensation and tendon reflexes were unimpaired, and there was no paralysis of the bladder or rectum. In one, treatment by barium chloride and frequent galvanism and Faradism seemed to arrest the progressive muscular atrophy, and even to restore to the deltoids the power they had lost, while the bulbar symptoms remained unaltered, though not increased. The other case was rapidly wasting, and the bulbar symptoms were worse. Both cases left hospital, and their future progress was unknown.

Dr. C. J. NIXON observed that in bulbar paralysis there was always to be found a constant lesion in the motor roots

of the nerves and the motor ganglia and the medulla. In all the *post-mortem* examinations there had been found constant trophic change in the motor roots of the nerves, whereas in 19 recorded cases of progressive muscular atrophy no change whatever was found in the motor roots, and another peculiarity was that the first sign was the atrophic condition of the muscles, while there were some cases recorded where with distinct bulbar paralysis there was no atrophy of the muscles at all. The absence of atrophy of the muscles could be explained by assuming the disease to be confined to the motor cells in the anterior grey horns, while the trophic cells in the neighbourhood had escaped the disease. He asked how Dr. Finny explained the number of cases met with by reliable observers where there had been no disease found in the cord at all in cases of progressive bulbar atrophy. Another point was as to what distinction they were able to draw between cases of progressive muscular atrophy and the acute or subacute forms of poliomyelitis. In poliomyelitis they first had paralysis and subsequently atrophy, whereas in progressive muscular atrophy they first had atrophy, and then in proportion to atrophy of the muscles they had loss of motor power. There was a great amount of evidence to show that those diseases were to a large extent hereditary.

The CHAIRMAN pointed out that there were cases recorded of local origin in which there was no disease found in the spinal marrow or the brain.

Dr. FINNY, in reply, acknowledged that Dr. Nixon had touched upon more points than he had dealt with in his communication; but he thought it was hardly time yet to come to any positive conclusion in comparing the two diseases, the number of observations on progressive muscular atrophy being much larger than that on bulbar paralysis. The microscopic examinations in the latter were very few, whereas the other disease had been the subject of general observation for many years. It was not in his power to explain the observations of Charcot as to the absence of lesions in the anterior grooves of the cord in progressive muscular atrophy. If his theory was correct, one of the essentials must be an ascending neuritis, and this passing through the muscles should show itself in the anterior roots before it reached the grey matter in the cord. There might be no lesion of the anterior cornu at all. In infantile palsy rapid inflammation or other lesion took place in the multipolar cells; whereas in muscular atrophy the same process was going on much slower and partially progressive muscular atrophy existed; but there were many cases where before the atrophy was fully confirmed they had paralysis, and that in bulbar paralysis. In Charcot's case the lung was perfectly normal, but after death the examination showed it was in a very advanced stage of fatty degeneration. The amount of atrophy was somewhat due to the nutritive nerve-cells, which must preside over those parts. As to the ætiology of the disease, so far as his knowledge went, there was little known about it. He did not agree with Dr. Nixon that hereditariness was shown to be a factor in those cases. It was not so in his cases, which he had brought forward, not to prove any special theory as to the origin of the disease, but to illustrate the close affinity existing between the two diseases.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE VIII.

METEOROLOGY.

THE number of exhibitors in this department is remarkably small, and many of the best known firms are not represented. We were especially surprised at missing the familiar name of John Browning.

The first thing that caught our eye on entering, was an ingenious form of thermometer, intended for use in churches and places of public assembly, which can be read at a distance of several yards. It is shown by Watson, of 313, High Holborn (1354), and consists of a good sized thermometer so delicately poised on a spring balance about its centre of gravity that the smallest rise or fall of the mercurial column above or below 65° F. causes it to deviate from the horizontal position, while a long index needle fixed to the upper end of the tube indicates the temperature on a boldly graduated scale in the form of an arc extending about 45° either way. The tube itself being also graduated in the ordinary way serves to show whether the mechanism is in proper working order or not. Both scales run from 32° F. to 105° F., as wide a range as is required for the purposes for which it is intended.

Mr. Denton (1357) exhibits a number of clinical and other thermometers, for which he claims that, from some peculiarity in their construction, the glass is liable to no appreciable amount of subsequent contraction. M. Desprez has found that, as a rule, clinical thermometers, if graduated soon after being filled, give at the end of the first year a reading of ·5 of a degree Fahrenheit above the truth, and that the shrinking continues for about five years when the error reaches ·8°. These of Mr. Denton having been marked at Kew before being filled, were found at the end of six months either absolutely correct or not more than ·1 or ·2 at the most in error, and no further alteration was observed after one or two years. Considering the constantly increasing demand for clinical thermometers, this is no small advantage. His lens-fronted clinical, or, as he somewhat absurdly calls them, "health" thermometers, magnify the mercurial column enormously and are extremely easy to read.

Mr. Casella (1363) and Messrs. Negretti and Zambra display rich collections of meteorological instruments of every kind, including continuously self-registering barometers, in which the curves are marked by a pencil on a revolving drum. The former for some reason does not exhibit his very ingenious and, as we thought, successful minimum thermometer, which will be known to many of our readers from the description in Professor Balfour Stewart's work on heat, in which the metallic index is dispensed with, and a lateral pyriform chamber receives the mercury as the temperature rises, while the minimum is indicated by the column of mercury in the stem. Mr. Casella has a very simple form of thermometer for announcing when any given maximum is reached. It is a horseshoe tube, the terminal dilatation of the upper arm being filled with alcohol, which, expanding, moves a long index of mercury occupying the bend and part of the tube on each side, the arms along which this index moves being graduated in opposite directions, and therefore, if the instrument be in order, indicating the same temperature. When the index has advanced in the lower arm as far as the desired maximum temperature, it comes into contact with the ends of two platinum wires, closes an electric circuit, and rings a bell. Messrs. Negretti and Zambra have a similar but more complicated set of instruments for announcing maximum and minimum temperatures alike.

Of more practical value and highly ingenious is a set of thermometers arranged by Messrs. Negretti and Zambra for automatic hourly records of temperature. The thermometers themselves are of a very peculiar construction. Just above the bulb is a twist and a constriction, and above this a lateral chamber, or pocket, into which the mercury passes, instead of rising in the stem. If the thermometer be inverted, the column breaks off at the constriction and falls into the stem, at the other end of which is a small dilatation, and the temperature is read off on the stem, which is graduated from this end towards the bulb, in fact, upside down.

In the arrangement before us, twelve such "tip up" thermometers are held by clamps moving freely on their axes, and their stems are enclosed in glass tubes which are more than counterpoises for the bulbs. The clamps are placed so low that the thermometer is only kept erect by a bent pin, against which a prolongation of the enclosing tube rests; and these pins are connected with a series of spindles and cams, themselves in electric connection with a clock. Every time the long-hand of the clock reaches XII. it presses on a small brass spring, closes the circuit, and causing the next in order of the bent pins to perform half a revolution, leaves the corresponding thermometer free to capsize and by the dropping of the mercury in its stem to leave a record of the temperature at that moment.

It will thus be easy for a single observer, by two visits

daily, to keep a record of the hourly variations of the temperature by night and day.

Mr. Negretti has turned the same form of thermometer to account for deep-sea observations, though the arrangement of revolving fans, &c., seems rather too delicate and complex to withstand the pressure at great depths. A simpler pattern without mechanism, and inverted only by the resistance of the water in being drawn up, seems more likely to work in practice.

In anemometers, barometers, &c., we did not notice anything really new.

Among the charts on the walls of this annexe is one published by the S.P.C.K., showing the mean annual rain-fall in all parts of the British Islands by different shades of colour and by contour lines as it were, iso-ombral lines we might call them.

The Meteorological Society exhibits a series of interesting charts, showing by varying shades of colour from deep and light blue, violet purple, lilac pink, and red, the monthly temperature of the sea on the coasts of Great Britain and Ireland, which might be of great use in choosing a place for sea-bathing at any given season. Generally speaking, the sea is warmer on the West Coast and colder on the East, but there are some curious seasonal variations. For instance, the sea on the West Coast of Ireland is by far the warmest from April to October, but between November and March it is cooler than the more equable Irish Channel. Again, the Devon and Cornish Coast is always warm, but that of Kent and Sussex is warmer in September and October, though cooler at any other time than that of the S.W. In winter and spring the Coast of East Kent is decidedly cold, in autumn the reverse. The coldest part of the English Coast is found at some point between Yarmouth and Scarborough, varying with the month. But great as is the annual range of temperature between Margate and Folkestone, it is exceeded by that observed in the estuary of the Severn, where the extremes of cold in winter and of heat in summer are no doubt due to the admixture of fresh water brought down from the Welsh Highlands.

In another place are a couple of sheets showing the mean temperature in different parts of the world, as well as the maxima and minima observed at a number of places from Melville Island to the Red Sea. But the list is very imperfect, and a grand opportunity has been missed of explaining to the public the illusive character of so-called *mean* temperatures, and of the importance of annual and diurnal variations in determining what is known as climate. We might venture to suggest that it is not too late to make good the omission.

Mr. Lecky, of 3, Lorton Terrace, Ladbroke Grove, shows, along with several graphic representations of the prevalence of sunshine in successive years, a couple of self-registering sunshine readers, spherical lenses which concentrate the sun's rays on strips of prepared blue paper marked for the hours and fixed to a brass arc. One of these is adapted for our own latitude, the other capable of being adjusted to any.

Other charts on the walls show the relation between temperature and the death-rate, and the prevalence of the several classes of disease.

In the garden is a small meteorological station in charge of a Swede who accompanied Baron Nordenskiold to Spitzbergen, and the late expedition sent out by our Government to Fort Ray. He showed us two records of sunshine taken by Mr. Lecky's instrument on Thursday and Friday of last week. The former indicated almost unbroken sunshine, the latter recorded but a couple of hours, and that faintly, for although the sky was nearly cloudless and the temperature higher than on the previous day, there was a "haze" which, though not concealing the body of the sun, interposed a screen sufficient to prevent the action of its rays on the paper.

City Orthopædic Hospital.—A well attended dinner, presided over by the Lord Mayor, was given in support of the funds of this hospital, at the Holborn Restaurant, on the 26th ultimo.

GENERAL CORRESPONDENCE.

VACCINATION AND SMALL-POX.

[To the Editor of the Medical Times.]

Sir,—I write partly because the facts that I am about to narrate, backed up as they are by previous occurrences of the same character, may assist those who would convince impartial or even reasonable but ignorant persons of the value of vaccination; more especially, however, because they tend to support M. Pasteur's late assertion that inoculation *after* the bite of a mad dog will prevent the occurrence of hydrophobia in the person or animal bitten.

When a medical student at the University of Edinburgh, and attending dispensary patients after my third winter session, we had an epidemic of small-pox, chiefly among the Irish in the old town. Among other patients I was called to see three Irishmen, each affected with small-pox, each married, and each, with his wife and a newly-born infant in a cradle, living in one room entered from a narrow wynd and a steep stair. On my second visit to each I vaccinated these infants, but in all three symptoms of small-pox showed themselves immediately after. In one the vaccine puncture showed symptoms of having taken, ran on to the second or third day thereafter, then stopped till the small-pox, which now showed itself unmistakably, had run its course, and then taking up its running ran its natural course, even including its first days, to the normal number of days. In a second case the vaccine and the small-pox ran their course side by side, or in other words contemporaneously. The course of the third case differed from both, but I have now but an imperfect remembrance of it.

In all three cases however, *the small-pox was modified*, there was no exacerbation on the eighth day, and eventually all three bore good vaccination marks, while there was not the slightest small-pox scar to be found on any part of their bodies.

I am, Sir, yours, &c.,
BRINSLEY NICHOLSON, M.D.,
Deputy Inspector General (H.P.)

MEDICAL NEWS.

THE INTERNATIONAL OTOLOGICAL CONGRESS AT BASLE.

The arrangements for the Otological Congress, which will be held at Basle from the 1st to the 4th of September next, are now complete, and the programme will shortly be published. The Congress will be opened at 10 o'clock on September 1st by an address from the President of the last Congress, Dr. Sapolini, of Milan, which will be followed by an address from the President of the Organising Committee, Professor Burckhardt-Merian, and by the election of the officers of the Congress. The work of the Congress is divided under three heads, in connection with each of which several papers will be read. The following communications have already been announced.

(1) *Normal and Pathological Anatomy.*—Papers will be communicated by Professor His on the development of the external ear; by Professor Politzer, on the normal and pathological histology of the ear, and on the condition of the cochlea in the deafness of leucocythæmia; by Professor Moos, of Heidelberg, on the lymphatics of the tympanum; on lacunar caries of the neck of the malleus; and on villous growths on the internal wall of the tympanum; by Dr. Brünner, of Zurich, histological specimens, illustrating the normal anatomy of the ear; by Dr. Bezold, of Munich, anatomical specimens of the ear obtained by corrosion; by Professor Kuhn, of Strasburg, on the anatomy of the internal ear in vertebrates; by Professor Burckhardt-Merian, specimens illustrating the normal anatomy of the ear.

(2) *Physiology, Methods of Examination.*—Communications will be presented by Professor Moos, on the cause and diagnosis of auditory disturbance in cases of cerebral tumour;

the diagnostic value of the musical pitch test; by Dr. Jellée, of Paris, on the symptomological value of the musical pitch test applied to the vertex; by Dr. Löwenberg, on a new method of examining the propagation of sound in the external ear; by Professor Burckhardt-Merian, on the comparative value of the different methods of examining the auditory function. Dr. Merian will also show a new ear trumpet, and Professor Cozzolino, of Naples, will show a very simple and sensitive electro-microphonic audiometer.

(3) *Pathology and Therapeutics.*—The following papers will be read: by Dr. Grazzi, of Florence, on the parasites of the ear, with microscopic demonstrations; by Dr. Ménière, of Paris, on a case of chancroid of the middle portion of the external meatus, rapidly healing; and on contractions of the external meatus, and their influence on hearing; by Dr. Boboni, of San Remo, on the diseases of the ear produced by sea-bathing; by Professor Cozzolino, of Naples, on the anatomical classification of the varieties of deafness according to their pathogenesis; by Dr. Noquet, of Lille, on the reflex phenomena produced by chronic purulent otitis of the middle ear; by Dr. Guye, of Amsterdam, on the causes of ear affections in measles and scarlatina; by Professor Politzer, on the operative treatment of deafness arising from old-standing purulent otitis of the middle ear; by Dr. Boucheron, of Paris, on deaf-mutism from otopiesis; by Dr. Sapolini, on a cause of temporary or permanent hyperacousia and dysecæa, cophosis, treatment; by Professor Longhi, of Milan, on sulpho-carbolate of zinc in purulent otitis; by Dr. Bendelack Hewetson, of Leeds, on the injection of glycerine of carbolic acid (B.P.) into the external meatus for the cure of otalgia and inflammation of the tympanum; and on the therapeutic results daily of a nasal douche of concentrated solution of carbonate of soda in catarrhal affections of the middle ear; by Dr. Kirschner, of Wurtzburg, or the ear affections of diabetes; by Professor Longhi, of Milan, two cases of chronic affection of the labyrinth following jaundice and cold injections into the external meatus; by Dr. Hartmann, of Berlin, on the anatomical relations to be considered in trephining the mastoid process; by Dr. Morpurgo, of Trieste, ought operations on the mastoid process to be undertaken early or late?; by Dr. Novaro, of Turin, on trephining the mastoid process; by Professor Cozzolino, on the use of the galvano-cautery in affections of the ear; by Dr. Löwenberg, on the nature and treatment of ozæna; by Dr. Thomas Barr, of Glasgow, on adenoid growths in the nasal-pharyngeal cavity. Dr. Siebenmann, of Klosters, will show preparations of the parasitic fungi of the external ear, and Dr. Moresco a syringe for injecting solutions into the tympanum.

University of Durham.—The following were the successful candidates at the examinations held in the Easter Term, 1884:—

Degree of Doctor in Medicine, for Practitioners of fifteen years' standing—

William Edmund Cant, F.R.C.S., L.R.C.P.; William Henry Dawson, M.R.C.S., L.S.A.; Edward Walford, M.R.C.S., L.S.A.; John Rostron Woodcock, F.R.C.S.; Samuel Woodman, F.R.C.S., L.S.A., L.R.C.P.

Degree of Doctor in Medicine—

William Crump Beatley, M.B., M.R.C.S., L.S.A.; Christopher Vise, M.B., M.R.C.S.

Degree of Master in Surgery—

Frederick William Cock, M.R.C.S.; Charles Egerton Jennings, F.R.C.S., L.S.A.; Joseph Armstrong Hutchinson, M.B., M.R.C.S.; Hugh Rayner, M.R.C.S.; Arthur Walton Rowe, M.R.C.S.; John Valentine Salvage, M.R.C.S.

Degree of Bachelor in Medicine. First-class Honours (in order of merit)—

Frederick William Cock, M.R.C.S., University College; Arthur Walton Rowe, M.R.C.S., St. Mary's Hospital.

Second-class Honours (in order of merit)—

Hugh Rayner, M.R.C.S., St. Bartholomew's Hospital; Cecil Morgan Hendriks, M.R.C.S., University College; William Rice Edwards, M.R.C.S., London Hospital.

Pass List (in alphabetical order)—

Frederick Bryan, St. Thomas' Hospital; Clement Cornelius Caleb, King's College; Arthur Willan Dawson, Liverpool Royal Infirmary, and King's College; Henry William Dixon, Durham College of Medicine; Francis Washington Everard Hare, M.R.C.S., St. Thomas' and St. Mary's; Charles Egerton Jennings, F.R.C.S., L.S.A., London Hospital; Joseph Smith Revely, Durham College of Medicine; Charles Frederick Rumboll, M.R.C.S., St. Bartholomew's, and Durham College of Medicine; John Valentine Salvage, M.R.C.S., Guy's Hospital.

University of Dublin.—At the Summer Commencements of Trinity Term, held on Thursday, June 26th, 1884, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred by the University Caput in presence of the Senate.

Baccalaurei in Chirurgiâ:—

Henricus Theodorus Bewley, Guilelmus Bullen Day, Johannes Samuel Fenton, Nicolaus Carolus Ferguson, Guilelmus Maxwell Hewson, Samuel Hickson, Hugo Nugent Kenny, Robertus Morrow, Thomas Parr, Georgius Guilelmus Powell, Guilelmus Travers Swan, Ludovicus Werner, Reginaldus Joscelyn Windle.

Baccalaurei in Medicinâ:—

Henricus Theodorus Bewley, Guilelmus Bullen Day, Henricus A. Ellis, Johannes Samuel Fenton, Nicolaus Carolus Ferguson, Guilelmus Grandy, Guilelmus Maxwell Hewson, Guilelmus Lucy Hickey, Samuel Hickson, Hugo Nugent Kenny, Josephus Vincent Manning, Robertus Morrow, Daniel Robertus O'Sullivan, Thomas Parr, Georgius Guilelmus Powell, Guilelmus Robertus Roper, Georgius Scarr, Henricus Shackleton, Telford Smith, Guilelmus Travers Swan, Ludovicus Werner.

Doctores in Medicinâ:—

Guilelmus Thomas Briscoe, Jacobus Chute, Johannes Loftus Cuppaidge, Fredericus Conway Dwyer, Thomas Carson Fisher, Thomas Carolus Moore, Carolus Thomas Poland, Guilelmus Robertus Roper, Henricus Shackleton.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners, on the 30th ultimo, 1st and 2nd instant, and when eligible will be admitted to the pass examination, viz.:—

R. H. W. Johnston, J. W. Pare, A. W. Hughes, Edwin Morton, Edmund Antrobus, W. M. Eaton, and E. L. Lees, Students of the University of Edinburgh; J. P. Cavenagh and William Hartford, of the Dublin School of Medicine; Julius Coronel, of Amsterdam; S. P. Alexander, of the University of Glasgow; C. E. Gooding, J. B. Loring, and G. B. Rowell, of McGill College, Montreal; Charles Whisken, H. C. Sugden, J. R. S. Park, J. P. J. Gornal, F. C. Andrew, W. H. Haslop, J. R. M. Brennan, William Armstroug, and James Elias, of the Manchester School of Medicine; John Bailey, E. M. Quinby, C. L. Warke, and Randle Leigh, of the Liverpool Infirmary; R. E. Johnson, J. W. Holmes, and William Dunbar, of the Sheffield School of Medicine; C. G. May, of the University of Cambridge; F. W. Ramsay, Newcastle-upon-Tyne School of Medicine; C. G. Hutchinson, W. J. C. B. Pitt, and W. H. Date, of the Birmingham School of Medicine; T. H. Godfrey, of St. Thomas's Hospital.

Thirty-three candidates were referred for three months, and four for six months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 26th, 1884:—

Edgar Beaumont, 30, Gipsy Hill, S.E.; Frank Hinds, Gondhurst, Kent; Robert Lawson, Unthank, St. Andrew's, Fife, N.B.; Jenkyn Lewis, Llanon, Cardiganshire; William Thomas Rees, Llauboidy, Carmarthenshire; Walter Oliver Steinthal, 14, John Street, Hampstead.

At the recent Examination for Prizes in Botany given annually to Medical Students by the Society of Apothecaries, the successful candidates were adjudged as follows:—

(1) Ernest Henry Starling, of Guy's Hospital, (A Gold Medal)
(2) William Beecroft Bottomley, of St. Mary's Hospital, (A Silver Medal and Books).

Naval Medical Service.—Fleet-Surgeon E. T. Mortimer has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets.

The City Coronership.—Mr. S. F. Langham, the recently elected coroner for the city of London, has appointed Mr. Wynne E. Baxter, C.C., solicitor, to be his deputy, and this selection has been officially approved by the Lord Chancellor.

University of Dublin (*School of Physic in Ireland*).—The Provost and Senior Fellows of Trinity College have awarded the Surgical Travelling Prize, value 100*l.*, to Charles R. Kilkelly, and have granted an extra prize of 25*l.* to Henry J. Bewley, in consequence of his superior answering.

Adelaide Hospital, Dublin.—On Saturday, June 28th, the "Hudson Scholarship" and other prizes were presented to the successful candidates at the midsummer examination in the lecture theatre of the institution. The Right Hon. Judge Warren presided. After an interesting address from Dr. Head, Physician to the Hospital, the chairman presented a gold medal and a cheque for 30*l.* to Mr. H. J. Bewley, the winner of the Hudson Scholarship;

the silver medal and a cheque for 10*l.* to Mr. W. B. Day; the Medical Prize to Mr. J. D. Wynne, and the Surgical Prize to Mr. Healy.

Sanitary Institute of Great Britain.—The anniversary meeting of the institute will be held in the theatre of the Royal Institution on Thursday, July 10th, at 3 p.m. The chair will be taken by the Right Hon. Earl Fortescue, and an address will be delivered by H. C. Bartlett, Ph D., F.C.S., entitled, "Some of the Present Aspects of Practical Sanitation," and the medals and certificates awarded to the successful exhibitors at the Exhibition at Glasgow, in 1883, will be presented. The anniversary dinner will take place at 7 o'clock on the evening of the same day, at the Holborn Restaurant, Dr. Alfred Carpenter in the chair.

New Infirmary at Fulham.—On the 26th ultimo Sir Charles Dilke opened the large new infirmary which has lately been added to the Fulham workhouse. The infirmary will accommodate 446 patients, and its total cost (without furniture) will amount to 51,422*l.* The building comprises a central block, in which are placed the whole of the official and administrative departments, with dwelling accommodation for the staff. The pavilions for males and females are to the right and left of the central block respectively. These main blocks are three storeys in height, and consist of wards 96 feet long and 24 feet wide, containing 32 beds each, with the necessary offices attached. The appliances for ventilation, lighting, water supply and security from fire, and sanitation and drainage, have all been most carefully considered and carried out.

Robert Koch and the Prevention of Cholera.—The Berlin Correspondent of the *Philadelphia Medical News*, June 7, comments as follows upon this passage of Koch's speech on returning thanks at the Berlin banquet:—"He was well aware that the discovery (of the cholera bacillus) would not contribute very much to the improvement of the therapeutics, but he believed that his experience in Egypt and India would allow him to make some practical propositions concerning the prevention of cholera, and that, perhaps, if only the Governments concerned would agree upon his plan, it might be possible to restrict the disease to its mother-land—India." Words of such vast significance, on an official occasion, from the lips of a man of Robert Koch's reserve and modesty, deserve our highest attention. Careful readers of the reports sent from Egypt and India will remember a somewhat dark and obviously abbreviated passage about the mode of cholera importation, studied in the quarantine harbours. This passage, together with the fact that the third report was not published at all, allows the conclusion that the German Government is in possession of most important positive propositions about the effective prevention of cholera importation, which are not yet ripe for publication.

APPOINTMENTS.

Fourns, Newcome Whitelaw, M.D. Brussels, L.R.C.P. Edin., M.R.C.S.—Anæsthetist to St. John's Hospital for Diseases of the Skin.

Davies, J. T., L.R.C.P., M.R.C.S.—Resident Medical Officer to the Denbighshire Infirmary, *vice* Williams, resigned.

Faulkner, Herbret, M.R.C.S. Eng., L.R.C.P. Edin., and L.M.—Medical Officer to the Seventh District, Depwade Union, *vice* Mr. Heynes Hardwicke, resigned.

Gubb, A. S., L.S.A.—Resident Obstetric Assistant to the Westminster Hospital.

Hull, Edward Gordon, M.D., and Bach. Surg. Dub.—Medical Officer to the Withern District, South Union, *vice* Dr. James Hurley, resigned.

Jolly, Samuel Aird, L.R.C.P., L.R.C.S. Edin., L.C. Phys. and Surgs. Glasgow, L.S.A. Lond., L.M. Edin. and Glasgow.—Medical Officer to the Puddletown District, Dorchester Union, *vice* Mr. Robert Slade, resigned.

Lawrence, S. C., M.R.C.S., L.R.C.P.—House Physician to the Queen's Hospital, Birmingham.

Maples, Reginald, M.R.C.S., L.R.C.P., L.S.A., and L.M.—Medical Officer to the Workhouse, and the Kingsclere District, Kingsclere Union, *vice* Mr. Septimus Edwards, resigned.

Meeson, Alfred, L.R.C.S. Edin., L.S.A. Lond.—Medical Officer to the Second District, Township of Toxteth Park, *vice* Mr. Thomas Fox Morrish.

Pairman, Thomas Wyld, L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer to the Fifth District, Williton Union, *vice* Mr. Jonathan Crocker, resigned.

Tomkins, H. H., M.R.C.S.—Assistant House Surgeon to the Infirmary for Children, Liverpool.

Traill, M. W., L.R.C.P., M.R.C.S.—Honorary Surgeon to the Sydney Hospital for Sick Children.

Williams, William Montague Venables, L.R.C.P. and L.R.C.S. Edin.—Medical Officer to the Prees District, *vice* Owen Westwood, resigned.

VACANCIES.

County and County of the Borough of Carmarthen Infirmary.—House Surgeon. Salary £100 per annum, with board, lodging, fire and light. Candidates must be registered to practice both in medicine and surgery, unmarried, and free from the care of a family. They must have a knowledge of the Welsh language, and will be required to enter into an agreement not to practice in the County of the Borough of Carmarthen for a period of five years. Applications, with testimonials, as to ability and character, to be sent to Mr. H. Howells, 11, Morley Street, Carmarthen, on or before July 12th.

County Lunatic Asylum, Snenton, Nottingham. — Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing. Candidates must be registered under the Medical Act, unmarried, and they must produce testimonials of good moral character. Applications stating age with testimonials, addressed to the Chairman of the Committee of Visitors, to be sent under seal to Samuel Bunting, clerk, on or before July 9th. The election will take place on July 17th.

Cumberland Infirmary, Carlisle. — Assistant house-surgeon. Salary £40 per annum, with board, lodging and washing. Applications, with testimonials, to be sent in to the committee, not later than July 8th.

Liverpool Royal Southern Hospital.—Second and third house-surgeons. Salaries, 80 and 60 guineas respectively, with board, &c. Candidates must be doubly qualified and registered. Applications and testimonials to be addressed to the Chairman of the Medical Board, not later than July 10th.

Llandilofawr Union.—Medical Officer to the Western District, in succession to Mr. W. L. Jones, deceased. Area, 2,351 acres. Population, 2,311. Salary, £27 per annum.

Society of Apothecaries of London.—Examiner in Medicine. (*For particulars see Advertisement.*)

Stone Union.—Medical Officer to the Stone District and the Workhouse, in succession to Mr. G. H. Hopkins, deceased. Area, 20,373 acres. Population, 9,768. Salary, £25 per annum. Salary for Workhouse included in that for the District.

Toxteth Park Township.—Assistant Medical Officer to the Workhouse, in succession to Mr. Alfred Melson, resigned.

DEATHS.

Parsons, A. D., L.R.C.P., M.R.C.S., at Matham Dawlish, on June 30th, aged 36.

NOTES, QUERIES, AND REPLIES.

NOTES FROM BRAZIL.

[TO THE EDITOR OF THE MEDICAL TIMES.]

Sir,—I write on May 30, having before me the Number of May 3—received on the 25th. When I came to Brazil there was a monthly post from Europe, and here, in the then back country, the latest news was of 75 days on an average. Brazil is now so cruelly victimised by *Progress and Civilisation*, that any one with my ideas and family traditions would be more at ease in many secluded corners of Europe. We even have the *Telephone* in full activity here, *but not in my house*. As an Edinburgh M.D. I feel there is something antagonistic to the traditions of a *Physician's* gravity and status, in his being at the disposition of this most democratic form of communication. What I want to say is, that up to the date mentioned no one thought proper to notice my request in the Notes and Queries, *Medical Times* of March 29th, as to the harmlessness or danger resulting from the reuniting in the same formula or prescription of cherry laurel water with bicarbonate of soda or potash. I wish much to obtain an authoritative statement on the subject, owing to the assertion of several physicians here to the effect of the danger of such a combination. I received from Messrs. Ledger, Smith, & Co. a polite note, repeating what the same gentlemen published in the *Medical Times* of April 5th, and accompanying a prospectus of the "Medical Digest."

The newspapers have just announced the death, in the Province of Goyar, of *Senhorinha Gomes de Jesus*, at the age of 154 years. Though there, perhaps, is no irrefutable authentic evidence of the exact *algarism* or figures, the statement cannot be *à priori* rejected, when one considers the frequency in this country of persons attaining the age of 110, 120, 130 years. Centenarians are common in some districts, and formerly were more so. It is worthy of note that many centenarians die in consequence of falls. Reading an article on *Beriberi*, lately published in the *Medical Times*, I see that it is mentioned that Sir Joseph Fayrer suggested the possible parasitic nature of the disease. I, therefore, avail myself of this opportunity to announce that the *Microbe* of Beriberi has been found and demonstrated in the Physiological Laboratory attached to the National Museum in Rio de Janeiro, by Dr. John Baptist de Lacerda, the same who introduced the permanganate of potash as a remedy in snake-bite. It is alleged that this *Microbe* is identified with a microbe found in rice. This disease causes great mortality in the Northern Provinces of Brazil, and is unfortunately coming (slowly) southward. In order to give an idea of the state of Pharmacy in this country (where it is rigorously separated from the Practice of Medicine), I enclose an edital announcing the sale of the stock of a

Pharmacy in Rio de Janeiro, under execution for debt. It is probable that at the time of seizure the stock was much exhausted. By the name of the creditor it would seem that he is some positive, matter-of-fact Englishman.

A few days ago there died of *Morphœa* a man whom, about three years, I treated successfully for *Tetanus*. Is it not reasonable to suppose that the Leprosy was the consequence of the violent perturbation of the nervous centres which accompanied the Tetanus? Is not the case favourable to the idea (for me a truth) of the cerebral origin of Leprosy?

I am, Sir, yours &c.,

RICHARD GUMBLETON DAUNT, M.D. Edin.

Campinos, S. Paulo, Brazil.

Dr. Thompson, Launceston, Tasmania.—Letter and enclosure received.

COMMUNICATIONS RECEIVED—

Messrs. ADAMS & FRANCIS, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. CHATTO, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE REGISTRAR-GENERAL FOR ENGLAND, London; THE HON. SECRETARY OF THE TRAINED NURSES' ANNUITY FUND, London; THE SECRETARY OF THE UNIVERSITY COLLEGE SCHOOL OF MEDICINE, Durham; Mr. HAY Hull; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Dr. MITCHELL BRUCE, London; Dr. H. CAMPBELL POPE, London; OUR EDINBURGH CORRESPONDENT; OUR DUBLIN CORRESPONDENT; OUR ABERDEEN CORRESPONDENT; Dr. WILLOUGHBY, London; Messrs. MOIR & SON, LIMITED, London; Dr. HARDWICKE, Sheffield; Mr. A. J. HARVEY, London; OUR PARIS CORRESPONDENT; Dr. GAIRDNER, Glasgow; Mr. JONATHAN HUTCHINSON, F.R.S., London; Dr. GEO. HARLEY, F.R.S., London; Sir SPENCER WELLS, Bart., London; Dr. LIONEL BEALE, F.R.S., London; Mr. H. H. CLUTTON, London; Mr. VANDYKE BROWNE, Reading; Dr. KRIEKENBECK, Ceylon; Dr. PHILIPSON, Newcastle-on-Tyne; Mr. ARTHUR G. GODSON, London; THE EDITOR OF THE BRITISH MEDICAL JOURNAL; DEPUTY INSPECTOR-GENERAL NICHOLSON, South Norwood; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. WYNTER BLYTH, London; Dr. HEBB, London; Dr. CLIFFORD BEALE, London; Dr. WOLFE, Glasgow; Dr. DONKIN, London; Dr. ATTFIELD, London; Mr. CANTLIE, London; Messrs. LOEFLUND & Co., London; THE SECRETARY OF THE LONDON SOCIETY FOR THE ABOLITION OF COMPULSORY VACCINATION, London; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Mr. T. M. STONE, London; Mr. JOHN ABBEY, Oxford; Mr. POWELL, London; Dr. SHARKEY, London; Mr. MITCHELL BANKS, Kissengen; Dr. CURNOW, London.

BOOKS RECEIVED—

Leamington as a Health Resort — Braithwaite's Retrospect of Medicine, January to June, 1884—Report on the Sanitary Condition of the Hackney District, for 1883—Scientific Basis of Electicism in Medicine, by C. A. F. Lindorme, Ph.D., M.D.—Report of the Health of Liverpool, during the year 1883—The Encyclopædic Dictionary, Part 6—The Alps and how to see them, by J. E. Muddock—International Health Exhibition, Water and Water Supplies, and Unfermented Beverages, by John Attfield, Ph.D., F.R.S., &c.—The Sanitary Chronicles of the Parish of St. Marylebone, during May 1884—Report of the Rotunda Hospital, for the year ending November 3, 1883—On the Origin of Anæmic Murmurs, by J. K. Fowler, M.A., M.D.—Speech by the Right Hon. Sir Lyon Playfair, K.C.B., on the Medical Act Amendment Bill—Lectures on General Nursing, by Eva C. E. Lückes—West African Hygiene, by Chas. Scovell Grant, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal—Louisville Medical News — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften —Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—Société Médicale—The Berkshire Bell—The Australian Medical Journal—Revista de Medicina—El Ensayo Medico—The Therapeutic Gazette—The Boy's Own Paper—The Girl's Own Paper—The Leisure Hour—The Sunday at Home—Friendly Greetings—The Journal of Mental Science—The Canada Medical and Surgical Journal — National Anti-Compulsory Vaccination Reporter—The Veterinarian—The Polyclinic—Belfast Evening Telegraph—The Birmingham Medical Review—Archives Générales de Médecine—The Glasgow Medical Journal—Edinburgh Medical Journal—The Analyst—El Repertorio Medico—The American Journal of Neurology, &c. — The Bristol Medico-Chirurgical Journal.

APPOINTMENTS FOR THE WEEK.

Friday, July 4 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—At 8 p.m., Living and Card Specimens:—Mr. S. Snell, "Bony Tumour of Conjunctiva;" Dr. Walter Edmunds, "Drawing of Optic Disc from a Case of Tumour of Brain;" Dr. Brailey, "A Case of Sympathetic Neuro-retinitis;" Mr. Anderson Critchett, Operation Cases (1) "Conical Cornea," (2) "Tattooing and Iridectomy for Leucoma;" Messrs. A. Critchett and Juler, "Result of Strabismus Operation." At 8.30 p.m., Communications:—Mr. S. Snell, (1) "Some observations on Miner's Nystagmus," (2) "On Certain Congenital Defects of the Eye;" Dr. Walter Edmunds, and Mr. J. B. Lawford, "An Analysis of Cases of Intra-ocular Tumour with respect to the existence of Optic Neuritis;" Mr. Spencer Watson, "Severe Concussion of the Brain followed by temporary Blindness with Anosmia;" Mr. Nettleship, "Case of Hæmorrhagic Glaucoma, Pseudo-glioma, Death from Meningitis."

Saturday, July 5.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, July 7.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, July 8.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, July 9.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m. London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, July 10.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES

AND GAZETTE.

No. 1776. LONDON, SATURDAY, JULY 12, 1884.

Contents.

CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

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

Physician to the Hospital.

Lecture III.

Catarrhal conditions of the Respiratory Passages.—Acute and Chronic Laryngeal Catarrh.—Acute Bronchial Catarrh.

Gentlemen, — The remarks I made in my last lecture with regard to the management and prophylactic treatment of persons who are pre-disposed to attacks of acute nasal catarrh, apply with equal force to those who are prone to suffer from attacks of acute laryngeal catarrh. The treatment appropriate to the acute attack itself is also by no means dissimilar. In the early stage the advantage of small doses of opium or morphine in allaying irritation and relieving the cough is most marked. It is well to combine them with small doses of ipecacuanha or tartarised antimony. The administration of an eighth of a grain of acetate of morphia with one twelfth of a grain of tartarised antimony every four or five hours; or 4 or 5 grains of the compound ipecacuanha powder every five or six hours, will usually relieve most of the distressing symptoms—the tickling cough, the soreness in the larynx itself, the difficulty in swallowing sometimes present, and the hoarseness or impairment of voice. Warm alkaline drinks are also of much value in thinning the tenacious adhesive mucus which often hangs about the glottis and upper part of the larynx, and is difficult of expulsion; for this purpose a third of a tumblerful of Ems, or Bourboule, or Apollinaris Water, to which a tablespoonful or two of hot milk or whey may be added, should be drunk every two or three hours.

When it is not easy to get these mineral waters you can prescribe the following mixture, which answers quite as well:—

℞ Sodæ Bi-carbonatis, ʒ j.
Sodii Chloridi, gr. xviii.
Spr. Chloroformi, ℥ xxx.
Aquæ Anisi ad ʒ vj.

M. ft. mist.

Of this mixture two tablespoonfuls should be taken every two or three hours with two tablespoonfuls of hot water or milk.

Counter-irritation and warmth in the shape of a small poultice of mustard and linseed applied over the larynx are of great service. Some, however, prefer cold compresses

It is of the greatest importance to avoid all causes of further irritation. The patient should therefore be kept to the house, and in one uniform temperature.

All exercise of the voice should be forbidden, and the desire to cough should be resisted as much as possible. Violent efforts at coughing irritate and injure the inflamed mucous membrane covering the glottis.

The inhalation of the vapour of hot water or of infusions of demulcent herbs or warm alkaline sprays is useful when the cough is hard and dry and there is difficulty in softening the tenacious and scanty mucous secretions. Direct local applications are rarely advisable in cases of acute catarrhal laryngitis, but they are of great service if the catarrhal condition persists and the case becomes chronic.

Acute laryngeal catarrh is usually a mild and easily managed disease, but it often occurs with troublesome frequency in persons who have to use the voice much in singing or speaking, and it is then more difficult to treat, and tends to become chronic.

But acute laryngitis in young children is often a grave malady on account of the attacks of nocturnal dyspnœa (laryngismus stridulus, or false croup) which frequently accompany it. These attacks often assume a very alarming aspect and are constantly mistaken for attacks of true croup, especially by anxious parents.

A young child becomes affected with what is apparently a mild catarrhal affection, attended with a little sneezing and coughing, but without any dyspnœa or other alarming symptom, but in the middle of the night it wakes up with an alarming attack of dyspnœa accompanied with loud stridulous inspiration, a dry hacking cough, and hoarseness of voice. The dyspnœa is often intense and is attended with great restlessness and anxiety. Careful inspection of the throat will satisfy you that the attack is not due to any membranous or diphtheritic exudation. It is due to the fact that the larynx and glottis in young children are small and imperfectly developed, and the catarrhal swelling of the mucous membrane, together, probably, with the accumulation during sleep of dry tenacious mucus on the margins of the glottis, are sufficient to cause considerable laryngeal stenosis and inspiratory obstruction. In some cases spasmodic contraction of the laryngeal muscles no doubt contribute to the dyspnœa. As a rule, these attacks of dyspnœa pass off after a longer or shorter interval and are unattended by danger; but the attacks have such a serious and alarming appearance, and the anxiety of the little patient's relatives is generally so great that some active treatment is urgently demanded to allay their fears and is usually rewarded with much apparent success.

If the child is a vigorous one no harm, and possibly some good, may be done by the application of a leech, or perhaps two, over the manubrium sterni. It is a proceeding which usually commends itself to the parents, and it is a mistake to suppose that the abstraction of a small amount of blood in such cases can do any harm. Hot sponges applied to the laryngeal region are useful; and while some think highly of a few small and rapidly repeated doses of aconite in these cases, others think better of emetic doses of ipecacuanha and tartarised antimony. Certainly a sixth of a grain of tartarised antimony with 30 or 40 minims of ipecacuanha wine, mixed with a teaspoonful of warm water, will cut such attacks short in a striking manner.

If, however, there is œdema of the glottis, which cannot be thus relieved, and scarification is impossible or fails to be efficacious, while the dyspnœa continues to be alarming, then tracheotomy must be performed.

Attacks such as these are usually limited to childhood; but it does occasionally happen that œdema of the glottis suddenly sets in in the course of an acute laryngitis in the adult. In such cases, if the dyspnœa is alarming and the laryngeal stenosis cannot be overcome by scarification, no time should be lost, but recourse had speedily to tracheotomy. Happily these cases in adults are very rare.

We have in the next place to consider the treatment of *chronic laryngeal catarrh.*

Repeated and neglected attacks of acute laryngeal catarrh lead to the establishment of a chronic catarrhal condition of the larynx, which is often tedious and difficult of cure. It is often brought on by overtaxing the vocal organs in public speaking, singing, &c., so that it is common to find this affection amongst clergymen, public singers, and actors.

It is also, in some cases, due to an extension of a catarrhal condition from the pharyngeal mucous membrane, as in drunkards, and inveterate consumers of tobacco. The hoarse voice of drunkards is well known. It also forms a part of the morbid changes which affect the larynx in phthisis and syphilis. We shall here only consider briefly the treatment of the simple form of chronic laryngeal catarrh, characterised by three prominent symptoms—hoarseness, cough, and expectoration.

The treatment of this troublesome affection requires, first of all, the removal of the exciting cause. Absolute rest of the organ must be insisted upon in the case of public speakers, actors, and singers, and the advantage they often derive from a few weeks' residence and treatment at such spas as Les Eaux Bonnes or Mont Dore probably depends as much, if not more, on the enforced repose and the healthiness of the out of door life, in pure tonic air, they lead there than on the use of the very feebly mineralized waters of those springs.

Local applications are mainly to be relied upon in the treatment of this disease. These are applied to the larynx by the physician himself, usually by means of a brush and with the help of the laryngoscope.

Various astringent remedies are employed for this purpose, and each physician usually has his favourite remedy. Ziemssen extols the use of strong solutions of nitrate of silver, 16 grains and upwards to the ounce, and they are, doubtless, amongst the most efficacious remedies: the good effect lasts much longer than that of milder astringents, so that an application once a week or once a fortnight will suffice. Others prefer the chloride of zinc (20 grains to the ounce) others chloride of iron (20 grains to the ounce), alum (10 grains to the ounce), tannin (10 grains to the ounce), and so on.

In the intervals of these applications the use of astringent or alkaline sprays may be beneficial. A Siegle's steam spray producer is the best apparatus for their production and application. As an astringent, a solution of tannin, 5 grains to the ounce, is perhaps the best. The spray should be applied twice a day for about five minutes each time.

In cases where the mucus secretion is scanty and tenacious and difficult of removal from the mucous membrane and vocal cords, warm alkaline sprays are of much value. A solution of carbonate of soda and common salt, about 5 grains of each to the ounce, is one of the best.

Three or four ounces of Ems or Bourboule water, drunk with a little hot milk, night and morning, will also be found useful in promoting the solution and expulsion of dry, inspissated mucus.

From the number of priests, singers, and actors with laryngeal catarrh one finds frequenting the springs of Mont Dore and La Bourboule, and also the sulphur springs of Eaux Bonnes and Cauterets in the Pyrenees, we may conclude that they derive benefit either from these waters, or from the course of life prescribed for them at those places.

We now pass on to the consideration of the treatment of *catarrhal inflammation of the bronchial mucous membrane* in its acute and chronic forms.

It is extremely important, especially when a ten-

dency to bronchial catarrh shows itself in young children, or in persons advanced in life, or indeed at almost any period, to adopt careful prophylactic measures.

In the case of young children, not only should they be carefully guarded against exposure to chill, to cold currents of air and to rapid and great changes of temperature, but every opportunity should also be taken to brace and harden them so as to diminish the morbid sensitiveness of surface upon which this liability to catarrhal attacks depends. This must, of course, be done with sound judgment and great care. In the warm season cold affusion, cold douching or sponging should be cautiously practised, together with vigorous friction of the surface; and sea water should be employed for this purpose when practicable.

Abundant exercise in the open air, warmly and suitably clad, with flannel next the skin, is of great use also. But exposure on raw, cold, windy days must be especially guarded against, particularly with very young children. Draughty apartments are also to be avoided; and the same remark applies to churches and places of amusement. Many a fatal bronchial catarrh has been acquired in cold, damp, draughty churches.

The general nutrition of young children with this predisposition must also be carefully looked to, especially if there is any tendency to scrofula or rickets, and it is in such cases that the tonic influence of the phosphatic salts of lime and iron is particularly noticeable. Parrish's chemical food has, justly, obtained a wide renown in such conditions.

When possible, residence in a dry or an equable warm climate should be adopted, and cod liver oil should be given in scrofulous cases.

With old people great caution is necessary in protecting them from exposure to changes of temperature, to draughts, to cold, damp air, and from residence in cold, damp localities. They should pass the winter, when possible, in a warm, equable, sunny climate, or if this is not possible, such persons should be content during the bad weather of our British winter and spring to remain in a set of apartments kept at a uniform temperature.

Prophylaxis by means of suitable climatic and general hygienic conditions of life forms a very essential part of the management of these cases.

The treatment of acute bronchial catarrh or acute bronchitis will, necessarily, have to be modified according to the particular form of the malady with which we may have to deal, and according also to the state of the person attacked.

Acute bronchial catarrh may and often does occur as a comparatively slight malady, unattended with any risk or danger if ordinary care and caution in its management be adopted. On the other hand, it also often occurs as one of the most serious and dangerous maladies, frequently fatal, and taxing all our skill in its treatment. Much of its seriousness depends on the age and vigour of the patient attacked, and on the extent of the bronchial surface involved. An attack of acute bronchial catarrh may be limited entirely to the larger division of the bronchi and show no disposition to spread beyond them. These are the light cases, but an attack of acute bronchial catarrh may also be diffused over a wide extent of the bronchial surface and extend even to the finest ramifications of the bronchial tubes. When this is the case, it is, as you know, termed capillary bronchitis; these are cases of the gravest import. Such attacks prove very fatal to children and to feeble and aged persons, and are of great gravity even when affecting robust adults.

Let us in the first place consider the treatment appropriate to a case of acute bronchial catarrh in a previously healthy adult, and limited to the larger bronchi. Such an attack will usually be attended with a slight degree of fever; there will be more or less cough, usually at first dry (that is, without much expectoration) and painful, attended with a feeling of soreness or rawness referred to the upper sternal region. Dry, sonorous, rhonchal and sibilant *râles* will be heard over both sides of the chest, loudest over the upper part. Usually there is but little dyspnœa, unless the attack should be complicated with some spasmodic asthma. Such attacks are popularly spoken of as "severe colds on the chest."

The patient should be kept in bed in a room, the temperature of which should not be lower than 60° F. nor higher than 65° F. The air of the room should be kept moist and unirritating by causing the steam of hot water to be freely diffused through the apartment. Warm mucilaginous or slightly alkaline drinks may be given according to the taste of the patient—barley water, linseed tea, thin gruel; but you will find many patients prefer a mixture of hot milk and seltzer, or Apollinaris, or soda water. These alkaline drinks have a beneficial influence on the secretion from the inflamed mucous membrane, and tend to thin it, to diminish its tenacity, and so promote expectoration, and in this way they relieve the cough.

But there is no remedy with which I am acquainted which relieves this distressing dryness of the mucous membrane in the early stage of acute bronchial catarrh so completely as tartarised antimony. Small doses of this drug, combined with small doses of morphine or opium, you will find most efficacious in relieving attacks of acute bronchial catarrh. The opium relieves the irritative cough by lessening the sensitiveness of the bronchial mucous membrane; and the antimony greatly increases the secretions from it, and so relieves the dryness and swelling which accompany the first stage of bronchial catarrh.

When there is much fever, and the temperature at the outset reaches nearly 103°, a few doses of aconite will be found useful at the commencement of the treatment.

It is important that these remedies should be administered in a suitable form and combination, and in appropriate doses. I would therefore suggest to you the following prescriptions:—

(1) When there is not much fever, and the chief object is to relieve the cough, and the dryness and soreness of the mucous membrane by promoting expectoration, I would give this mixture:—

℞ Vini Antimonialis, ʒ iii.
Liq. Morphiæ Acetatis, ♏ cxx.
Liq. Ammoniæ Acet. ʒ vj.
Aquæ Lauro-cerasi, ♏ cxx.
Syrupi Mori, ʒ iv.
Aquæ ad ℥ vj

M. ft. Mist.

A tablespoonful every two or three hours.

It should be given less frequently as the symptoms are relieved.

(2) If there is much fever, then give the following:—

℞ Tinct. Aconiti, ♏ xxiv.
Vini Antimonialis, ʒ ii.
Liq. Morphiæ Acet. ♏ lxxx.
Liq. Ammonia Acet. ℥ i.
Aquæ Camphoræ ad ℥ viii.

M. ft. Mist.

Two tablespoonfuls every two or three hours.

Much relief is also given by a hot poultice of linseed and mustard, applied over the top of the chest in front, and sometimes also behind, between the scapulæ.

An aperient is often necessary and useful. One or two grains of the extract of aloes at bedtime, and the following morning two teaspoonfuls of Carlsbad salts

in half a tumblerful of hot water, will be found a pleasant and effectual purge.

With this treatment in those milder forms, the acute stage will rarely last more than a day or two, and the white, scanty, frothy, sticky expectoration of the first stage will be replaced by a more abundant, muco-purulent secretion. Patients who have had previous attacks see this change in the character of the secretion with much pleasure, because they know that it is an indication that the attack is passing off. It is now desirable to discontinue the antimony and the opium, or to give it only at night for the relief of cough.

An alkaline mildly-stimulating expectorant is now useful, such as the following :—

Sodæ Bicarb. gr. lx.
Sodii Chloridi, gr. xxiv.
Ammoniæ Carb. gr. xxiv.
Syrupi Tolutani, ℥ iii.
Infusi Senegæ ad ℥ vi.

M. ft. Mist.

Two tablespoonfuls every six hours, and a pill of a grain and-a-half of quinine, and half-a-grain of powdered ipecacuanha may at the same time be given twice or three times a day.

Expectoration is also greatly aided in these cases by an occasional dose of some warm alcoholic beverage, such as a tablespoonful of brandy or whisky in a wineglassful of hot milk and water, three or four times a day.

With this method of treatment you will usually succeed in carrying patients safely and pleasantly through these commoner and slighter forms of acute bronchial catarrh, and convalescence will usually be rapid and complete.

We must next consider the treatment most appropriate to the graver forms of acute bronchitis : to those cases in which the catarrhal inflammation is diffused over a great extent of the bronchial mucous membrane, and affects not only the larger tubes, but those also of medium size, and sometimes even the smallest ramifications.

Such cases when they occur, even in vigorous adults, are very grave and require most careful management ; but when they occur, as they often do, in young children or in old and feeble persons, they are attended with the greatest danger.

When the finer bronchial tubes become attacked, and their calibre is diminished by the inflammatory swelling of their lining membrane, and when many of them become blocked up by the accumulation in them of viscid secretion, you can readily understand how imminent must be the danger of death by apnœa.

Let us ask ourselves what are the objects we have in view in the treatment of such cases? They are these :—

(1) To diminish the inflammatory hyperæmia and swelling of the bronchial mucous membrane.

(2) To thin and liquify the catarrhal secretion when it is dry and scanty.

(3) To lessen it when excessive.

(4) To promote its expulsion from the air passages and so obviate their obstruction.

(5) To allay excessive sensibility of the bronchial mucous membrane.

(6) To maintain and promote the circulation in the lung, and prevent pulmonary venous engorgement and distension of the right side of the heart.

(7) To reduce fever and maintain the general strength.

The several details of treatment by which these indications may be carried out, will have to be modified and adapted to individual cases.

Much will necessarily depend on the age and vigour of the patient, as well as on the stage which the disease has reached when it first comes under treatment. Remedies most appropriate in the earliest stage, and in a young and vigorous adult, might be altogether unsuited to more advanced stages, to a young child, or to an old and feeble person.

We will first consider the treatment of a severe attack of acute bronchitis in a young and robust adult seen at its onset. As in the milder cases the patient's room must be kept at an equable temperature of about 65°, and the air of the apartment must be kept moist and unirritating by the free diffusion through it of the vapour of water.

If there is much oppression of breathing, and a sense of dryness and pain referred to the upper part of the sternum, the withdrawal of a little blood by means of half-a-dozen leeches applied over the sternum will be a judicious measure, and with this may be associated dry cupping over the back of the chest and in the interscapular region. This measure will constantly afford much relief in robust persons when the dyspnœa and sense of oppression are severe.

In most cases it will be advisable to apply large linseed and mustard poultices over the front and back of the chest ; and when the skin is too tender to allow of further counter irritation, a hot jacket-poultice of linseed meal must be used instead.

Of internal remedies I am quite of Stokes' opinion that "there is no remedy that possesses such a decided power over acute bronchitis" as tartarised antimony ; but its success depends much on its early administration : when the bronchial mucous membrane is dry and tumid, and before secretion has become abundant, and when the skin is hot and dry, and the pulse hard and frequent. It should be given in small repeated doses, combined with other diaphoretics and with opium. I have already given you appropriate formulæ.

Warm alcoholic drinks must be given to keep up the force of the circulation, while, at the same time, they favour diaphoresis, reduce fever, and promote expectoration.

Two or three ounces of hot milk or whey, with an equal quantity of seltzer or soda water, and a tablespoonful of brandy or whisky should be given every three or four hours.

Free evacuation of the bowels should be regularly obtained so as to favour the descent of the diaphragm, and afford as complete expansion of the lungs in breathing as possible ; and by unloading the portal system of veins, any tendency to distension of the right side of the heart is to that extent relieved.

It is necessary to insist strongly on the importance of using the greatest discretion in the administration of opium in these cases of severe diffused acute bronchial catarrh. The more diffused the catarrh, the more cautious must we be in the administration of opium. In old people and in young children opium is scarcely admissible, and even in adults, where there is much obstruction to the entrance of air into the lungs from the abundance of secretion in the air passages, opium is a very dangerous remedy.

The effect of opium is to check cough and diminish secretion ; the former it does by lessening the sensitiveness of the bronchial membrane, and the latter by modifying the capillary circulation in it. But in cases of "suffocative" bronchitis, while we might desire to diminish the secretion, we dare not deaden the sensitiveness of the bronchial mucous membrane, or do anything to check the cough. We depend upon the cough to clear and set free the obstructed air passages, and we only desire to make it more efficient to this end.

It is extremely important to bear this in mind with regard to the use of opium in bronchial catarrh ; a dose of opium given injudiciously may produce a fatal

somnolency, quiet the cough, and block up the air passages.

If you give opium at all in such cases, give it only in very small doses, and only when the patient is watched by some thoroughly trustworthy person; but never give it at night to produce sleep, however trying the cough may be, or however urgent the patient or the attendants may be for a sedative.

Remember that opium is rarely ever admissible in the severe diffuse bronchial catarrhs of old persons and young children. When it is very necessary to secure a few hours' sleep, it is better to give from 5 to 20 grains of chloral, with an equal quantity of bromide of potassium or sodium.

With regard to inhalations, Oertel recommends, in the earliest stage, the inhalation of "cold air" according to a method described in his work on "Respiratory Therapeutics," or that of warm aqueous vapour or spray, alone or in combination with mucilaginous or narcotic agents; but when the temperature is high, and the expectoration is scanty and difficult, and the mucous membrane dry, he advises inhalations of Ems water, or weak solutions of sal ammoniac or carbonate of soda, combined with inhalations of cold air.

For the purpose of relieving excessive hyperæsthesia with constant tormenting tickling cough, he warmly recommends the inhalation of a spray containing Extractum Conii Maculati (as employed by Lewin).

The following is a suitable formula for such a spray, to be inhaled warm:—

Extracti Conii Maculati, gr. iii.
(dissolved in rectified spirit).
Aquæ Lauro-cerasi, ℥ xx.
Potassæ Carb. gr. viii.
Aquæ Destil. ℥ i.

M. ft. inhal.

This may be inhaled every two or three hours, and can be employed in cases where it would not be right to use opium.

Cron has published cases of acute bronchial catarrh which he submitted to the action of compressed air, saturated with warm, aqueous vapour charged with sal ammoniac, and he states that the most severe cases were cured rapidly and agreeably.

In the acute bronchial catarrh of children, especially those accompanying infective diseases, such as measles and pertussis, I have found the frequent inhalation of a warm spray containing carbonate of soda and glycerine of carbolic acid of the greatest service in promoting the expulsion of the plugs of tough mucus which tend to accumulate in the bronchi of young children, and obstruct respiration.

I use the following proportions:—

Sodæ Bicarbonatis gr. x.
Glycerini Acid Carbolici ℥ i.
Aquæ Destil. ad ℥ i.

By means of a Siegle's steam spray producer the spray should be allowed to play freely before the child's mouth and nose so that he *must* inhale it with the inspired air.

The advantage of procuring profuse diaphoresis in acute bronchitis has been fully dwelt upon by Niemeyer; whether it acts by derivation from the bronchial mucous membrane, or in some other way, it is certain that profuse sweating is constantly attended with marked relief to the catarrhal symptoms

As soon as the first stage is over, and the scanty and tenacious glairy secretion has been replaced by an abundant muco-purulent one, we must discontinue the use of tartarised antimony, and replace it by small doses of ipecacuanha; and now is the appropriate period for the administration of the stimulating expectorants, such as squills and senega, in combination with carbonate of ammonia.

A suitable formula is the following:—

Ammoniæ Carbonatis, grs. xxxii.
Tincturæ Scillæ, ℥ lxxx.
Sp. Chloroformi, ℥ cxx.
Infusi Senegæ ad ℥ viij.

M. ft. mist.

Two tablespoonfuls every four or five hours.

When the cough remains troublesome, it may be advantageous to add to each dose of the above mixture five minims of wine of ipecacuanha, and thirty minims of compound tincture of camphor.

On the other hand, as convalescence advances, the tincture of squills in the above mixture should be replaced by one dram doses of tincture of cinchona.

In all such cases symptoms of debility and loss of power must be immediately encountered by the free administration of alcoholic stimulants.

In debilitated persons, and when we do not encounter the case in its earliest stage, a combination of carbonate of ammonia, ipecacuanha (in small doses), and bark, with warm alcoholic stimulating drinks, and the inhalation of warm alkaline sprays to thin the secretions—these are the measures to be relied upon, and not tartarised antimony or opium.

With young children, who cannot expectorate, we must give occasional emetics. Ipecacuanha is the best, and if the child is robust, tartar emetic may be combined with it. Twenty grains of powder of ipecacuanha and a quarter of a grain of tartarised antimony, mixed with a tablespoonful of syrup and water, will usually have the desired result. The effect of the emetic is not only to promote expectoration, but by the mechanical compression of the lung it induces, it tends also to relieve congestion. The sticky mucus which accumulates in the child's mouth after vomiting should be carefully removed.

Some use the hydrochlorate of apomorphia as an emetic in these cases. One twentieth of a grain injected hypodermically can usually be relied upon to produce vomiting in ten minutes. When a child cannot be induced to swallow an emetic, this is obviously a valuable alternative.

Emetics are also useful in cases other than those of children, when, owing to debility of the bronchial muscles, the catarrhal secretions are retained in the air passages. This state "may be detected when, immediately after the act of coughing, the *râles*, instead of subsiding for a time, persist with scarcely any diminution. In such an emergency, should the expectorants fail, an emetic is imperatively indicated." (Niemeyer).

In young children who do not know how to cough, besides the removal of the accumulated secretions by means of an emetic, the child may be roused to more active respiratory efforts by putting him in a hot bath, and sprinkling cold water on the chest while in it. Nor should he be allowed to fall into a prolonged or deep sleep, but should be aroused from time to time, and the spray of solution of carbonate of soda and glycerine of carbolic acid applied as I have already described.

In cases in which there is a tendency to a maintenance or recurrence of fever, quinine must be given. Many other details in connection with the treatment of bronchitis will be considered in my next lecture, which will be devoted to the treatment of *chronic bronchial catarrh*.

Treatment of Ear-ache.—It is said, that by the following simple method almost instant relief of ear-ache is afforded. Put five drops of chloroform on a little cotton-wool in the bowl of a clay pipe, and then blow the vapour through the stem into the aching ear.—*New York Medical Record*, May 24.

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CLINICAL LECTURE

ON PERFORATING ULCERS OF THE SEPTUM NASI.

By JONATHAN HUTCHINSON, F.R.S.,
Emeritus Professor of Surgery in the London Hospital College.

(*Continued from page 7.*)

My next two cases have for their subjects those in whom specific disease had undoubtedly occurred. There had been, however, a long interval in each. In both there was an entire absence of other specific symptoms at the time of the perforation of the septum, and in neither did the ulcer spread rapidly, as is usual in those of a specific nature.

Case IV.—Mr. B. F. consulted me in August, 1883. He was a married gentleman, aged 39, with two healthy children. He appeared to be in perfect health, but was hypochondriac in several directions, and especially in reference to specific disease. For this he had, he said, been treated by the late Mr. Startin in 1867, but had never had anything excepting the primary local symptoms. One year before coming to me, he had, whilst living in Australia, suffered from some eruption on his nose, and had discovered that there was a sore inside it. On each side of the cartilaginous septum, about half an inch up, was a grey-based sore about the size of a fourpenny piece, which was always covered by an adherent scab. This scab was extremely thin, almost paper-like, and the sore below usually bled when it was detached.

I treated Mr. F. for several months, applying the acid nitrate of mercury lightly about once a month, sometimes to one side sometimes to the other. I gave him also some small doses of mercury, but at the end of the treatment felt less and less inclined to believe that he had any just ground for his suspicion that the ulcers were specific.

He told me that he could remember in boyhood that his nose used to be sore, and that he used to pick it. And he gave me also the curious fact that his father had a hole through his septum. This formed, so far as he could remember, when he was about 50, and he thought in connection with the habit of picking the nose; he lived thirteen years afterwards, and except a certain amount of local irritation had no serious trouble from his nose.

The result of treatment in Mr. F.'s case was, that the ulcer healed without actual perforation, but the septum had become exceedingly thin, and I have little doubt that on some future occasion it will give way under a relapse of ulceration.

Mr. F. has for the present returned to colonial life.

Case V.—Mr. H. is a wool-stapler, aged about 40, and in excellent health. There is no doubt that he has suffered from specific disease, but it was many years ago, and excepting his nose there is no reason to suspect that it lingers in his system. He has one child in excellent health. When Mr. H. first came to me, the perforation was already large and would easily have admitted the end of a thumb. It had destroyed not only the cartilage but a considerable extent of bone, and at its posterior edge, where ulceration was still going on, the edge of the vomer was bare. From the history it appeared that the ulceration had begun in the usual position, and slowly and steadily advanced backwards, eating its way more like a rodent ulcer than a specific one, thus it had never caused any exfoliation of fragments of bone, and never been attended by any acute inflammation or any fetid discharge. I have treated this gentleman, seeing him once in three months, for about two years, and have made repeated applications of the acid nitrate of mercury to the posterior and spreading edge; he has also taken for a long time small doses of mercury. I believe that the ulcer is at length quite healed, and may say that since I have had him under care there has been no real spreading, although I was never able until lately to say that the healing was complete in all parts. The exposed bone seemed to hinder the scarring, and it would not exfoliate.

Case VI.—Mrs. A., aged 46, was under my care in November, 1883, for an ulcer on the septum which had not perforated. It was on the right side about one inch above the border of the columna; it had a scab on it and bled very readily when this was detached. It was nearly round and about half-an-inch across. She believed it had remained in its present state, or at any rate without any material advance, for four or five years; and in confirmation of her suspicion said that she had consulted Mr. Carr Jackson on account of a sore nose as far back as 1878. It must not, however, be held to be by any means certain that the ulcer on the septum was present then. I cauterised this ulcer, but have since lost sight of my patient and cannot tell you whether it has healed or not.

Case VII.—Miss M., a governess, aged about 26 years, was sent to me by her brother, who is a medical man, on account of an ulcer in her nose. She was in great distress and anxiety, for a younger sister had lost her nose, both lips and a large part of her face by lupus. I have subsequently had this younger sister under treatment and can tell you that beyond question her disease is simply lupus. It began, I believe, on the nose, and it has destroyed the septum further back than is usually seen. To return to my first patient. I found a little ulcer in the septum with slightly raised edges, leaving a hollow that would have held about half a pea. I cauterised this ulcer carefully but freely with the acid nitrate of mercury and it healed absolutely and soundly. Miss M., however, came to me about a year later with soreness in the other nostril for which we had to adopt similar measures. I have little doubt that in this case we ought to consider the ulcer as lupoid in character. It will be seen that the patient is much younger than most of those in my series.

Case VIII.—In March, 1883, Dr. Carden, of Bath, brought to me a gentleman, aged 42, an Australian colonist, apparently in excellent health. He came on account of an ulcer in the right nostril on the septum. It was as big as a fourpenny piece but ovoid in shape. The cartilage itself was exposed, and the whole of the sore had a grey base. In the opposite nostril, the mucous membrane over the corresponding part was dry and slightly abraded. There was no actual perforation, but clearly the tendency was steadily in that direction. The ulcer had been known to be present for about ten months. There was no reason to believe that specific disease was even possible. Our patient had a healthy family, and he absolutely denied that he had ever been exposed to risk. He had taken much iodide before I saw him without any advantage to the ulcer. The fang of his right canine tooth and its alveolus were exposed, and I picked away a small scale of the latter from over the fang. There was nothing, however, in the condition of these parts which was suspicious either as regards lupus or syphilis. During the month that this gentleman remained under my care, I touched the ulcer three times with the acid nitrate of mercury. It got much better, and I believe that it healed, but have no positive evidence on this point as our patient has returned to his Australian farm.

Case IX.—Mrs. F., a lady, aged 37, having five living children in good health, was under my care in May, 1882, on account of a perforating ulcer of her septum. She had taken a great deal of iodide of potassium, and had not cured it, and also the green iodide of mercury up to slight ptyalism. Mr. T. H. Bartlett, of Birming-

ham, who sent me this patient, sent also a very complete history of her case, and it comprised some very suspicious facts although nothing that was quite conclusive. Thus, although there was no history of any primary or secondary disease, and although her five living children were in good health, Mrs. F. had had two or three premature confinements, and she had herself lost her uvula with a small part of the soft palate. The ulceration of the palate had occurred about two years before I was consulted and a little after the first symptoms in the nose had been noticed. It had apparently been arrested by the iodide of potassium and had now healed soundly. I cauterised the edges of the ulcer in the nose with the acid nitrate of mercury, and ordered tonics and a mild mercurial ointment; we no longer gave any specific internally. In May of the present year, in answer to my enquiry, Mr. Bartlett was kind enough to inform me as follows: "Mrs. F.'s nose is quite well, and has been so since she saw you. She has since had three early miscarriages and no completed pregnancy. Her health is good and her nose gives her no trouble." If we grant that the loss of uvula &c., and the healing of the parts under the iodide are in this case proof beyond question that there exists a specific taint, it may still be urged that the ulcer of the septum was cured by local treatment and did not get well under the internal administration of specifics.

Case X.—Miss M., aged 50, a governess, was under my care in June 1873. Her nose had fallen considerably owing to the destruction of the septum. She had also suffered from common lupus of the end of the nose in a very chronic form. The first symptoms inside the nose were in 1860, whereas the skin at the end of the nose was not affected until 1868, and did not ulcerate till after an attack of low fever in 1872. The disease began, she said, by obstruction in the nose, and next she had ulceration of the septum, for which she was brought to me by her medical attendant, the late Dr. King, of Hackney. I saw her but once, and cauterised the sore. Dr. King repeated the cauterisation and it healed perfectly, and remained sound some years. There was no reason to believe she had had syphilis, either inherited or acquired. When I saw her on the second occasion the septum had been very extensively destroyed. The disease, as you will note, had been exceedingly slow. My impression is, that we have in this case a good example of a disease which was really lupus, beginning by ulceration of the septum of the nose. It is the only case which I can produce to you in which the perforation of the septum and lupus of the skin were actually coincident in the same patient. In another instance I have already mentioned that one young lady had a perforating ulcer, and her sister common lupus. This case is also exceptional, in that the destruction of the septum has been extensive enough to cause deformity. In my other cases there was no falling in whatever.

Case XI. — Dr. Alexander Reid, of Canonbury Park, brought to me a very interesting example of this disease. It occurred in the person of a very healthy looking gentleman, aged about 50, living at the seaside. There was a history of syphilis thirty years ago, but so far as he knew he had been quite well ever since. The sore in the septum of the nose had first shown itself two or three years ago. It had been extremely slow in progress, and had not yet caused perforation. It was covered by a thick adherent scab which made it look much larger than it really was. When this had been removed a very superficial ulcer was all that remained. Vigorous specific treatment had been used (not by Dr. Reid) for some months before I was consulted, and without any definite benefit. Taking this into consideration, together with the facts that our patient had a healthy family and no concomitant symptoms, I felt no hesitation in believing that the ulcer was not specific and in advising that only simple measures should be adopted. I touched it lightly with the acid nitrate of mercury and ordered a yellow oxide ointment. At his next visit, a month later, it was very much improved and appeared likely soon to heal.

Case XII.—The case of the Rev. Mr. G. is of some interest in connection with this matter. He is now nearly 60 years of age. Many years ago he was salivated by Mr. Critchett on account of an attack of neuro-retinitis, and his case is mentioned by me as an instance of the benefits of mercury in my article in "Reynold's System of Medicine." It is now more than thirty years since his primary disease. Of late years he has suffered a good deal of annoyance from a superficial form of specific lupus on both legs. This is never attended by any deep ulceration, but has crept superficially over large areas. It is always benefited by the iodide internally, and mercurial ointments, but he never perseveres long enough to get it quite well.

On April 1st, 1884, he came to me on account of a little ulcer in his nose. I found on the septum in the left nostril a sore about as big as a split pea covered with a dry scab, on the detachment of which it bled a little. The ulcer was, however, remarkably quiet and there was no inflammation on the parts around it. Its conditions were very similar to those of the lupus on his legs.

In this instance it is difficult not to admit that the cause of the ulceration on the septum is the same as that of the lupoid sores on the legs and that both are remotely connected with the specific taint. You will note, moreover, the very long interval which has passed and the extremely chronic and very slowly progressive character of both maladies. They are syphilitic, no doubt, but only in a remote degree.

The twelve cases which I have brought before you do not comprise by any means all that I have seen. They are sufficient, however, I think, to illustrate and prove the statements with which I set out. Chronic perforating ulcers of the septum nasi occur not unfrequently under conditions which preclude the suspicion of syphilis. Sometimes they are of the nature of lupus, and the younger the patient the more likely it is that they have this relationship. They are most common after middle age, and in not a few patients at this period of life it is impossible to assert anything with confidence as regards their cause. Even when there is a clear history of syphilitic antecedents, if the ulceration be very slow and without tendency to diffuse inflammation or to exfoliation of bone, it will usually be found that internal treatment by specifics does very little good whilst local treatment will cure. The best local treatment is the repeated careful application of the acid nitrate of mercury and the use of the yellow oxide ointment.

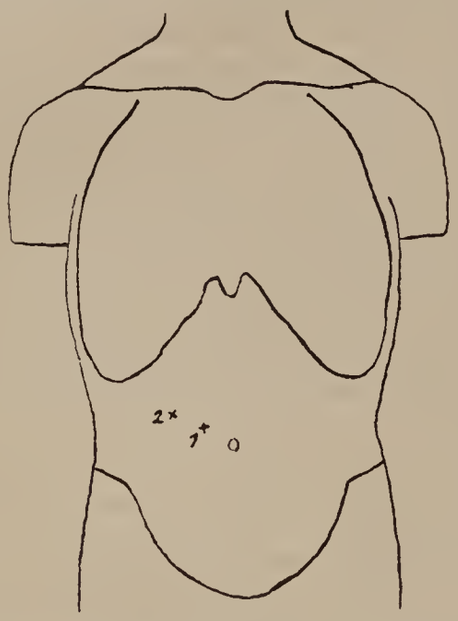
ON SOUNDING FOR IMPACTED GALL-STONES.

By Dr. GEORGE HARLEY, F.R.S.

(*Continued from page* 10.)

The patient, a delicate constitutioned lady, aged 36, married, and the mother of several children, had for many months suffered from all the worst signs and symptoms of obstructed common bile duct. Not only was her abdomen greatly distended with ascitic fluid; but she was so weak and near to the point of death that both Dr. Diver—her regular medical attendant—and I, believed that the only chance of prolonging her life lay in the artificial removal of the obstruction. Before, however, calling in an operative surgeon to perform bilotomy, we deemed it prudent to make perfectly sure that the obstruction of the bile duct was

due to the presence of a stone, as neither of us had any wish to see the poor sufferer's abdomen unnecessarily opened. Accordingly, a day or two after a gallon of ascitic fluid had been withdrawn from her abdomen, she was made insensible with A. C. E. anæsthetic mixture (given because of her having a weak heart). I then introduced an exploring trocar (in the manner before described) at a point midway between the lower margin of the liver and the umbilicus; but an inch and a half to the right of it. Fig. 1.



The instrument was then slowly pushed upwards, outwards and backwards in the direction of the common bile duct; but although it was inserted up to its hilt (six inches) in the still distended ascitic abdomen no hard substance was encountered. In order to ascertain the exact position of the cannula's point, I withdrew the stilette to see if any, and what kind of fluid would flow from it. As nothing but ascitic fluid came away, its point was known to be free in the abdominal cavity, so I proceeded to search with it in all directions for the suspected stone. The search proving unsuccessful, the instrument was withdrawn and reinserted an inch higher up, a little more to the right. Fig. 2. On again pushing it in the direction of the common bile duct, just as it reached its full depth of six inches, its point not only impinged upon, but stuck in a hard substance. The sensation communicated to the fingers, as well as the faint sound emitted when this was tapped against with the blunt end of the cannula, left no doubt upon my mind that it was a calculus. The next point was, if possible, to ascertain its size, by pressing the end of the cannula firmly against it, and running the point of the instrument round it. The impression so derived was that the stone was of the size and shape of an ordinary hazel nut. As no blood whatever flowed from the punctures, either during or after the operation, these orifices were simply covered over with a piece of sticking plaster, and the abdomen bound up.

The sounding having thus completely confirmed the symptomatic diagnosis, and further shown that the obstructing stone was no bigger than a moderately sized hazel nut, it was deemed advisable, before subjecting the patient, in her exceedingly weak state, to the severe operation of bilotomy, to delay a few days in the hope that under the influence of medicine, the stone might pass along the duct into the intestines. Most fortunate this determination turned out to be; for at my next visit—six days after the sounding—I found all the signs and symptoms ameliorated. The stools had not only already become of their normal colour (which they had not been for many weeks), but the urine had lost its bilious hue, and the skin was less jaundiced. Besides which, the previously distended gall-bladder was now no longer perceptible to the touch. Changes which, when considered collectively, led to but one conclusion, namely, that the duct was free—that the stone had passed. As it had not, however, been found in the stools, it was thought to be still within the bowels, experience having taught me that stones after having safely reached the intestines do not always immediately come away, but often remain in them for weeks, sometimes even for months.

No untoward symptom resulted from the operation. Everything went on well until the eleventh day after the sounding, when pain and tenderness were complained of in the right iliac region. The pulse became rapid. The temperature rose, and signs of enteritis speedily followed, no doubt from the usual cause in such cases, namely, the irritation produced by the stone getting lodged in the ileo-cæcal valve. Its ordinary concomitant, peritonitis, supervened, and notwithstanding that the patient had regained considerable strength during the eleven days of convalescence after the sounding, she sank and died twenty-seven days after the operation, which had so fortunately led to the accidental dislodgment of the stone, after its having been for so many weeks previously firmly and dangerously impacted in the duct. A theory of the cause of the sudden extrusion of the stone shall be given presently. Meanwhile I will give the result of the necropsy, which consisted of an examination of the liver, its biliary appendages, and their intestinal attachments, all of which parts were kindly forwarded to me by Dr. Diver. Their examination yielded the following interesting information :—

1st. The gall-bladder, in so far as bile was concerned, was found empty, for it contained not more than half a drachm, clearly proving that the obstruction to the outflow of the bile had ceased before the patient's death.

2nd. The gall-bladder contained thirteen biliary calculi. The three largest lay in a row, and fitted on to each other's ends by facets. The largest of all, which lay with its broadest end downwards against the orifice of the cystic duct, was seven-eighths of an inch long, and six-eighths of an inch broad. In contact with its upper facet was an angular cornered stone of the dimensions of a moderately sized hazel nut, against the upper end of which lay the smallest of the three. It differed from its two companions in being facetted at its lower end only. The gall-bladder was contracted upon the stones.

3rd. The fact of the calculus impinging on the orifice of the cystic duct having a facet at its lower end of the same size as that at its upper, and there being no stone to correspond either in size or shape to it in the gall-bladder or bile ducts, leads to the irresistible belief that the calculus which belonged to this facet must have not only escaped from the gall-bladder, but from the common bile duct during the lifetime of the patient.

4th. The fact of all the signs of an obstructed bile duct having suddenly vanished after the sounding, favours the theory that the passage of the stone from the bile duct was in some way or other directly connected with the operation.

5th. The extrusion of the stone from the duct after having been so long and so firmly impacted in it, may be accounted for in the following manner :—

Assuming that it was as angular at its corners as the hazel-nut sized one found in the gall-bladder, it is easy to imagine that it was sticking angular-wise in the duct when the sounding was performed, and that the pressure exerted on its corners, when the cannula was being passed firmly round it in order to ascertain its size, altered its position in the duct; and

from its assuming a more longitudinal one (the other stone was slightly oblong) it was enabled to slip along and out of the duct into the intestines.

Now comes the important question :—

Of what practical good is the narration of this case ?

I reply—Of great practical good, if its teachings are properly considered. For its history clearly establishes the following points :—

A. That the presence of an impacted gall-stone may, under similar circumstances as the above, be indubitably ascertained by instrumental means.

B. That not only can the exact position and probable size, but under favourable circumstances even the very shape of an impacted gall-stone be instrumentally ascertained.

C. That the operation of sounding for gall-stones in the way here advocated is as safe in skilled hands as the tapping of a distended gall-bladder or ovarian cyst.

D. A knowledge of the clinical facts adduced may possibly deter enterprising surgeons from laying open the abdomens of patients in search for gall-stones which not only possibly but even probably have no existence whatever.

E. While the fact of being able to indubitably ascertain the existence of a gall-stone without undertaking the severe operation of incising the abdomen, on the mere chance of finding one, may induce physicians to recommend patients suffering from suspected dangerously impacted biliary concretions to submit to the operation of sounding, with the ulterior view, if a stone should be detected, of advising its extraction, seeing that in a number of instances the removal of the stone from the duct by the surgeon's knife offers the only chance of saving the patient from an untimely grave.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING CROSS HOSPITAL.

CASE OF DIFFUSE BRONCHIECTASIS OF THE RIGHT UPPER LOBE.—DIAGNOSIS FROM TUBERCULAR PHTHISIS.

(Under the care of Dr. MITCHELL BRUCE, F.R.C.P., Physician to the Hospital.)

(Reported by Mr. HUZZEY, House Physician.)

ALICE S., age 22, single, was admitted into the hospital on October 12th, 1883.

The patient stated that her father and mother were alive and healthy ; she had three brothers alive ; one had died of consumption, another of acute bronchitis. She had five sisters, all strong and well.

Previous History.—Patient was never ill until three years ago, when she had bronchitis for four months. Since then she has had a slight cough, but no further illness until three weeks ago, when she felt weak and faint, and the cough increased. For two days she had slight hæmoptysis, the blood being of a bright scarlet colour.

Present Condition. —Patient is a well nourished, rather hysterical-looking, but delicate young woman. Chest fairly well shaped, without striking impairment of movement. Rhonchal fremitus is felt under right clavicle ; vocal fremitus weak over both fronts, not felt behind. Both back and front of chest slightly hyperresonant ; resonance behind reaches to the bottom of the tenth interspace in the scapular line. Breathing on the left side is a trifle harsh, and accompanied occasionally by a few sonorous and sibilant rhonchi. On right side it is almost obscured by *râles;* so far as it is heard, its character is not much altered. The *râles* consist of tough creaking sounds, heard all over right side, especially on inspiration. The creaking sounds are altered in character but do not disappear on coughing. Voice sounds throughout are natural. Cough spasmodic, worse in the morning. Expectoration consists of pellets of thick tenacious muco-pus Appetite good ; tongue slightly coated ; pain in epigastrium, increased after food ; feeling of sickness, without actual vomiting. Pulse 96, regular and weak. Temperature varies daily between 98° and 101° or 102°. She was ordered to take 3-grain doses of iodide of potassium with carbonate of ammonia ; and ether and ammonia during the attacks of convulsive cough.

October 18.—Patient was seen during a severe fit of coughing. The act is attended by an appearance of great excitement and anxiety, lividity of the face, perspiration, and violent muscular struggling. When the patient is assisted, she resists restraint and screams in a hysterical fashion.

December 5.—Condition much improved. Coughing fits by no means so severe. The sputum contains no bacilli. Right subclavicular region flat and less movable ; vocal fremitus, as on left, moderate ; rhonchal fremitus distinct ; percussion impaired without absolute dulness ; and the same over clavicle and in supra-scapular fossa. Respiratory murmur over right upper lobe covered by abundant large tough *râles* or rhonchi, peculiarly coarse, dry, friction-like in character. Posteriorly and inferiorly these become more abundant, much smaller, and more moist. They are disturbed by cough, but increased rather than diminished. Over base, coarse respiratory murmur is mixed with the rhonchi. Bronchophony and pectoriloquy all over front, down to nipple level ; absent below that. Over left lung generally loud, coarse, rhonchoid respiration. No pulsation to right of sternum ; cardiac apex normal.

January 6th, 1884.—Discharged, much improved.

Remarks.—Dr. Bruce pointed out that the chief interest of this case lay in its close resemblance to true tubercular phthisis, and the method by which its nature was diagnosed. On admission the patient was believed to be suffering from ordinary phthisis ; but a study of the signs and symptoms quickly revealed the true nature of the case to be diffuse bronchiectasis of the right upper lobe. The most striking symptom was convulsive cough, not unlike pertussis in all its characters, but even more violent. This kind of cough, which is peculiarly suggestive of retention of bronchial and pulmonary products, does not appear to be sufficiently appreciated as a diagnostic symptom of chronic pneumonia, bronchial dilatation, or basic cavity. In the present case it was exaggerated by the hysterical behaviour of the girl. The physical signs, though closely simulating those of phthisis, were really distinctive : the thick croaking *râles*, unaffected by repeated cough, and attended by little change in the respiratory murmur (where audible), clearly corresponded with the condition suggested by the peculiar cough. The diagnosis was tested by repeated examination of the sputum, which contained no tubercle bacilli. The importance of a correct diagnosis in such a case is obvious. Therapeutically it indicated saline expectorants ; and the combination of iodide of potassium and carbonate of ammonia quickly increased the amount (liquidity) of the sputum, with remarkable relief of the cough.

ROYAL INSTITUTION OF GREAT BRITAIN.—Professor Arthur Gamgee, M.D., F.R.S., has been appointed Fullerian Professor of Physiology for three years.

Medical Times and Gazette.

SATURDAY, JULY 12, 1884.

Our Paris correspondent writes :—The cholera continues to be the prevailing topic of the day. The epidemic seems to be steadily increasing, the largest daily number of fatal cases reported at Toulon being 25, and at Marseilles 30. It must be remembered that, considering the intense emigration which has taken place, and the dispersal of the garrison, the population of Toulon may be at present estimated at 50,000, or in round numbers, one-hundredth of the population of London. To establish a comparison, therefore, between the two cities, it is necessary to add two cyphers to the right hand of each figure—25 deaths at Toulon represent 2,500 deaths in London. Now, if 2,500 deaths from cholera were registered in London in a single day, there would probably be, to use an elegant transatlantic expression, "a general stampede of citizens." "Internal" cases have occurred in ample numbers in the hospitals. Dr. Borel, a naval physician of high rank, died a few days ago, and was buried with great solemnity. He was the first medical victim of the epidemic. Since then, medical students and attendants have also been struck down. Sœur Macedonie, a sister of charity, who died of cholera the other day, well deserves to have her humble name put down among those who did their duty to the last. Two other sisters of charity have just been removed to the hospital ; and the disease, in spite of all sanitary precautions, has made its appearance in the naval prison. At Aix, three cases of cholera are reported ; and one has occurred in the vicinity of Grenoble, at Goncelin. Cases are also reported in Italy, at Saluzzo, and at Verona. It is also stated that a few cases have occurred in Spain.

The state of things which results from the sanitary precautions established by various governments and municipalities is both laughable and painful. At Perpignan, for instance, travellers on arriving at the station are locked up, and disinfected by the emanations of burning sulphur. Two ladies subjected to that treatment were nearly suffocated. Not only the lungs and eyes of travellers, but also their watches and jewels are injured by such fumigations, which are more likely to kill off delicate subjects than to stamp out the seeds of disease. In other places, travellers are obliged on arrival to strip off their clothes, and plunge into a bath saturated with sulphate of copper—worse than the mutton broth of workhouse celebrity. On the Spanish frontier, people coming from France are obliged to spend a week in the lazaretto of Irun ; and, as that delightful abode cannot supply a sufficient number of beds, one has to spend first a week at Hendaye, on the French frontier, before being allowed to spend another week in the Spanish pest-house. Such measures are better calculated to breed cholera than to prevent it, for a single case occurring in these dense but artificial agglomerations would be sure to create a local epidemic, which most undoubtedly would penetrate the Spanish frontier. The most stringent measures have also been taken upon the Italian frontier, and many French journals insist upon similar precautions being taken within France itself. But travelling under such conditions would become absolutely impossible, and the uselessness of such proceedings has long ago been demonstrated. It is clearly possible to check the propagation of cholera by sea ; it is clearly impossible to check its propagation by land.

In a remarkable and impressive speech delivered at the Academy of Medicine on Tuesday, Dr. Rochard, who has just returned from Toulon where he has been inspecting the fleet, insisted upon these views. "We stand," he said, "in presence of an averred epidemic of Asiatic cholera. Let us face the danger like men. Let us consider the present visitation as a solemn warning. Let us remember that when proper sanitary measures were enforced in the Red Sea, the evil was averted for a space of sixteen years, while, as soon as these measures were laid aside, cholera invaded Egypt, and from thence after a short pause, sprang upon Europe. For the present epidemic," said he, "unquestionably comes from Egypt, not from Cochin-china." The eminent speaker then proceeded to give some facts and figures concerning the chief features of the disease as observed at Toulon. He stated that its intensity was perhaps less severe than on former occasions. In 1835, Toulon lost 1,656 inhabitants from cholera ; in 1849, 751 ; in 1854, 1,135 ; in 1865, 1,331. Up to the 7th of July, the deaths from cholera have amounted to 159. But the inhabitants remember that on former occasions the disease made its appearance in a mild, insidious form, and suddenly rose to an alarming degree of intensity. Such is the chief cause of their present fears. Dr. Rochard states that premonitory diarrhœa has existed in all cases, even in the most rapid ones, terminating fatally in the space of six hours. This diarrhœa lasts in general a few days, sometimes a few hours. Vomiting and cramps appear in succession. Algidity and suppression of urine constantly follow. In fatal cases, most patients die in the stage of typhoid reaction. The proportion of deaths is about one in every five cases. Hypodermic injections of morphia have not proved beneficial, Dr. Rochard prefers atropine and sulphuric ether. Inhalations of oxygen, as performed by Dr. Troncin, have proved beneficial, especially when the patient was in a comatose state.

After this communication, the Academy voted a proposition, to the effect of requesting the authorities to postpone the celebration of the 14th of July, considering that under the present circumstances the agglomerations which the National festival necessarily produces would create an imminent danger. Similar resolutions had previously been voted by the Board of Health and the Society of Public Medicine and Professional Hygiene. And yet, in spite of all, the festival will be celebrated. The opposition, it is said, must not have an opportunity of charging the Republic with want of proper courage. It might well be replied that bravery on the field of battle and on all proper

occasions is a very different thing from foolhardiness; that there is no disgrace in bending under the pressure of natural forces, and that cholera is one of those foes "quos opimus fallere et effugere est triumphus."

It is stated in one of the daily papers that the Medical Act Amendment Bill is to be withdrawn, as it is hopeless to attempt to pass it this session; and judging from Mr. Gladstone's statement to his supporters on Thursday, we can fully believe it. We quite agree with the President of the Edinburgh College of Physicians, who says, in a letter to the *Scotsman*, that he and many others prefer the Bill as it is to the Bill with Sir Lyon Playfair's amendment; but we are inclined to go further, and to prefer no Bill at all to one so changed from its original shape and intention, as it would have been changed if the Playfair amendment had been accepted by Mr. Mundella. For one reason, it is a pity that the Bill is to be withdrawn before it reaches a further stage, for it is stated by another daily paper, that an amendment of a novel character, originating with Dr. Lyons, was to be submitted in Committee. This amendment would have proposed to authorise the appointment of two practising physicians or surgeons, of not less than twenty years' standing, as life peers, to act as Lords of Appeal in Ordinary in medical cases. Of course it would not have been accepted, but its discussion even would have been of some use.

The hybrid committee has rejected the Lower Thames Valley Drainage Scheme, in spite of Mr. Harrison's very favourable report. The report, though not published, was communicated to the committees of promoters and opponents and by them to other persons directly interested therein. Mr. Harrison approves of the scheme in nearly every detail, the process for purification proposed; a combination of precipitation by sulphates of aluminium and iron, with lime to give an alkaline reaction, and subsequent filtration by irrigation being in his opinion the best system known. After referring to the success which has attended it at Coventry, Hertford, and other places, he says, "I am confident that under good management the treatment of the sewage as proposed would not create any nuisance in the neighbourhood, that the effluent might be discharged into the Thames at all times of the tide without any injurious effect on the river and that it would soon be found that the sentimental grievance would soon give way to the acknowledged benefit afforded to the district by the establishment of the works." Dealing with the objections urged against the scheme by the inhabitants of Kew, Mortlake, and Richmond, Mr. Harrison states that these places will all be immediately and very materially benefited by the sewage works, and that even if the works were conducted in the most careless manner they would not experience anything like the nuisance to which they are at present periodically subjected by the emptying of their own and their neighbours' cesspools, to say nothing of the danger incident to the proximity of these to wells in the more rural part of the district, and he feels satisfied that whatever check the establishment of these works may for the moment give to building operations, the advantage of having an efficient system of sewerage will be appreciated, and before long building will be resumed and probably on a greater scale than hitherto. He disposes very shortly of the objections made by the various rowing clubs, by reminding them that at the present time a large amount of sewage does find its way into the river in its crude state, and as every one knows, causing local nuisances and general pollution, whereas, on the new system, no sewage whatever would be admitted until it had been so treated as to have become perfectly clear and free from the slightest odour. Such an effluent does not interfere with the use of a river for boating, bathing, fishing, or any purpose except drinking at or near the point of discharge. As regards the objections brought forward by the landowners, they are such as would have been urged against any spot that might have been chosen and which, if attended to, would effectually block any and every proposal that could possibly be made for the removal of an acknowledged and yearly increasing evil—the pollution of the river by the existing sewers and the impediments to the construction of sewers in places where there are none as yet.

Mr. Nettleship's paper on Thursday week at the Ophthalmological Society's afternoon soiree, if we may be guilty of using such an expression, was interesting both to physicians and surgeons. To the former especially on account of the good evidence it afforded of the possibility of a neuritis being local and limited in extent. We lack positive evidence in any of the cases as to the exact nature of the affection, but their course enabled Mr. Nettleship to exclude a good many causes of neuritis with certainty. Indeed the best argument that could be urged against the diagnosis of local neuritis in these cases would be that we have, so far as our knowledge goes, at present no corresponding affection of the nerve trunks throughout the body, and it is not easy to see why the optic nerve should be thus liable to an affection from which the other nerves are singularly exempt. Cases do every now and then crop up in which it seems likely that a paralysis is due to peripheral neuritis, but they are few and far between. On the other hand it is to be remembered that it is much easier to recognise neuritis in the optic nerve than in any other, and many cases of neuralgia may in reality be due to neuritis.

Mr. Hutchinson's case of proptosis, which concluded the business of the afternoon, was worthy of a larger audience, and was an ample reward to those who had given up their afternoon in order to attend the meeting. An abstract of the case will be found in our report on another page, but one feature of it seems to have escaped notice, and that is, that the proptosis was confined to one eye in varying degree for three years, and a few days after this eye had been lost by suppurative inflammation the other eye became protruded. It is difficult to frame any rational hypothesis which would explain such an occurrence as this. It would seem to afford an argument against the idea of the

affection having a central origin, and this view would be further supported by the benefit derived from the local application of ice. The treatment by ice seems to have been suggested by its success in some cases of exophthalmic goitre, when applied to the thyroid. It is evident that we are here in the presence of a disease, a satisfactory explanation of which has yet to be given.

At the Annual Meeting on Friday evening, Mr. Snell read a paper on miners' nystagmus, from which it would appear that in Staffordshire, at any rate, it is only those who are employed in one particular kind of work, viz., that known as "holing," who are liable to nystagmus. This he attributed to the cramped position they were forced to occupy, and to the muscular fatigue which the strain put upon the eyes necessarily involved. This formed the text of the best discussion which we have heard at this Society all the session, the point being whether the disease was, as suggested by Mr. Snell, due to muscular fatigue, or whether there was not in reality a disturbance of the co-ordinating mechanism in the central nervous system.

Mr. Priestley Smith undertook the defence of the latter view, and pointed out with much force that these movements were always bilateral and synchronous, a fact strongly suggestive of their having a central origin. The co-ordinating centres in question required the stimulus derived from retinal impressions; this was evident from the case of infants born with cataract or disease of the optic nerves, in whom nystagmus was present, but might be recovered from if the sight were gained at a sufficiently early age. The conditions under which the miner worked, in a bad light and surrounded by black walls, would naturally produce a feeble stimulus to fixation. Other speakers followed on the same side and urged that fatigue of the centres was more readily induced than fatigue of the muscles, and that writer's cramp and other analogous diseases were probably of central origin. It seems to us that, although the central theory is very taking, we ought not to adopt it until some explanation is afforded of the fact, for such at present it appears to be, that nystagmus is not equally common amongst all forms of miners.

At the Epidemiological Society on Wednesday last, a pleasant evening was passed in the discussion of the protective power of vaccination, enlivened by details of antiquarian interest relative to the prevalence of small-pox in the 16th and 17th centuries at home and abroad. The attendance, however, was very small, and it was agreed that this the first experiment of a July meeting was so far a failure that it should not be repeated.

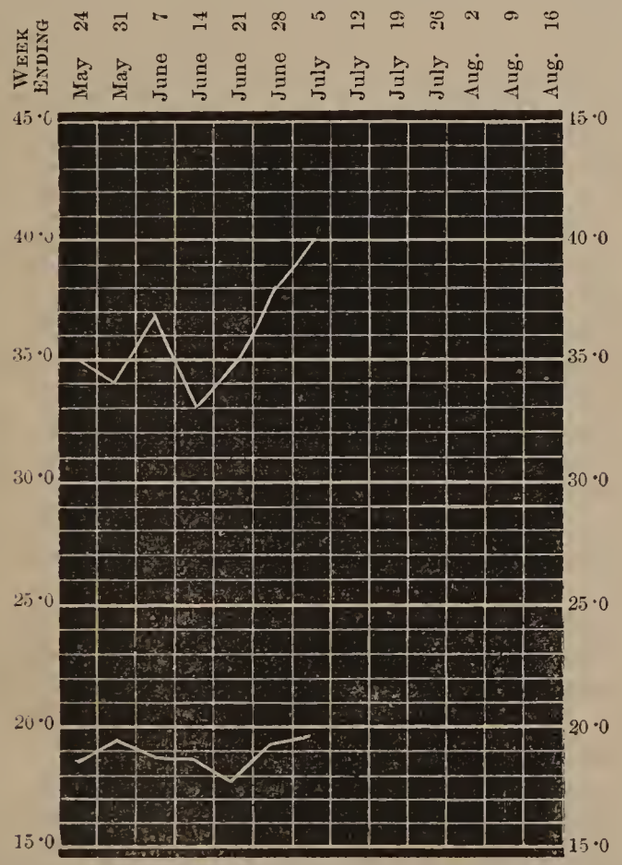
On Thursday week the London School Board had a long discussion on educational over-pressure. A proposal was made, and vigorously supported, that a special committee should be elected to enquire into the matter, and subsequently an amendment was proposed which was practically a vote of confidence in the Code and in the School Management Committee. Neither, however, was carried, and the discussion, after lasting for two hours, was adjourned. There can scarcely be two opinions outside the Board as to the desirability of a special enquiry into the question. As Mr. Bousfield said in the course of the debate, the public has had statements before it which it is absolutely necessary should be enquired into. The minds of the parents of School Board pupils are much exercised on the matter in London and everywhere else; and it is becoming quite the fashion amongst those who attend the out-patient rooms of children's hospitals to put down every sort of ailment to over-study. The doctors, of course, and indeed all who have made up their minds that over-pressure exists as a serious evil, ought to be careful how they play into the hands of the party—still a large though silent one—which believes that the poor are best left uneducated. But no considerations ought to stand in the way of full and free enquiry. The question is a large and pregnant one—one of the large problems which will demand a considerable share of our attention in the future. Hitherto we seem to have been so intent on the hygiene of the body that we have been apt to ignore the hygiene of the mind.

At the Health Exhibition on Wednesday evening, the Society of Arts and the Committee of the Exhibition gave a *conversazione*, which the many thousands who were present will not readily forget. The scene in the gardens with the myriad many-coloured lights, the plash and glitter of the fountains, the strains of the bands, and the crowds moving about under the trees, was as exceptional a one in this country as the evening was exceptional. Everyone was there, though not perhaps in the sense in which that phrase is used in the Society journals. There was genius somewhere at work in the organisation of the *fête*, which has distinctly given Hygeia a lift-up in the estimation of many.

A *matinée*, in aid of the funds of the East London Hospital for Children, was given at the Royal Avenue Theatre on the 26th ultimo. The house was quite full, and there is every reason to believe that a considerable sum of money will be realised. Speaking from a medical, and not from a dramatic standpoint, we are inclined to agree with our contemporary, *The Lancet*, in thinking that incidents in hospital life are at least extremely risky for stage-treatment. Having laid the scene of two acts in "The Accident Room," however, the author showed great tact and good taste in avoiding anything like offensive realism, for there was nothing said or done which could shock the most sensitive. Indeed, in these days when every young lady is supposed to have attended ambulance classes, and to hold a certificate of competency to apply a first dressing to any of the thousand and one accidents which may occur in every-day life, it was somewhat surprising that the audience looked on so quietly while Dr. Bevan clumsily bandaged the supposed lacerated scalp, which applied for help. Sister Grace is a charmingly drawn character, and found in Miss Winfred Emery a very satisfactory exponent. To our thinking Benbow, the old porter, was a most life-like character, no mere creature of the brain, but a type

familiar to most of us ; Mr. Grove's impersonation was perfect. Some of the lay journals appear to have been scandalised by Sister Grace and Nurse Joyce falling in love with the doctor. They appear to have forgotten that among the first qualifications for a good nurse, a gentle and sympathetic disposition ranks high. We ourselves, therefore, fail to see anything unnatural, and far less reprehensible in such a manifestation of character, simply because the woman happens to have charge of a hospital ward. Of the dramatic excellence or failings of the piece we do not presume to speak ; but we regret for its own sake that it was not better stage-managed. A play that can hold the attention of a critical and cultured audience, however friendly, during a hot mid-summer's afternoon, inducing both tears and laughter, in the words of the *Echo*, must be "very much above the average."

The temperature of last week, which was more than 5° above the twenty years' average, sent up the deaths from diarrhœa from 29, the previous week's figure, to 104 (76 of them occurring in infants under one year), but brought down the deaths from measles from 78 to 56, and those from whooping-cough from 80 to 53. The mortality from the other zymotic diseases remained about the same, but the increase under the head of diarrhœa being in excess of the decrease under the heads of measles and whooping-cough, the total deaths from the zymotic class were more numerous than they had been for many weeks, and the zymotic death-rate stood at the highest point it has yet reached since we commenced our weekly chart in January.



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the past seven weeks.

In spite of all this the deaths from diarrhœa were 23 below, and the total number of zymotic deaths was only one above, the corrected average. The total number of deaths—1,508—was 5 above the average, the deaths from respiratory diseases being as many as 30 more than usual in this week of the year—no doubt another result of the heat. The deaths from small-pox were about the same as in the previous week—30 against 29 ; but 266 new cases, said to be of a severe type, were admitted into hospital, and the total number under treatment on Saturday, viz., 1,368, was higher than in any previous return. In the 28 great English towns, both the general and zymotic death-rates showed a rise, the one from 19·2 to 19·5, the other from 3·1 to 3·4. In the eight Scottish towns the process was reversed, for while the general death-rate rose from 20·6 to 21·8, the zymotic death-rate fell from 3·6 to 3·2. The mean temperature in the latter towns was 50·5°, or less than 2° above the average.

Messrs. Bower and Keates are to be the victims of yet another lawsuit, and it is quite possible that the profession may have to subscribe a further sum towards indulging the litigious passion of the prosecuting father. We cannot, and we suppose we must not, enter into the legal subtleties which induced the judges on Wednesday week to grant a new trial. But we may perhaps be allowed to say this, that every man in the profession, and the vast majority of men outside it, will be irritated against the legal system which permits a single individual to expose to such a series of persecutions those who have done so much to serve him and his.

One turns from Dr. Clifford Allbutt's recent gloomy prognostications of the growths and evils of out-specialised specialism, by which he thinks "science loses, practice loses, and the good-fellowship of a great profession is dissolved," to those cheery and invaluable aids by which science gains, practice gains, and the good-fellowship of a great profession becomes built up and indissolubly cemented. We are pleased to learn that the arrangements for the coming re-union of the Members of the British Medical Association at Belfast, are being rapidly and satisfactorily completed, and that everything points to likelihood of the approaching annual meeting in the commercial capital of Ireland being one of the most useful, pleasant, and memorable in the annals of those members of the medical profession who indulge in the luxury and privilege of meeting each other face to face at these yearly gatherings. This is the first visit of the association to the North of Ireland, and we doubt not that it will result in as happy recollections as have been associated with the memory of the meeting in Cork a few years ago.

It is, however, a matter for regret that a phase of the Belfast meeting has attracted an amount of attention altogether out of proportion to its importance. Some weeks ago a series of papers were scattered broadcast amongst the profession in England and elsewhere, and were brought prominently under the notice of several of our contemporaries and the medical public. The objects and motives of the writer of these productions were evident upon the face of them, and were pointed out, and condemned

by the medical press. Unfortunately, denunciation of anything malicious or scurrilous sometimes only causes more importance to be attached to it than it deserves, and we hope that the annotation in the *Lancet* of last week, with the spirit of which we fully agree, will not lead any one to seriously believe that the anonymous author of the abuse levelled against some of our most respected men deserves to be immortalized by an all round criticism by the medical press of the country. Our object in referring to the matter is to state that, having taken the trouble to accurately ascertain the condition of affairs in Belfast, we are glad to be able to say that the result was just what we anticipated. All reports show that the meeting promises to be a great success, and that the very best *esprit de corps* prevails amongst the profession there, and that never in the local history of the profession has there been such a hearty, liberal, and united response to any movement. If it were necessary to quote facts to show the good feeling and sympathy with the meeting which pervades the great bulk of our professional brethren in Belfast and the North of Ireland, we might say that the number of medical men who have already subscribed to the fund for defraying the expenses of the meeting is nearly 200, being not far from double the number of those similarly aiding in a very successful annual meeting of the association held not long since in the centre of densely populated England. It is to be hoped that it is not too late to repair whatever mischief may haply have been done by the circular to which we have referred. We should be very sorry to think that its anonymous writer, who, as far as we can ascertain, expresses the opinion of no one but himself, should have so far succeeded in his object as to prevent any one attending or taking part in the meeting. We hope, however, by stating the plain facts of the case (and this is our sole object in referring to it), that if any member has been influenced by the unfair and ungenerous statement of this unknown writer, he will now know that there awaits for him a hearty and brotherly reception from the united medical profession in Belfast and the North of Ireland.

The passing of Gathorne Hardy's Act of 1867 may be said to have created a revolution in the method of dealing with the sick poor in the Metropolis, providing as it did for their treatment in establishments under separate management, and quite distinct from the workhouses. The various Boards of Guardians have loyally carried out the provisions of the Act, and in all districts of London are to be found parish infirmaries specially designed and erected for the care and treatment of sick paupers, a medical superintendent being in charge of each infirmary. One of the finest institutions of the kind is that provided by the Guardians of St. Marylebone, at Notting Hill, which was opened by the Prince and Princess of Wales in 1881, that occasion being the first on which Royalty has assisted at any ceremony in connection with a Poor-Law establishment. The St. Marylebone Guardians soon found the same difficulty that has been experienced elsewhere, of obtaining suitable trained nurses, of which they require a staff of 56; and finding that the efficiency of the working of their large infirmary was likely to be much impaired by the scarcity of nursing help, decided upon the step, till now novel in Poor-Law administration, of erecting a building as an institution for training nurses. This establishment, which comprises accommodation for 40 probationers and nurses, with every proper convenience for their comfort, and including a lecture room, the cost of which is 1,200*l.*, has been erected adjoining the infirmary, and will be opened by H.R.H. Princess Christian on the 22nd inst. In the regulations for the carrying on of this much needed work, the guardians are acting in connection with the Council of the Nightingale Fund, who are associated with them in this desirable object, the working of which will be watched with great interest by those who know the difficulties connected with the nursing of the sick and infirm who come under the care of the Poor Laws.

At the concluding meeting of the Vienna Society of Physicians, Dr. Julius Wagner, Prof. Leidesdorf's assistant in the Clinic of Psychiatry, showed some cats from which he had removed the thyroid gland. He recalled to the Society the lectures which had been delivered in 1880, by the late Dr. Nathan Weiss, on tetanus after total extirpation of the thyroid gland, and said that as it was known that severe nervous disturbances of various kinds had occurred in persons in whom the thyroid gland had been removed, he, at Dr. Leidesdorf's suggestion, commenced a series of experiments on different animals, to elucidate the point. The animals on which he had operated, whether cats or dogs, did not survive the operation, at the latest, more than eleven days. Most of them were young and did not present any symptoms of disease immediately after the operation, but ten or fifteen hours later the following symptoms appeared: muscular tremor over the whole of the body, especially the extremities, though also visible in the muscles of the head, the ears, and the tongue; epileptic convulsions and tonic spasm; death with symptoms of tetanus. The result of the autopsies was uniformly negative, the recurrent nerves, to the lesion of which tetanus had been attributed, being found quite healthy. The symptoms were similar to those which were to be met after extirpation of the kidney. Two of the animals from which he had removed only one half of the thyroid gland, survived the operation and were healthy. Two of the young cats shown to the Society were affected with muscular tremor, while the third presented symptoms of tetanus; these were cases in which the whole of the thyroid gland had been extirpated. The President, Professor Billroth, remarked that in the human subject such symptoms were, fortunately, not very common after total extirpation of the thyroid gland, and were to be seen only in nervous and hysteric individuals. He had performed the operation under the most difficult conditions; he had removed the thyroid gland from women who had been far advanced in pregnancy without any evil consequence, the women had been delivered of healthy children at full time, and discharged from hospital perfectly well. He had no experience as to the consequences of extirpation of the thyroid

gland in children, but Kocher had observed cases in which nervous symptoms had occurred in children after such operations ; the symptoms consisted, however, only in psychical disturbances, not in tetanus. It might, therefore, be possible that such an operation was only dangerous in young individuals, and that its danger diminished with the advance of years.

In the present rage which prevails for the celebration of the jubilees of persons and institutions, the celebrated hospital of Vienna was not likely to be passed over ; and accordingly the *Wiener Medicinische Wochenschrift* announces that its 100th anniversary is to be commemorated on the 15th August, on which day, the Emperor Joseph II. called it into existence with "*Saluti et solatio ægrorum*" for its motto. We are convinced, says the *Wochenschrift*, that the whole world will send its deputations, for the renown of this great hospital, with its distinguished investigators, professors and medical officers has penetrated to every point of the earth's surface. Its rich material has been spread abroad by thousands who have visited it, and by the books which have emanated from it. The journal, however, has some misgivings whether the occasion will be worthily dealt with.

The *Allgemeine Wiener Medicinische Zeitung* announces that Dr. Bernhard Kraus, its chief Editor, is the recipient of numerous honours in connection with the London Health Exhibition. The Minister of the Interior has delegated him as reporter to the Government on the Exhibition, to which end he is to receive every aid from the Austrian Embassy. The Common Council of the city of Vienna has also appointed him their delegate, and the Doctoren-Collegium has entrusted him with a similar post. "We specify these honours conferred upon our Editor," says the *Zeitung*, "with peculiar satisfaction, and rejoice that so important a trust has emanated from bodies of such consideration." A little strongly worded, perhaps, for the occasion ; but Dr. Kraus is an active and bustling personage who will have plenty to say on the matter.

The post of director of the syphilis wards of the Vienna General Hospital, rendered vacant by the retirement of Prof. Zeissl, has just been conferred on Prof. Auspitz. "We have never doubted, since the declaration of the vacancy," says the *Wiener Medicinische Wochensehrift*, "but that it would be filled up by Professor Auspitz, notwithstanding the number of well qualified candidates. He will now have the opportunity of justifying the hopes and expectations that have been aroused by his appointment."

The Polish Association of Physicians and Naturalists has just held its fourth meeting under the presidency of Dr. Szokalski, at Posen, amidst the warmest congratulations of the Polish inhabitants. Besides the 300 Polish naturalists and physicians who were present, many of whom came from great distances, a large number of Czechs were also present, as well as a deputation of Polish physicians from Berlin.

The International Society of Ophthalmologists has founded a gold medal, which will be awarded for the first time next year to the author of the most remarkable production in the department of Ophthalmology. The committee has taken great pains to ensure its satisfactory execution. On one side is the dedication surrounded by a laurel crown, and on the obverse the portrait of Albrecht von Graefe, 1828–70.

At the commencement of the summer course of his surgical clinic at Kiel, Professor Esmarch unveiled the busts of two of his celebrated teachers and predecessors, von Langenbeck and Stromeyer. He also delivered an address to his class, which he concluded by calling for three cheers for the Nestor of German Surgery, von Langenbeck.

The large collection of busts of celebrated *savants* which adorns the University Library at Bonn, has recently had added to it that of the famous physiologist, Theodore Schwann. His brother, the head of the printing establishment at Dusseldorf, has presented the bust in the name of the family. Schwann was a Rhinelander and a student at Bonn.

The special committee appointed by the Académie de Médicine to prepare a list of candidates for the vacancy among the foreign correspondents in the Section of Surgical Pathology, returned three names, that of Dr. Deroubaix, of Brussels, being on the first line, Surgeon-General Longmore, C.B., of Netley, on the second, and Prof. Macleod, of Glasgow, on the third. When the Academy met for the election, there were 52 members present, of whom 31 voted for Surgeon-General Longmore, 18 for Dr. Deroubaix, and 2 for Prof. Macleod.

The following are the prize-questions of the Academy of Sciences which have a bearing upon medical science : —(1) The Lacaze Prize in the Physical Sciences will consist of three sums of 10,000 francs each, to be distributed in 1885 to the authors of the works or memoirs produced during the preceding two years, which have most contributed respectively to the progress of Physiology, Physics, and Chemistry. They are not to be divisible, and they are to be open to foreigners. "I may in this way," says M. Lacaze in his will, "by the foundation of these three prizes of no inconsiderable value, to be awarded every two years, induce throughout Europe, and perhaps elsewhere, a series of researches in the natural sciences, which are the least equivocal basis for all human knowledge ; and I believe that the decision and distribution of the recompenses by this illustrious body will be an additional title to the esteem and respect which it enjoys throughout the world. If the prizes are not gained by Frenchmen, they will at all events be distributed by Frenchmen, and by the first learned body of France." (2) The Montagne two Prizes for Botany, for 1885, of 1,000 francs and 500 francs, may be bestowed on the authors of works or memoirs of importance, having for their object the Anatomy, Physiology, and Development or the Description of the Lower Cryptogams

Similar prizes may also be awarded in 1886. (3) The Grand Prize in the Physical Sciences, for 1885, consisting of a medal 3,000 francs in value, will be awarded to the author of the best printed or manuscript work On the Intimate Structure of the Tactile Organs in one of the Natural Groups of Invertebrates. The candidates must describe the external conformation of these organs, the mode in which their function is performed, and the internal structure of the terminal portion of their nerves. (4) The Bordin Prize, for 1885, a medal 3,000 francs in value, for a Comparative Study of the Animals of the Fresh Waters of Africa, Southern Asia, Australia, or the Islands on the Southern Ocean, examining also very attentively the zoological relations subsisting between these animals and the marine species which more or less nearly approach them. (5) The Da Gama Machado Prize, for 1885, a medal 1,200 francs in value, will be given for the best memoir on the Coloured Portions of the Tegumentary System of Animals, or on the Fertilizing Matter of Animated Beings. (6) The Montyon Prize or Prizes in Medicine and Surgery will be adjudged annually to the authors of works that exhibit well-defined discoveries of improvement in the Art of Healing, or of means which render an Occupation less Unhealthy. (7) The Bréant Prize of 100,000 francs awaits the discoverer of the cure of Asiatic Cholera, or of the cause of this terrible scourge. The donor, anticipating that his advent was not likely to be immediate, directed that, in the meantime, the interest of the prize should be annually presented to those who advance our knowledge concerning cholera, or any other epidemic disease ; or, finally, to anyone who will indicate the means of radically curing that French pathological puzzle termed *dartres*. (8) The Godard Annual Prize, a medal of 1,000 francs, will be adjudged for the best memoir on the Anatomy, Physiology, and Pathology of the Genito-Urinary Organs. (9) The Chaussier Prize of 10,000 francs will not be awarded until 1887, when it will be given for the best work on Medicine, whether Practical or Legal, which has appeared during the preceding five years. (10) The Dusgate Prize of 2,500 francs, awarded every five years, will be given in 1885 for the best work on the Diagnostical signs of Death, and the Prevention of Precipitate Interments. (11) The Montyon Prize for Experimental Physiology, consisting of a medal of 750 francs in value, is awarded annually. (12) The Cuvier Prize, a medal 1,500 francs in value, will be awarded in 1885 for the most remarkable work either on the Animal Kingdom or on Geology. We have not enumerated the prize-questions for 1884, as all essays, works, &c., have to be sent in before the 1st of June of the respective years.

It may be interesting to quote some figures adduced by Professor Brouardel in proof of the great service the *morgue* may render to medico-legal education. About 1,000 bodies are brought to that receptacle annually. Under his auspices there were performed, in the presence of students, 357 autopsies in 1882, the number of bodies brought in that year having been 960, and, as he observes, more than half the 600, which were removed without the performance of autopsies, would have been capable of being so utilised, including deaths from hanging, drowning and precipitation, and sudden deaths.

A correspondent of the *Scotsman*, writing in view of the advent of the drowning season, advocates a new method of producing artificial respiration, said to have been discovered and successfully practised by a miller on his own son some years ago. The boy fell into the millrace, went under the millwheel, and after being in the water from five to ten minutes, was taken out apparently lifeless by his father, who threw him over his shoulder and ran home with him a distance of eight hundred yards. "With the jolting on the man's shoulders the child's lungs began to play," and recovery ultimately took place. "Were the same means tried for bathers and others apparently drowned," continues the writer, "it would save many valuable lives." We venture to doubt it. If the public cannot or will not master the details of the ordinary scientific methods of artificial respiration, the simplest plan for them would be first to hold the body so that the water may drain from the mouth, and then by rather rapidly repeated pressure on the sternum to favour the entry of air into the lungs.

The *Philadelphia Medical Reporter*, in a recent number, quotes some "rather startling figures," which have been published by the Bureau of Statistics, showing the consumption within the United States of proof spirits, wines, and malt liquors. The figures given exhibit the consumption per head of these articles in 1883, as compared with the average of the three years ending 1878. The increase is returned at 34·40 per cent. in the consumption of spirits, 30·65 of wines, and 77·81 of malt liquors. "Prof. Elliott, of the Treasury Department, estimates the total population in 1883 at 54,163,000. Upon that basis we have for that year a consumption of 10·18 gallons of malt liquors per head, 1·42 of distilled spirits, and a fraction below a half gallon of wine. We here see that in spite of temperance societies, and all the efforts of the prohibitionists, the consumption of all varieties of intoxicating liquor has greatly increased, not only absolutely, but also in proportion to the growth of the population. As a community, as a nation, we are more given to inebriate indulgence than we were five or six years ago."

FOREIGN AND ENGLISH VIEWS OF CHOLERA PREVENTION.

The appearance of cholera in Egypt, and its supposed introduction into the town of Damietta by a fireman of an English steamer, gave rise to a chorus of abuse on the part of almost all the foreign medical journals. Editors in Berlin and Vienna vied with each other in heaping obloquy on us for our disbelief in the efficacy of quarantine. Subsequent experience, and the teachings of those of their own leaders who have taken the trouble to investigate the question more calmly, have considerably modified the tone of opinion with respect to the epidemic which the outbreak at Toulon is believed to threaten. The English view of the question is becoming more and more

appreciated, and Professor Billroth's comforting assurances that hygienic measures are fully capable of checking any outbreak, will go far to allay panic wherever such measures are in force. In Vienna, however, a strong feeling of uneasiness exists, a feeling grounded on the undeniable fact that the "beautiful city" is by no means well prepared to meet contingencies in this respect. "Most of our sanitary laws exist upon paper only in times of peace," says a writer in the *Wiener Medicinische Wochenschrift*; "let us hope that this at least will not be the case when an epidemic threatens." Notwithstanding the reassuring tone of his late speech, it may be noted that Billroth himself felt bound to conclude with the following significant sentence: "Let no one lay the blame upon us doctors if after all the cholera should come; we have given warning enough." Vienna knows only too well the meaning of a cholera epidemic, and a paper published last autumn by Professor Drasche showed in glowing colours the gross neglect of common precautions which has from time to time been responsible for the broadcast distribution of the disease. When the linen of cholera patients soiled with fresh dejecta is deliberately introduced into a public wash-house, no surprise need be aroused by a rapid spread of the disease among the unfortunate servants and washerwomen who are brought in contact with it.

An account of the present position and progress of the cholera appears this week, also from the pen of Dr. Drasche. In tracing the course of events during the last year, he expends a vast amount of holy horror upon the audacity of the English authorities in allowing troopships and others to move from one port to another with cases of cholera on board, and instances the case of the *Crocodile*, which arrived in an "infectious state" at Plymouth, after touching at Malta and Gibraltar. "It is only to be wondered at," he says, "that Europe has not already been infected with the poison." He overlooks the fact that, notwithstanding the enormity of the crime "against all international precautions," no sort of harm has resulted in any of the ports which he names. If ever the cry for universal quarantine be raised again, we may fairly assume that it emanates from some source which recognises its own inability to adopt the precautions of reason and common sense. A marked contrast to its tone of previous years is presented by the *Berliner Klinische Wochenschrift*. There is no longer to be observed the querulous tone of indefinite complaint against the English views which marked the beginning of the Egyptian epidemic, but rather a full recognition of their value, and a determination to act in their spirit in any precautionary measures which may be necessary.

In France it would appear that the English view as to the prophylaxis of cholera has made less progress. It is true that one great authority, M. Rochard, laughs at the disinfecting measures adopted at the railway stations as *chinoiseries*, but at the same time he traces the epidemic at Toulon to the relaxation of quarantine regulations at the time of the Alexandria bombardment, and says nothing about those home measures of hygienic reform which, according to the English view, would, if strictly carried out, render the importation of cholera from abroad a matter of comparative unimportance. The childishness of the views held generally in France as to the prophylaxis of cholera are well expressed in an old quatrain which is quoted in a French paper:—

Tiens tes pattes au chaud,
Tiens vides tes boyaux,
Ne vois pas Marguerite,
Du choléra tu seras quitte.

The lines, no doubt, embody excellent advice, but, unfortunately, personal precautions are useless in the midst of collective neglect. The French, indeed, appear to rely too much upon the efforts of the central Government, and the carefulness of the individual; they trust everything, as it were, to the general in command and to the private, forgetting that if cholera is to be kept at bay it must be by the efforts of subordinate officers and separate battalions working together in harmony. In other words, it is on the local authorities that the successful prevention of cholera depends. The State has an important function in keeping them up to their work, but without their cordial co-operation it is helpless.

A TAX ON FOLLY.

That the tax on patent medicines is to all intents and purposes a tax on folly will be generally admitted by those to whom this journal is addressed. The tax, of course, comes out of the pockets of the consumers, and a man or woman who habitually consumes remedies of which he knows neither the composition nor the mode of action, can hardly expect to be excluded from the category of fools. There are, it is true, one or two well-known patent medicines which, by their proved efficacy in certain cases, have raised themselves out of the ruck of common nostrums, and are occasionally prescribed by the faculty, who are practically familiar with their composition and mode of action, and perfectly realize the limits of their usefulness. But even in the case of these, the patient who administers them to himself can hardly be acquitted of an act of folly. It is common even for doctors to blunder through their credulousness as to the efficacy of drugs, and it is not to be expected that a layman, utterly uninstructed in the limitations of the drug-cure, should be able to use or recommend medicaments without danger to himself or his friends. The strange thing is that, with folly so rampant, the Government should receive but little more than £150,000 a year from their taxation of this special form of it. If folly were taxed all round the National Debt would soon, doubtless, be as extinct as the Dodo; but the Government has elected to tax only one sort of folly, and the question is whether it is worth while retaining such an anomaly for so paltry an addition to the revenue. There are many good reasons why the patent medicine duty should be abolished, and a simple Act passed, obliging all makers of secret remedies which contain poisonous ingredients to state on their wares the name and quantity of such poison or poisons, and bringing all such remedies within the provisions of the Poisons Act. That a fatal quantity of poison can now be bought under the guise of patent medicine by anyone who chooses to apply for it, and that without complying with any of the provisions by which the

sale of other poisons is regulated, is one of the crying anomalies of the present system, and one which demands speedy legislation, even if the Government cannot see their way to repealing the duty altogether.

There are, however, as we have said, good reasons why the patent medicine duty should be swept at once and for all into that limbo of defunct duties of which it is the solitary survivor. In the first place the stamp of the Government is misleading. It is well known that many ignorant persons are betrayed by it into believing that the Government vouch for the efficacy of the remedy to which it is attached, and some of the manufacturers of secret medicines have not scrupled to make capital out of this ignorance. There is no reason on earth why the interests of the *soi-disant* discoverer of a specific remedy should be granted greater privileges than the concoctors of other secret preparations not medicinal. When faith in the virtues of unknown drugs and combinations of drugs was general, there might be some excuse for encouraging the invention or discovery of nostrums, but now that more rational views are held as to the efficacy of remedial agents, both singly and in combination, the State ought not to go out of its way to give a special imprimatur to quack drugs. It ought rather to encourage amongst all classes the adoption of that principle of ethics which is so firmly held in the medical profession, viz., that the discoverer of a useful remedy is bound by his duty to humanity to make known his discovery to all the world. Another reason for repealing the duty is, that it takes twice as much out of the pocket of the consumer as it puts into the pocket of the State. The manufacturer, the wholesale, and the retail dealer, must all have their profit on the value of the stamp as well as on the value of the medicine, so that for every three-halfpence accruing to the State, the purchaser probably pays as much as threepence.

If these general considerations, however, are not sufficiently forcible to impress the powers that be, there is another argument derived from the recent action of the Inland Revenue department, which will perhaps have more weight with practical politicians. This department, which if it had the power would not scruple to tax the very air we breathe, has obtained a decision in the Law Courts in regard to the schedule of the Patent Medicines Act (52 Geo. III, Cap. 150), which practically reduces the Act to an absurdity. In this schedule "foreign medicines of all kinds, except drugs," are distinctly mentioned as coming within the provisions of the Act. Until lately a liberal interpretation has been extended to this formula, but it has recently been decided that by "drugs" only crude drugs are meant, and the Inland Revenue officials accordingly hold that all tinctures, liquid extracts, pills, and active principles prepared out of this country and its dependencies cannot be sold or exposed for sale unless they have paid the Government duty and bear the Government stamp. The practical result of this has not yet been widely felt, but unless the Government is speedily induced to control the activity of its subordinates, doctors will soon find that they are debarred, by that professional rule which rightly forbids them to prescribe patent medicines, from using many remedies the value of which is generally admitted. All the preparations which are imported from Germany, France, and America, will be henceforward "tapu" to us, unless we are content to break the unwritten law that forbids us to use patent remedies. Some of the preparations in question, can only be prepared from fresh plants, and to place a stamp duty on all of these will simply be to prohibit their use entirely; while in the case of others in which the dried flowers, leaves or root can be used, to favour English preparations at the expense of foreign ones, may delight the hearts of those who yearn for protective duties as a means of encouraging native industry, but was hardly to be expected under the *régime* of the present Government. We have no doubt that the obnoxious clause will be repealed, or that a timely hint will be given to Somerset House to moderate its ardour, as soon as the real working of the new interpretation is made plain. At the present juncture the Government can hardly afford to lay itself open to the taunts of the Opposition for covertly encouraging protective duties.

It is obvious, of course, that the recent legal decision bears most hardly on the large American wholesale houses who have lately brought so many new drugs to our notice. These drugs, as a rule, have no doubt failed in English hands to justify the loud encomiums with which they have been ushered in. The number of them which will eventually be thought worth a place in our pharmacopœia is probably very limited. But in any case, it is right and proper that they should be thoroughly and openly tried, and the sooner they find their proper place the better. If they are worth anything —we are speaking now of those which can be made from fresh plants—it is not right that we should be debarred from using them, as we shall be if they are to be liable to the stamp duty. If they are worth nothing, the conversion of them into patent medicines will only give them in many eyes a mystery and a prestige which they do not deserve, and prevent them from falling into that desuetude which, stamp or no stamp, will be their ultimate fate. We trust that the effect of this new interpretation of an antiquated measure may open the eyes of the Government to the necessity for enquiring into the whole question; and for our part we shall not be sorry if the result of their enquiries should be the abolition of a duty which we think we have rightly called "a tax on folly."

GUESSWORK: ITS USE AND ABUSE.

Guesswork is very universal in its application. It may be defined as the formation of an opinion on grounds insufficient for certainty. Its use frequently seems to arise from a morbid attempt to obtain credit for almost superhuman penetration, by presenting a rapid solution of a difficult question. Innocently amusing at times, its employment occasionally becomes serious, and may lead to disastrous results. Although it is to be met with in every phase of life, it is perhaps most frequent and most annoying in the realm of popular medicine Most people among the laity delight in jumping at a conclusion as to the nature of an illness, the modern development of descriptive bulletins appearing in some measure to result from this craving. Diagnosis,

ætiology, prognosis, and treatment are guessed at in turn, and the last is mercilessly criticised, should it not harmonise with experience under perhaps totally different circumstances. To those prone to thus giving their opinions every articular swelling is gout, every aching pain is rheumatic, and all cases of both should go at once to some pet watering-place, if they wish to be saved life-long torments. Guesswork in medicine is not, however, confined to these advisers who, perhaps, do little good or harm, beyond tending to unsettle confidence in the medical attendant. It exists in all its glorious simplicity as the method employed in "counter prescribing." *Rien n'est sacré pour un—pharmacien.* Cough mixtures, originally evolved perhaps by titled physicians for titled patients, are often dealt out indiscriminately for any form of pulmonary, gastric, or hepatic trouble manifesting itself by a cough. The least hint of the source of the combination casts a halo around the precious bottle, which might cure almost anything by its moral effect. The chemist comes in for his share of reflected light, and his books are revered as containing the results of years of study on the part of the physician. They are mines of wealth and health, which, in judicious hands, give out their treasures without the painful formality of sitting in a consulting room for hours, and paying the exorbitant fee exacted by custom. So long as every one is satisfied, little can be said except on moral grounds against this rough-and-ready prescribing. The money expended thus is mostly the fair equivalent for the advice given. Prescriptions are, however, like complicated pieces of machinery; they work efficiently when guided by the master-hand, but they may refuse all action, or may lead to irreparable damage, when ignorantly meddled with. Sometimes we meet with individuals who glory in their rude health sufficiently to enable them to make disparaging remarks on their well-meaning chemist; in a document recently brought under our notice this proud statement occurred, "I have no medical attendant; I generally go to a chemist, my health requiring no further skill." Rude and ungrateful, but true in regarding counter-prescribing as mere guesswork from beginning to end. The sick person makes the first guess as to the nature of his complaint, and puts the result in the form of an original proposition. The chemist makes the second guess from the data thus given him, and his answer takes the form of mixture, pill, or powder. With a few exceptions, as in "Alice in Wonderland," most propounders of riddles have the advantage of knowing whether the answer given is right or wrong; here it is a case of *fiat experimentum*, the chemist's patient tests the correctness of the solution by practical experience, and, if this proves to be unsatisfactory, he has the melancholy consolation of believing that the prescription employed was full of potential energy, but did not suit his case, turning like a lion from an unworthy prey.

From what has been said of this simple form of guesswork, it must not be imagined that its employment is universally reprehensible, or that its use is purely confined to the outskirts of the medical profession. It resembles alcohol in being widely used, often to excess, and so much abused that in the torrent of invective its true work is apt to be overlooked. It is misused when it is forgotten to be a mere guess, and when we act on the assumption of its being a proven fact. Every great scientific theory has commenced in a guess, or, to speak of it more respectfully, a flash of genius or inspiration. That theories, medical or otherwise, are merely convenient guesses at truth, to be employed as working hypotheses, liable to modification or rejection as further facts are brought to light, essentially forms the distinction between a scientific and an unscientific guess. Every diagnosis is at first more or less of a guess.

The original guess may be raised to a high condition of probability by the course of disease, by alterations of temperature, the development of physical signs, the appearance of a rash, &c., but frequently these may be misleading, and absolute certainty can be obtained only by *post-mortem* examination. A riddle may have numerous answers besides the right one; in disease, a consideration of the same data may lead to a dozen different conclusions. It would be painfully interesting if the commentaries, written by the candidates at such an examination as that for the London M.D., were published collectively. It is notorious that the diagnoses arrived at from the same facts vary considerably, and much ingenuity must be expended in endeavouring forcibly to twist these stubborn articles into a pillar of strength, in which, it may be, every particle is proclaiming its protest against misuse. In the examinations of our daily life, however, guesswork must always play an important part, its value depending largely on the degree of flexibility exhibited by the medical man. He who starts with a wrong diagnosis, and refuses to modify his originally expressed opinion, in view of fresh facts, will more certainly lose the confidence of his patients, than he who frankly admits his error. Guesswork, invaluable as an aid when scientifically used, only becomes a direct evil when it leads to an uncompromising dogmatism.

REVIEWS AND NOTICES OF BOOKS.

Transactions of the Epidemiological Society of London. New Series. Vol. II. London: David Bogue. 1883.—Several of the papers have been already fully reported and discussed in our pages, as that of Dr. Norman Chevers, on the Site of London, and that of Surgeon-General Cunningham, on Indian Epidemics. Sir G. Smart's account of the so-called Epidemic Diseases of Seamen is of no small historical as well as medical interest. The report of Dr. Seaton, on the Influence of Small-pox Hospitals on the Propagation of the Disease, founded on an enquiry into the outbreak at Nottingham, is a masterpiece of judicial impartiality, and deserves careful study as showing how a distribution of cases, due to importation and other causes, may simulate extension from a hospital though clearly independent of it. But the most important contributions are those of Surgeon-General De Renzy, C.B., and Dr. Ewart, who take for their respective themes the state of the British troops, and of their families in India. Surgeon-General De Renzy's especially is calculated to moderate the exaggerated ideas entertained in many official quarters, as well as elsewhere, of the results of the sanitary improvements that have been carried out at a cost of

several millions during the last twenty years, in consequence of the Report of the Royal Commission, which was published in 1863. The death-rate of the British troops during this period averaging 25 per 1,000, and only once rising above 31, has been exultingly contrasted with the 69 per 1,000 from 1800 to 1856, as showing an annual saving of life to the extent of 44 per 1,000, forgetful of the facts that the former period included a long succession of hard-fought and bloody campaigns, while the latter, commencing just when the effects of the hardships undergone during the mutiny had worn off, has, with the single exception of the last Afghan wars, been one of uninterrupted peace; that the proportion of troops invalided to Europe annually has increased from 28 to 40 per 1,000, and of those stationed in the hills from 12 to 26 per cent. But as Mr. De Renzy shows, the deaths from cholera, fever, dysentery, and diarrhœa, constitute 47 per cent. of the whole, and if we exclude these, occurring for the most part as epidemics, the death-rate in time of peace will be found after all to have been very little reduced. The persistence of their influence is seen in the wide fluctuations observed in the death-rates of particular stations in consecutive years, fluctuations not met with in towns whose sanitary condition is satisfactory. Thus at Morar we find a rate of 12 per 1,000 immediately followed by 65, at Allahabad 16 by 55, and at Peshawur 3 by 141. The truth is, that while new barracks have been erected regardless of expense, and no pains have been spared in the improvement of the soldiers' accommodation, food and general comfort, the sources and storage of the water supply have most unaccountably been neglected, and are nearly everywhere as bad as can well be conceived. What the causes of pollution are, all who have any acquaintance with Indian life know too well; they are, as the Commissioners themselves admit, "such as are usually met with among uncivilised and semi-civilised people," but which would not be tolerated for a day in the most poverty-stricken village in Europe. In two places, as if by way of experiment, a pure water supply has been introduced with results striking enough to convince the most incredulous. Bombay, from being one of the most unhealthy, has become one of the most healthy cities, and the European community has long enjoyed an almost complete immunity from cholera; even in Calcutta, though cholera still prevails among the natives who use the old sources, the Europeans have entirely escaped the late epidemic, and in Fort William, than which a more naturally unfavourable site could not be imagined, the death-rate of the troops, which had long averaged 69 and had latterly risen to 102 per 1,000, has, since the water was laid on from the new works, sunk to 10·6 per 1,000. Yet a long succession of directors-general and principal medical officers, from Morehead and Beatson to Muir and Cuningham, persistently refuse to see any connection between water polluted with sewage and insufferably hot, and the prevalence of disease. Dr. Ewart's figures present an appalling picture of preventible disease, the more painful to contemplate because the causes of this slaughter of innocents are more complex, and therefore not so easily obviated, even if the authorities could be brought to a sense of their duty. The mortality among soldiers' wives in India now averages 24 per 1,000, against 8 in England; of this 24 more than half are directly, and a further number remotely due to diseases peculiar to tropical climates, while their children, taking all ages together, die at the rate of 66·8 per 1,000, and those of soldiers at home at 27·4 If we take infants under five years only, the mortality varies from 87 to 138. Yet in the European Female Orphan Asylum at Calcutta, the Lawrence, and other schools, may be seen children as robust, healthy, and ruddy as any in England. In fact, though it is probable that those who remain in India through the period of puberty have less physical and moral vigour than those who are sent home, there is little doubt that up to six, eight, or ten years, the conditions of well-regulated life in India are even more favourable than in England. Improper feeding and general mismanagement of their infants by debilitated mothers, living amid surroundings in every way unfavourable and depressing, are the causes of a mortality which cries aloud for the most serious consideration.

The Leamington Waters; by F. W. Smith, M.D. London: H. K. Lewis. 1884.—There can be no doubt about the reality of the reaction which sound common sense has caused of late years in favour of the English Mineral Spas. These health resorts, which had been too much neglected during the last thirty years—the prevailing fashion having filled the Continental Spas with English invalids—appear now to be about to regain all their old popularity. And to this revival of prestige there is no valid reason why "leafy Leamington," with all its advantages of situation and surroundings, should be an exception. At any rate, such a work as that by Dr. F. W. Smith, following closely upon the article in our own columns (of April 12th) by another Leamington physician, must be commended as opportune in conception, and as supplying a well-recognised want, since no treatise upon the once famous mineral waters of Leamington has seen the light since 1843. Dr. Smith's little work of sixty pages is dedicated to the Medical Profession; but it will be of almost more utility as a guide to the general public, since the medical uses of the waters are necessarily, in a work of these dimensions, but superficially considered. From a literary point of view, it is not remarkable for elegance of style or diction, but it represents, no doubt, much labour and honest investigation.

On Insanity and Nervous Disorders Peculiar to Women. By Thomas More Madden, M.D.—In this pamphlet is reproduced the substance of previous papers by the author, the purpose of which was to call attention to the increasing prevalence of mental and nervous disorders, especially amongst women, and to describe the character, causes and treatment of these affections. Secondly, to point out that many persons who are not mad, but who are merely suffering from the reflex nervous consequences of unrecognised and curable utero-ovarian disease, are improperly confined in lunatic asylums. And thirdly, to suggest as a remedy for this abuse (1) That in future certificates of insanity should be given only by specially appointed Medical Inspectors of Lunatics; (2) That private lunatic asylums should be abolished as such; (3) That all patients in lunatic asylums should be treated by extern or visiting physicians. The whole of this somewhat extended programme is discussed in some seventeen pages, and in a style that is adopted and appears to be intended more for the less intelligent section of the laity than for professional readers. The positive teaching of the pamphlet is superficial, pretentious and bad, and the introduction of cases of marvellous recoveries of the author's patients is in very dubious taste.

A Statistical Inquiry into the Nature and Treatment of Epilepsy; by A. Hughes Bennett, M.D. London: H. K. Lewis, 1884.—This consists of a reprint, with only slight modifications, of three papers which have appeared in one or other of the medical journals during the last few years. The first deals with the subject of ætiology, the second and third treat of the use of the bromides in epilepsy The first is not a paper that lends itself readily to criticism, but it is evident that it is based upon patient and long continued clinical observation. The general results arrived at in the other papers are to the effect that in a very large proportion of cases (nearly 95 per cent.) the bromides either cure epilepsy or have a decidedly beneficial effect, and that their prolonged use does not seem to be productive of toxic effects in the epileptic; at any rate they are much better tolerated by epileptics than by healthy people.

Diabetes Mellitus; by Harvey J. Philpot. London: Sampson Low, Marston, Searle, and Rivington, 1884.—When a man writes a book on a special subject like the present, we think the least he can do is to have something new to tell us, either in reference to causation, pathology, or treatment. Even if his facts have not been well observed, and his conclusions are hasty, still there is some excuse for him. But the author of the work under consideration tells us in his preface that he has no new facts or new views to give us, and that his work is merely a summary of what is already known, and he offers neither apology nor excuse for

adding one more to the ever increasing number of books that had better not have been written, or at any rate published. In a series of Diet-rolls for diabetes, gout and dyspepsia, Mr. Philpot has endeavoured to direct the treatment of patients on alphabetical principles. All we can say for them is, that if the dyspeptic can cure himself by following the directions and selecting his diet from the list given him he will be a cleverer man than most of the patients that we are accustomed to deal with.

ABSTRACTS AND EXTRACTS.

DERMATOLOGY AND SYPHILIS.

Paget's Disease of the Nipple.—Dr. Sherwell, of Brooklyn, New York, after narrating (*American Journal Medical Sciences*,) two cases of this disease which have occurred in his practice, enumerates what he regards as its diagnostic signs: 1. The subjective symptoms, as itching, burning, &c., are the symptoms of eczema and not those of ordinary cancer, but they are much more marked than in ordinary eczema. 2. Of the objective symptoms, the discharge resembles and comports itself just as in eczema, although the colour of the surface is, perhaps, occasionally more livid. Sir James Paget compares the appearance to that of balanitis—an excellently apt illustration. 3. The term applied by Mr. Henry Morris to the disappearance of the nipple, as a "melting away" best describes its gradual obliteration. "Certainly, nothing like rapid ulceration takes place in typical cases, scarcely what could be signified by the name of erosion. It disappears." 4. The retraction of the nipple or tissues immediately beneath, if retraction there be, is not to be distinguished as such, as is so easy in ordinary cancer. 5. "The 'malignant papillary' feature, as described by Thin, was a marked feature of my first case, but much less so in the second. It is a very diagnostic point, and would of itself, I think, instantly resolve any doubt as between Paget's disease and a true eczema." 6. "The extreme length of time may be cited in my cases before the appearance of anything like positive evidence of carcinoma. Sir James Paget gives the limit as to this of two years. In my first case twelve years elapsed from the beginning of the attack to death, this not seeming in any way connected with the skin lesion. In the second case considerably over the time mentioned by him was passed." Dr. Schweinitz also gives (*Philadelphia Medical News*, February 2nd) a minute account of a case of this disease, accompanied by microscopical illustrations, together with a complete list of other reported cases. From these he considers himself justified in inferring: 1. The malignancy or malignant tendency of the disease. 2. The tendency of the changed epithelium of the ducts to travel downwards, and produce carcinoma of the breast. 3. The propriety of excising a breast thus affected before any tumour of the gland itself can be detected.

The Curative Effect of Acute Febrile Diseases upon the Throat Lesions of Congenital Syphilis.—Dr. J. N. Mackenzie, who in 1880 called attention to the comparative frequency with which the throat is involved in congenital syphilis, now publishes a paper (*New York Medical Journal*, May 31), in which he states that while such pharyngeal ulcerations are usually most stubborn in their refusal to heal under treatment, "they sometimes cicatrise, as if by magic, on the accession of an acute disease." He refers especially to scarlatina, measles, and chicken-pox, blood diseases which have special tendencies to local manifestations in the throat, and which in themselves "present a certain analogical resemblance to syphilis." He also holds that in children the existence of syphilis appears to mitigate the severity, and favourably to influence the course of these maladies; and that they are more prone to be contracted during the period of latency—"the sleep of the virus"—of congenital syphilis. On the other hand, the virulent influence of the diphtheritic process appears to be aggravated by the co-existence of a syphilitic taint. The modification which an intercurrent febrile affection seems apt to exert upon the manifestations of constitutional syphilis, leading to their more or less permanent dissipation, or to their intensification, has received some attention, chiefly from the syphilographers of the French school. Thus, cutaneous syphilides, exostoses, and ulcerations have been noted as disappearing during the course of erysipelas, acute rheumatism, cholerine, variola, febrile furunculosis, vaccination, and also during pregnancy. Hence originated from time to time the suggestions as to the artificial production of erysipelas (Sabatier, 1831), vaccination (Luconski), and even of small-pox (Garrigue, 1870), as therapeutic agents in the treatment of obstinate cases of the disease. While believing that a reciprocal antagonism exists between the poison of syphilis and that of a number of acute diseases, especially with respect to inflammation and ulceration of the naso-pharynx, Dr. Mackenzie also affirms that simple catarrhal inflammation of this region "occasionally disappears completely and is permanently cured during the course of an acute febrile disease."

The Ætiology of Eczema in Early Childhood.—Eczema in early childhood has hitherto generally been considered to be a manifestation of scrofula, as in many cases it undoubtedly is. Dr. Bohn, however, asserts that neither scrofula nor rickets can be considered to be the cause of the numerous cases of eczema of the head and face that occur in children during their first few years of life, especially as the great majority of these cases occur in infants not six months old. Most of these children are particularly well nourished, and appear to be otherwise in perfect health. Dr. Bohn asserts that the only general statements he can make about them are, that they are usually constipated, passing hard yellow or white stools, and that they are all too fat and have fatty livers. The treatment he recommends is based on these observations; the first step is to cure the constipation, the second to regulate the diet so that an excess of fat or fat-forming food shall be avoided, *i.e.*, the substitution of animal broths for some of the milk. The eczema should be treated locally in the usual manner.—*Jahrbuch für Kinderheilkunde, Band XX., Heft I.*

An Elastic Skin.—In the *Philadelphia Medical News*, an account was lately given of a German in one of Dr. Dühring's wards in the Pennsylvania University Hospital, who is designated as the "elastic-skin man," and who is probably the same person who was last year in the Vienna Hospital, and who has been exhibited in England. The skin seems normal in appearance until it is touched, when it is found highly extensible and elastic over the entire surface of the body. For example, it may be drawn from the sternum almost over the entire face, or from between the scapulæ over the back of the head: and when it is let go it flies back to its place. It is more elastic when drawn transversely to the natural lines than when drawn parallel to them. The skin is extremely soft, and none of the movements made with it give any pain. Pulling it out and holding it in front of a light, the circulation in it is beautifully seen. The condition is congenital, and is supposed to be due to the absence of subcutaneous connective tissue; but it is a question whether this is not present and attached to the fasciæ of the muscles instead of to the corium.

Glycerised Iodine as an External Application in Small-pox.—Dr. Bartholou, an army-surgeon, relates in the *Lyon Médical*, February 3rd, some additional cases, in order to show the great advantage which may be derived in very bad cases of small-pox, by painting the surface with the following mixture:—tincture of iodine 30 parts, glycerine 60 parts, and iodide of potassium ¼ part. The application is not unpleasant to the patient, and may be made from the fifth or sixth day of the eruption to the eleventh or twelfth. During this period, it is repeated four times daily, and powerfully contributes to the absorption of pus, and the desiccation of the pustules, after which it is discontinued.

REPORTS OF SOCIETIES.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JULY 3RD, 1884.

JONATHAN HUTCHINSON, Esq., F.R.S., President, in the Chair.

Cases of Retro-ocular Neuritis.

MR. NETTLESHIP read a paper on some cases in which acute inflammation seemed to take place in some small part of the course of the optic nerve. They were characterised by failure of sight in one eye, often accompanied by neuralgic pain in the temple and orbit, and pain on moving the eye. The disc often became more or less atrophic in a few weeks; the result was variable from complete recovery to total blindness. Two illustrative cases were quoted, the first being that of a lady, aged 34, in whom an attack of central amblyopia in the right eye was associated with pain in and around the eyeball, and followed by pallor of the disc. The patient had previously suffered from sciatica and several of her relations had had gout or arthritis. The second case was that of a man, aged 50, who had rapidly and completely lost the sight of his right eye, and who presented no sign of cerebral disease; there was no evidence of syphilis or gout, the only thing being that some time previously the patient had had diplopia from paresis of the right inferior rectus. The failure of sight was usually at its worst in three days, except in the most severe cases; recovery when complete usually required about six weeks. The pain, which was often circumorbital, began before the dimness of vision, and there was a sense of stiffness on moving the eye quickly. In the majority of cases examination of the field of vision revealed the existence of a central defect; sometimes the field was contracted, at others this sign was absent. Changes in the disc were by no means constant, even in the worst cases. The cases had to be distinguished from embolism of the central artery, from progressive atrophy where one disc was affected before the other, and from uniocular neuritis due to disease of the corresponding lobe of the brain. The greatest difficulty would be to distinguish them from the rare cases where a single violent papillitis occurred with severe localised pain. In some of his cases the symptoms might be explained by a periostitis of the optic canal; in others the mischief could not have been so far back; in some a rheumatic origin seemed probable. The majority of the patients were between 25 and 40. At least five of the twenty-four had had syphilis, and there was a good probability of it in six others. In four cases the affected eye became permanently blind; in eight more or less damage was done; twelve (exactly half) recovered.

The PRESIDENT said that Mr. Nettleship had dealt with an interesting and obscure subject in his very able paper. He had himself seen only one case of this class. The patient was a young lady with a marked arthritic history; one eye only was affected, and became quite blind, but without much pain; subsequently there was slight papillitis; the patient ultimately recovered, almost completely; three years later she had a threatening of the same condition in the other eye, but recovered completely. He believed that in this case the loss of vision was due to a gouty inflammation of the optic nerve.

Dr. STEPHEN MACKENZIE asked if the blood had been examined, because in leucocythæmia papillitis and a diffuse inflammation of the retina occurred, and had been ascribed to thrombosis of the orbital veins. Thrombosis might explain some of Mr. Nettleship's cases. It was known that after some fevers, typhoid especially, thrombosis was liable to occur, so it was important to know how long after the fever in these cases the symptoms had appeared. He did not think that all the cases belonged to one group, they ought not to be referred to the arthritic diathesis without very good evidence.

Dr. C. E. FITZGERALD had seen, about two years ago, a young lady who had dimness of vision on the left side. There was no ophthalmic abnormality beyond some haziness of the margin of the disc, but there was some pain on movement of the bone. Under treatment vision was completely recovered; but the symptoms recurred in a few months, and later the right eye was affected with intense neuritis, and the patient lost power in the right leg and arm. The nature of this hemiplegia was very obscure, and but for the neuritis would have been considered hysterical. Subsequently the neuritis subsided, and she began to recover; the vision of the left eye returned almost completely. The patient gave a history of some rheumatic trouble.

Mr. NETTLESHIP said that the blood had not been examined, but the patients were not anæmic, nor in a bad state of health. In all of the cases in which the conditions came on after fever the interval was not great—not more than a few weeks. In one instance the fever was either typhoid or malarial fever, and the loss of vision came on within a month. He believed that the cases were probably not all of the same nature. In very bad cases it was probable that there was periostitis of the optic canal; in slighter cases there was probably neuritis only, whereas in others there were, perhaps, small gummata on the optic nerve; this, however, was only conjecture.

Central Amblyopia.

Mr. LAWFORD read notes of a case of central amblyopia coincident with peripheral contraction of fields. The patient, a lad aged 18, noticed failure of vision about five weeks after a fall. He also had some general nervous symptoms, for which he was an in-patient at Guy's Hospital. The central scotomata, at first absolute for form, became, as recovery progressed, scotomata for colour only. Eventually, perfect acuity of sight was attained, and the limits of the fields of vision became normal. The other nerve-symptoms also disappeared in the course of six months.

Sympathetic Ophthalmitis.

Mr. W. ADAMS FROST read a case of sympathetic ophthalmitis subsequent to the excision of the exciting eye. A man, aged 25, was admitted into St. George's Hospital, on November 3rd, 1883, for iritis of the right eye. There was no history of syphilis or rheumatism; and the patient traced the commencement of the affection to some hair entering the eye while he was clipping a horse a month before admission. There was conjunctival and ciliary injection, and on the inner side a few vessels encroached on the cornea. The lower half of the cornea was thickly studded with punctate opacities, and there were numerous posterior synechiæ. Tension was normal. A week later, there was slight prominence of the ciliary region above, and an upward iridectomy was performed. The staphyloma increased in size; the eye became very painful, and the anterior chamber shallow. On December 15th, iridectomy downwards was attempted, but no iris was removed. The pain being severe, the eye was enucleated on February 2nd, the left eye being then normal; but, five days later, slight conjunctival injection and punctate opacities on the cornea were noticed, but neither pain nor tenderness. Atropine, exclusion of light, and pilocarpine injections were used. On March 19th, there was a single fine posterior synechia. The cornea was clear. $V = \frac{6}{6}$. The globe of the excised eye was bisected, and one half was

mounted in glycerine jelly. The other half was examined microscopically by Mr. Jennings Milles (the microscopical sections were shown at the last meeting). He reported that the ciliary staphyloma was formed by a nodule consisting of inflammatory cells closely packed. The sclerotic over this was much thinned. The iris was firmly adherent to the lens, and its parenchyma infiltrated with small round cells. The choroid was thickened in its whole extent, especially in the region of the papilla.

Mr. NETTLESHIP asked whether it was possible that any hairs had penetrated the cornea, and mentioned a case observed by Pagenstecher, in which the centre of a peculiar growth on the surface of the iris was found to be occupied by some hairs of an insect.

Mr. FROST, in reply, said there was no mark of any corneal wound, and Mr. Milles had found no particles of hair; but that the case was not seen till a month after the accident, and small particles might easily escape notice. The patient himself connected the entry of the hair into his eye with the occurrence of the inflammation in the most positive manner.

A Remarkable Case of Proptosis.

The PRESIDENT showed some photographs of the patient whose case he proceeded to narrate. The patient was a Hindoo gentleman, who came to him for extreme proptosis of the left eye, having not long before lost his right eye from a similar affection. The eye was extremely protruded, mostly downwards, and the lower lid was everted. The movements of the eye were not much interfered with, but there was a good deal of chemosis. The edge of the lacrimal gland, which was greatly enlarged, was felt on a level with the upper margin of the orbit. The upper lid hung loosely, but the lids could not be closed. The face was puffy, especially in the parotid region, and under the jaw. The other eye had been attacked in a precisely similar manner about three years previously, and after varying for two years had finally become so prominent, that a few months before he came under observation the lacrimal gland had been removed, as also a firm lobulated mass which occupied the upper and outer part of the orbit and turned out, on microscopical examination, to be composed of fibro-adipose tissue; suppurative inflammation, set in after this operation and the eye was lost. Within a few days of this time the hitherto healthy eye became protruded, which naturally greatly alarmed the patient. As in the case of the other eye, there had been variations in the degree of proptosis, and looking to the ill effects of operative interference in the other eye, it was decided to try the local application of ice. This was sedulously applied to the eye, to the forehead, and to the nape of the neck for a week without intermission; the patient at the same time took small doses of iodide of potassium. At the end of this time there was a decided improvement, the ice was continued for some time longer and after a time mercury was given in combination with the iodide. The result was that the patient was practically cured, and had since remained well. In reference to the nature of the case it was pointed out that the enlargement of the lacrimal gland could not be regarded as in any way causal, it was coincident but nothing more. There must have been some swelling of the fibrous or fatty contents of the orbit which caused the protrusion; whatever it was, it was capable of spontaneous diminution, it was prone to relapse, and was, as well as the enlargement of the various glandular structures, under the influence of iodide of potassium. Malignant disease could be negatived from the fact that there had been no recurrence in the eye first affected. The disease was analogous he believed to a group that had been described by Brodie, and more recently by Mr. Morrant Baker, where there was a tendency to the formation of ill-defined, but more or less lobulated masses of fibro-fatty tissue in the region of the neck, but in none of the cases that he had seen was there proptosis or enlargement of the lacrimal gland, though he had in one case found enlargement of the parotid gland in association with fatty masses in the neck, Though the condition was remarkably local it was not one of new growth, but rather of hypertrophic development, there being no tendency to general obesity, He suggested that one reason why glands of different function should be associated in the enlargement, was that the hypertrophy was due rather to increase of the connective tissue elements than of the gland structure itself. Exophthalmic goitre might possibly be a member of the same family, and he noted that his patient was excitable to the verge of insanity. In conclusion he pointed out that these fatty outgrowths underwent great changes in connection with the state of health of the patient, and that much benefit was often derived from change of air.

Dr. STEPHEN MACKENZIE asked whether any change had been found in the thyroid body or any pulsation in the vessels of the neck, or whether palpitation or evidence of disturbance of the heart's action had been observed. Mr. Hutchinson's case had some alliance apparently with Graves' disease. The primary cause of the proptosis in that disease was overgrowth from over vascular supply, and it was well known that ice was useful in diminishing the vascular disturbance, and reducing the proptosis. It was therefore interesting that ice should have had so marked an effect in this case, as, though the patient was also taking iodide of potassium, it was evident that a great deal of the benefit was due to the ice. He asked as to what the dose of the iodide had been. As regarded the enlargement of glands of different functions, he pointed out that a wide spread vascular disturbance of nervous origin would account for such a state.

Mr. GEORGE WALKER had met with a curious case of proptosis in a woman who was violently struck on the eye. He found that by compressing the carotid, the proptosis was diminished, the discomfort decreased, and the circulation in the arteria centralis retinæ stopped. He attributed this condition to aneurysm at the apex of the petrous portion of the temporal bone, which had by pressure obstructed both the venous and lymphatic circulation. The carotid was ligatured, and the proptosis almost completely disappeared; he suggested that in Graves' disease, simple dilatation of the internal carotid might produce the proptosis by causing similar obstruction.

Mr. EALES related the case of a man, aged 45, in whom an acute attack of headache was followed by proptosis, most marked on the left side; the lacrimal gland was enlarged and pushed forward; the condition was alleviated by treatment, but recurred.

Mr. W. H. JESSOP, who had seen most of Mr. Morrant Baker's cases, was anxious to learn whether the second case referred to by Mr. Hutchinson improved under treatment with iodide of potassium.

Prof. BROCKMAN (of Madras) inquired as to the nationality of the first patient, whether he was a Hindoo or Eurasian. Elephantiasis was common among the Eurasians, and not unfrequently was accompanied by proptosis. In these cases, benefit resulted from the use of mercury and iodide of potassium; possibly Mr. Hutchinson's case was of this nature.

The PRESIDENT replied that the patient was of mixed Hindoo and European blood; his case had excited as much interest in India as in England, so that it was probably not of the kind referred to by Mr. Brockman. He had not seen iodide of potassium produce any result in the cases of fatty growths such as Mr. Morrant Baker had described. He did not think that the mechanical theory of the proptosis in Graves' disease advanced by Mr. Walker would bear examination. In Mr. Morrant Baker's cases there was, it was true, a tendency to nervous excitement, the patients exhibiting marked irritability of temper; but the first

patient whose case was described presented no such phenomena. Still he thought the case was very much more nearly related to Mr. Morrant Baker's cases than it was to exophthalmic goitre; there was no enlargement of the thyroid gland, no irritability of temper, nor cardiac disturbance. It might perhaps be found that, with the fatty masses, gland-enlargement in various situations occurred. The dose of iodide was at first small, about three grains three times a day, and never exceeded fifteen grains three times a day. He was inclined to attribute the greater part of the relief at the first to the sedulous use of ice, for it was very marked within forty-eight hours. He was still in some doubt as to how much of the recovery could be attributed to the iodide of potassium.

The Society then adjourned.

Friday, July 4th, 1884.

Jonathan Hutchinson, Esq., F.R.S., President, in the Chair.

Sympathetic Neuro-retinitis.

Dr. W. A. Brailey showed a patient who stated that, on March 6th, her left eye was cut by a broken jug. Before this there had been no symptoms of disease, either local or general. The wound passed in the antero-posterior direction through the ciliary region. Two weeks later, she had pain in the right eye, and the sight began to fail. She first applied at Guy's Hospital three weeks after the accident. Vision was then very imperfect ($\frac{6}{60}$); the optic disc was a little swollen; the margins blurred; the vessels pale, rather contracted, and in some cases edged with faint white streaks for a short distance into the retina. The vessels near the yellow spot were rather larger and more numerous than usual, and also somewhat tortuous. Vision had gradually improved up to $\frac{6}{24}$; but the optic disc had grown flatter and paler. The exciting eye (left) had caused no pain since the first week. He thought the case was an instance of a neuritis of the anterior part of the optic nerve, produced sympathetically.

The President observed that the case was probably the first well authenticated instance of optic neuritis as a sympathetic affection.

Mr. Adams Frost referred to a case of neuritis occurring in the course of a sympathetic ophthalmia, where the inflammation of the media was very trifling.

Miners' Nystagmus.

Mr. Simeon Snell read a paper on the cause of Miners' Nystagmus, and stated that he had long held the opinion, as the result of clinical experience, that the cause of the disease was to be found in the peculiar manner in which the miner performed his work, whatever secondary influences other surrounding circumstances might exert. He had seen no evidence to support the theory of central disease, and believed the poor illumination of the "safety lamp," and other causes mentioned by writers, were insufficient to account for the affection. He described the various classes of men engaged in a coal pit, and the kind of work performed by them. The disease appeared to be confined to the "coal getters." He had previously stated that, in his experience, men suffering from this affection had been engaged in work which necessitated their lying on their sides. Some of the "coal getters" were employed in this manner, in what was termed "holing," the process of "driving a cutting under the seam of coal," and the hole made might reach a yard or more underneath the coal. This was done to facilitate bringing down the coal by wedges. The hole made might be only 18 inches to 2 feet high, and a man working in this would be cramped up and lying on his side. Further experience had corroborated the opinion expressed nine years ago, and though cases were constantly under observation, he believed they had all been engaged in the manner mentioned. He stated also that he had descended into a pit, and as anticipated found the men occupied in "holing," and working on their sides affected (four out of six examined), whilst other coal getters and other workers in the pit appeared to be free from it. Other evidence in support of this view was educed from the cases mentioned in Mr. Oglesby's paper (*Ophth. Soc. Trans.*, vol. ii.), and also the opinion of Dransart (*Annales d'Oculistique*, 1877), that all the sufferers had worked in shallow inclined bearings. Mr. C. S. Kilham had also, at Mr. Snell's request, examined in Durham over 500 colliers, and found not a single instance of nystagmus; in none of these pits were the men occupied in work compelling their lying on their sides. Dransart had held the disease to be due to fatigue induced in the elevators, by the frequent upward gaze of the miners at work. Mr. Snell explained that working in the manner mentioned, it followed that the eyes were frequently thrown into an oblique position upward to the left or right—a position much more fatiguing than simply looking upwards. The muscles affected would thus be the superior rectus, the inferior oblique, left internal rectus, and right external rectus —if looking to the right or substituting the right internal rectus and left external rectus if looking to the left. He considered the nystagmus arose under conditions recognised as "chronic fatigue" in other regions, and analogous to writers' cramp, &c. Recovery took place if the patients ceased their work in the pit, in a variable time; it was quite possible that changing the manner of work would be quite sufficient. Strychnia and other remedies appeared to be useful as adjuvants.

The President said that Mr. Oglesby's paper had conveyed to him the impression that the constrained attitude was an important factor in the production of the nystagmus, but that the long hours of work and the bad light added to the influence of the muscular fatigue: clearly writers' cramp was the malady most analogous to the nystagmus; but it was easy to imagine, in both cases, that there was a lowering of central activity, so that the disease was not purely local.

Mr. Priestley Smith said that nystagmus must be regarded as an evidence of disturbed function in the centres governing the combined movements of the eyes, as the movements, though not necessarily equal, were always bilateral and synchronous. Retinal impressions supplied a stimulus to these co-ordinating centres, which was essential to their functional activity, as was seen from the fact that children born with diseased optic nerves or with cataract became nystagmic, a condition remediable provided that the defective sight was cured at a sufficiently early age. The difficulty of steady fixation in the dark was one he had personally experienced, and the miner worked in a bad light and surrounded by black walls, conditions producing a feeble stimulus to fixation. In reply to an observation of Mr. Nettleship's, he suggested that the bilateral movements of the eyes were governed by two centres connected by commissural fibres, and ordinarily incapable of separate action. Cases of unilateral nystagmus were however exceedingly rare.

Dr. Brailey thought that muscular fatigue best accounted for the nystagmus, and that it must in great measure be attributed to the position assumed by the miner. He pointed out that fixation was a great stimulus to the muscles as well as to the nerve centres.

Dr. Angel Money alluded to a case of voluntary horizontal nystagmus that he had lately seen in a young girl.

Mr. Eales favoured the central theory. He pointed out that some of the patients were in a condition approaching night blindness. He had observed the case of a man who for twenty years had worked by naked lights without any nystagmus, but in whom the condition was produced soon after the introduction of the safety lamp.

Mr. Nettleship thought it would be difficult to account for a case of unilateral nystagmus on the theory of lesion of the nerve-centres.

Dr. Stephen Mackenzie believed that writers' cramp

and other fatigue paralyses were due to central disturbance. Any cause that tended to exhaust the nerve centres tended to produce tremor and other muscular disturbances. He regarded Mr. Priestley Smith's arguments as to the central origin of this form of nystagmus as conclusive, and he pointed out that in insular sclerosis and other nerve diseases nystagmus was clearly dependent upon disease of the central nervous system.

Mr. Adams Frost had formerly lived for about two years in the colliery district of North Staffordshire, where miners' nystagmus was common. The Davy lamp was in use there, and "holing" practised. The photographs which had been handed round, depicted the miner's position in this operation very accurately. He thought it extremely probable that in the mines in which the Davy lamps were not used, "holing" was not common; in the operation of holing it was not necessary to fix very accurately, and, indeed, as the hole was often a yard deep, it was not possible.

Dr. Beevor observed that muscular fatigue alone did not seem capable of producing tremor, for instance, the fatigue of muscles by the Faradic current did not produce it.

Mr. M. McHardy suggested that in the analogous malady, writers' cramp, there was some interference with nervous conductivity.

Mr. Snell, in reply, said that the condition was not symmetrical. If the imperfect light and black walls were the efficient causes, why was not the disease more widely diffused? The light by which the holers worked was not materially worse than that used by other workers in the coal-pits, yet nystagmus was entirely confined to the holers.

Model Apparatus for demonstrating Operations on the Eye.

Mr. J. Streatfeild, after commenting on the difficulty of demonstrating ophthalmic operations to a large class owing to small dimensions of the organ, and the impossibility of all the members of a class of students catching even a glimpse of the manipulations, explained the construction and uses of a large model made for him by Hawksley, of Oxford Street. The model was made on a scale exactly ten times that of the actual eye, and the models of the eye-instruments were on the same scale, excepting the handles of the instruments had been altered and shortened. The apparatus, which consisted of the front of an eye, permitted of rotation in every direction, and the eye could be fixed in any desired position. The sclerotic and the eyelids were constructed of white felt. The cornea was made of stout glass of the right curvature. The iris was imitated in thin sheet india-rubber, with a round hole for the pupil. The cataractous lens was made of xylonite. The internal and external rectus muscles of the eye were represented by pieces of linen bandage. With this apparatus could be represented the *modus operandi* of peripheral section of the cornea, of iridectomy, of extraction of cataract, and of squint operations. The anterior chamber could only be entered for iridectomy, cataract extraction, &c., in the usual place, at the sclerotico-corneal junction. Here at any part of the upper half-circumference, the knife, forceps, pricker or curette, could be entered between the felt sclerotic and the glass cornea, which gave way for their admission, and resumed its natural position when the instrument was withdrawn. The sheet india-rubber of which this imitation iris was made, could be seized with the (model) iris forceps at any part, drawn out of the eye, more or less, and so much cut off as might be desired in the demonstration. With this large apparatus, other matters besides the operations only could be demonstrated. Mr. Streatfeild illustrated his remarks by performing a cataract extraction on the model.

Cases of Congenital Defects.

Mr. Simeon Snell related the following cases of imperfect development: (1) Congenital cysts in the lower eyelids with (apparent) anophthalmos. The patient was an infant of a few weeks. In the left lower eyelid, a large cyst, with bluish tint, was situated; it extended deeply into the orbit. On being tapped, the fluid escaping was straw-coloured, and corresponded, on analysis, to that examined from similar cases recorded as "congenital cysts with anophthalmos." Subsequently, the cyst-wall was partially excised, and it was thought that a rudimentary globe was detected at the back of the orbit. In the right lower eyelid, at first, there seemed to be a very small cyst; it was not tapped, and a year later it was hardly apparent. Here also a resistance, particularly at the later period, was detected in the orbit, and was thought to indicate the presence of a rudimentary globe. Both orbits were normally developed, and completely lined with conjunctiva. (2) Congenital cyst in lower eyelid with micro-ophthalmos; the infant was under the care of Mr. W. M. Jones, of Wath. The cyst filled the orbit. After dissecting it out, a micro-ophthalmic eye came into view. The cornea was well formed, there was a coloboma at the lower part of the iris, and the eye was possessed apparently of some vision. An ophthalmoscopic examination was made, and, as far as could be made out, the child was almost moribund with tubercular peritonitis. The coloboma extended into the choroid, but did not reach to the optic disc. The cyst in the eyelid presented a bluish tint; the fluid was straw-coloured. Mr. Snell quoted the recorded cases, and remarked on the various causes assigned for the origin of these cysts by Talko, Mauz, Van Duyse, and others. The theory advocated by Van Duyse, that they arose from the encysting of a staphylomatous coloboma, was held to correspond with their association with micro-ophthalmic or rudimentary globes. (3) A case of absence of eyeball on one side. (4) Micro-ophthalmos of the left eye, with coloboma of the optic nerve-sheath, and coloboma of the choroid in the right eye. The fundus in the left eye displayed the rare condition described as coloboma of the optic nerve-sheath; the coloboma was six or eight times the size of the optic nerve, perhaps being the largest recorded. On the left side, V = fingers, possibly more; on the right, V = $\frac{10}{50}$. Between the optic disc and the periphery below, a pearly white patch was situated; the edges were well marked, and pigmented; otherwise, the fundus was normal. This was considered to be congenital, and to be due to arrest of development (coloboma of the choroid). In neither eye was there a cleft of the iris, nor any deformity beyond those named. Nystagmus, affecting both eyes, was present. (5) Remains of hyaloid artery. The attachment to a vessel in the centre of the optic disc was clearly made out; at this point it was a little more funnel-shaped. Anteriorly, it was attached to the posterior lens-capsule, where it occasioned a striated opacity. V = fingers at one foot. The eyes were myopic. (6) Coloboma of upper eyelid, situated at the junction of the inner with the middle third. There was also a lipoma of the conjunctiva.

On a preliminary Precaution to be taken in cases of Cataract Extraction when there is, or has been, any Lacrimal Obstruction or Catarrh.

Mr. J. F. Streatfeild read a paper dealing with a class of cases of cataract requiring extraction, in which an unsuccessful result meant absolute failure and total loss of the eye—those cases, namely, which were complicated by lacrimal obstruction, or catarrh; the operation, in such cases, involved an almost certain failure of the worst kind; and, as the cause of failure in these cases had been overlooked or misunderstood, this catastrophe seemed to have been almost as inevitable as it was complete. When suppuration followed purulent infiltration of the corneal wound, when it occurred as the direct and immediate consequence of the extraction operation, it was the common, almost invariable, beginning of the suppuration of the whole eye. These cases were of course not common, because the absolute loss of an eye after cataract extraction operation, from any cause, was a rare event; but absolute loss of vision was, as a rule, the result of suppuration. Of the last six absolute losses after extraction at Moorfields, three were the result of suppuration. He had had two such cases within the past year—one in private practice, and the other at Moorfields. The cause of this suppuration, after cataract extraction, he was inclined to think was generally some lacrimal obstruction, and secretion of purulent matter from the outlets of the tears, in connection with the eye operated on. No surgeon would think of operating for extraction when there was any lacrimal catarrh, or at least when there was any purulent regurgitation from the lacrimal sac, or indeed any pus of any kind, or from any part of the mucous sur-

faces within the palpebral aperture ; but the state of the lacrimal mucous membrane was difficult to investigate, and it was liable to be considered to be in a healthy state when it was not so. A purulent discharge from either mucous tract, but especially from the lacrimal mucous membrane, was likely to recur at any time, especially if an operation on the eye had been done. An inconspicuous quantity of pus would be sufficient to infect the corneal section. In the case of J. L., a thin and healthy countryman, aged 68, admitted into the Moorfields Hospital on July 4th, 1883, with mature cataracts, both the lower lacrimal puncta were somewhat everted, and, consequently, there was an overflow of the tears in either eye. The lower canaliculi were slit. Pus was found in the lacrimal sac on either side. After this, the nasal ducts were probed every day, or nearly every day, for ten days, and the cure seemed to be complete. On July 16th, the left cataract was extracted. On the day after the extraction, a purulent infiltration of the wound at the upper part of the cornea had begun, and spread rapidly from thence ; the eye was very soon lost for all practical purposes, and, on July 23rd, it was excised. The patient left the hospital on August 2nd. On November 24th, he was re-admitted ; there was some lacrimation of the right eye, but no evidence of any pus in the discharge from the sac at this time. The lower canaliculus, which had been slit, was patent. The eye was in all respects healthy, with the exception of the opaque lens. Now, this was a very unsatisfactory state ; there was no difficulty in passing the large probes, and there was no pus to be seen in the discharge, but recovery was not complete. Mr. Streatfeild resuscitated the old operation for the total obliteration of the lacrimal sac, the canaliculi, and all the lacrimal mucous surface, which used occasionally to be performed twenty years ago for chronic obstinate discharge from, and distension of, the lacrimal sac, from obstruction of the nasal duct. On December 10th, the upper canaliculus of the right eye was slit, from the puncture to the lacrimal sac ; when the bleeding had stopped, the eyelids were held widely apart, the eye itself being covered and protected, and the pointed end of Paquelin's thermo-cautery was passed rapidly in the direction of first one and then the other canaliculus, along them, and quite into the sac. He then made a skin-incision over the lacrimal sac, rather longer than the whole of its extent, downwards and a little outwards, between the root of the nose and the lower eyelid ; this was then continued into the mucous cavity itself ; and, when the bleeding was arrested, the two edges of the deep incision were held widely apart, and the broader end of the cautery was very freely and repeatedly applied to all parts of the exposed mucous surface, from the top to the bottom of the sac. The cavity was stuffed with carbolic oiled lint. On January 1st the wound had healed, and the sac and the canaliculi were apparently obliterated. There was slight lacrimation, but there was no pus, or any muco-purulent matter in the eye. On April 23rd he was again admitted. There was then a depressed scar in the place of the lacrimal sac, and a small hole leading down in that direction ; there was also an indication of a part of the lower canaliculus. The following day, the cautery was again applied to the fistulous orifice and to the remains of the lower canaliculus, and on May 8th for a third time. On May 20th there seemed to be no trace of the canaliculi remaining, and no indication left of a lacrimal sac. There was now no discharge upon the conjunctival surface at any time ; the flow of tears was not much, and it was no longer troublesome. On June 2nd the cataract of the right eye was extracted. The eyelids were washed with a (1 in 40) solution of carbolic acid before the operation, and boracic acid ointment (ten grains to one ounce of vaseline) was smeared on the dressing. A weak solution of boracic acid was used subsequently every day to bathe the eye, and the same ointment was re-applied with the after dressings. Slight ciliary congestion with photophobia occurred about a fortnight after the operation, but he made a good recovery. The objections to the obliteration of the lacrimal sac were not practically very strong ; and, in the cases in which he advocated a revival of this obsolete practice, it seemed to be absolutely necessary in order to succeed in operating for cataract subsequently.

Owing to the lateness of the hour, the following papers were taken as read :—

Mr. Nettleship : Examination of a glaucomatous eye, in which retinal hæmorrhages were present, and were distributed in a manner suggestive of obstruction to the descending branches of the cerebral vessels.

Dr. Edmunds and Mr. Lawford : Optic neuritis in relation to cerebral tumour.

Mr. Cant : Cystic tumour of iris.

Living and Card Specimens.

Mr. Simeon Snell showed a section under the microscope of a specimen of bony tumour of the conjunction. It was removed from the right eye of a girl, aged 13, and had probably existed since birth, but had caused no inconvenience until shortly before she came under observation.

Dr. Walter Edmunds showed an ophthalmoscopic drawing from a case of cerebral tumour, presenting appearances like those of albuminuric retinitis. There was well marked double optic neuritis with hæmorrhages round the disc, there were also bright radiating lines at the yellow spot. The retinal veins were not tortuous.

Mr. Lang showed a little child with a growth on the iris of a possibly tubercular nature. The eye had been noticed to be a little blood-shot about the middle of May. When first seen a month ago there were several growths on the lower part of the iris, and the cornea was hazy ; the growths had since been steadily increasing in size, and there was pus in the anterior chamber.

Mr. A. Critchett exhibited a patient with conical cornea, on whom he had operated.

Also with Mr. Juler he showed a case of squint cured by operation, and a leucoma of cornea, treated by tattooing, and the formation of an artificial pupil.

Mr. W. Adams Frost showed two cases of double optic neuritis in children. In the one case, which was a girl, aged 10, the failure of vision had been preceded for several months by very severe headaches, accompanied by vomiting, and these still persisted. There was slight parcsis of the left external rectus, but no other paralytic affection, Knee-reflex normal. The patient was a very healthy-looking and intelligent child. There was no history of any personal illness or family tendency. The other case was a girl aged 7. When first seen on May 1st vision was said to have been failing a week. There was well marked papillitis in both eyes. No history of headache or any illness could be obtained at the time. A few weeks later the child was attacked with severe occipital pain, and vomiting, and the headaches without vomiting have recurred frequently since. No paralysis of any ocular muscles. Left eye has improved slightly under small doses of mercury.

Annual General Meeting.

The Reports of the Treasurer and Council were received and adopted. The following officers were elected for 1884-5 —President—Jonathan Hutchinson, F.R.S. Vice-Presidents —Sir William Bowman, Bart., F.R.S. ; C. E. Fitzgerald, M.D. (Dublin) ; Henry Power ; *Thomas Reid, M.D. (Glasgow) ; *T. Shadford Walker (Liverpool) ; J. C. Wordsworth. Treasurer—J. F. Streatfeild. Secretaries—John Abercrombie, M.D. ; W. A. Brailey, M.D. Council —George Cowell ; G. A. Critchett ; R. Marcus Gunn ; George Johnson, M.D., F.R.S. ; Stephen Mackenzie, M.D. ; Charles Macnamara ; E. Nettleship ; Priestley Smith (Birmingham) ; *Simeon Snell (Sheffield) ; *T. Sympson (Lincoln) ; *John Tweedy ; W. Spencer Watson. The gentlemen whose names are marked with an asterisk (*) were not in the Council, or did not hold the same office, during the preceding year.

Some alterations in the rules, and regulations for the library were then agreed to.

The Army Medical Department. — One of the important results, says the *Standard*, of the recent Report of Lord Morley's Committee on the Army Medical Service will be a careful revision of surgical and medical equipment for hospital and field use, with the adoption of the latest improved appliances. Various changes are under consideration in the Army Hospital Corps, with a view to a fuller recognition and development of this valuable force.

THE WEST LONDON MEDICO CHIRURGICAL SOCIETY.

FRIDAY, MAY 2, 1884.

DR. THUDICHUM, President, M.D., F.R.C.P., in the Chair.

Radical Cure of Hernia.

MR. SWINFORD EDWARDS showed three cases in which he had performed the radical cure for hernia. The first case was that of a man, aged 40, who was admitted into the West London Hospital with a strangulated inguinal hernia. Taxis under ether failed. The sac was opened and the constriction, which was situated at the neck of the sac, was divided in the usual way, and the bowel returned into the abdomen. Some prolapsed omentum was ligatured and removed, after dividing some adhesions between it and the sac. The sac was now freed from the scrotum, care being taken to avoid any injury to the cord in so doing. The sac having been pulled down as far as possible, a cat-gut ligature was tied round the neck and the sac removed. Having well defined the external abdominal ring, the pillars were brought together with three silver wire sutures. The operation was completed by bringing the soft parts together, after the insertion of a drainage tube by means of silver wire. The wound healed by first intention, excepting at three points situated over the deep silver sutures. These were removed at the end of three weeks, the patient being discharged three weeks afterwards, wearing no kind of truss, there being no impulse on coughing. The temperature never exceeded 100°. The patient is now, a year afterwards, following his usual occupation, wears no truss, and has no return of the rupture.

The second case was that of a lad, aged 19, who was operated upon six months ago for reducible inguinal hernia. The operation was undertaken at the patient's own desire, as he wished to be freed from the inconvenience of wearing a truss. The steps of the operation were as in the previous case, excepting that cat-gut was used to bring the pillars of the external abdominal ring together instead of wire. The wound in this case (as, indeed, in all Mr. Edwards' cases, with the slight exception of the previous case, where complete union by first intention was prevented by the irritation caused by the use of silver wire for the abdominal ring) healed by first intention. The temperature never rose above 100°. The patient was discharged, wearing no truss, one month after the operation. This patient was examined by various Members of the Society, and pronounced cured. There was found to be some impulse on coughing, due to a slight varicocele, which had been noticed at the time of the operation.

A little girl, aged 12, was the third case shown. She was admitted into the hospital with a reducible inguinal hernia of the right side, of two years' duration. The same operation was performed in this case. The temperature never rose above 99°, and the wound healed by first intention. She was in hospital altogether about a month. Several members examined this case and found no increased impulse on coughing. The little patient has not worn a truss since the operation, now ten weeks ago. In these cases strict attention was paid to antiseptics, both at the time of the operation and in the subsequent dressings. The spray, however, was not used. Mr. Edwards laid great stress upon employing thorough drainage, iodoform next the wound, plenty of gauze packing, and over all equable elastic pressure, by means of an Esmarch's bandage. With regard to the femoral variety of hernia, Mr. Edwards said that he contented himself with ligature of and cutting off the sac, not caring to meddle with either the femoral ring or the saphenous opening, on account of the close proximity of the femoral vein. He recommended this operation, as brought forward by Mitchell Banks, in all cases of strangulated hernia, where the state of the intestine admitted of its being returned, and in cases of reducible hernia, where the wearing of a truss was insufficient or irksome.

Mr. EDWARDS, in reply to Mr. Lunn, said he would have the operation performed on himself if he had a hernia.

Dr. THUDICHUM said the operation did not vary from Wood's, except in cutting off the sac.

Mr. BRUCE CLARKE said Wood did not insist on suturing the pillars of the ring, and also invaginated the scrotum.

Mr. KEETLEY stated that the injection of fluids into the canal had been practised in America and Germany with success. He considered Wood's and Wutzer's operations were practically abandoned.

Littré's Hernia.

Mr. KEETLEY read some remarks on a case of Littré's Hernia. The patient was a woman, aged 40, with a right femoral hernia. Obstruction was only partial, and symptoms had existed for five days before admission into hospital. There was vomiting, but the bowels moved occasionally, and there was in addition local pain and tenderness. The sac was opened and reduction was easy. A portion of the intestinal wall, about the size of half-a-crown, was strangulated and of a very dark colour. The sac was excised and its neck tied, antiseptic precautions being used throughout. The patient did well for 24 hours, the local symptoms having been quite relieved. Delirium afterwards came on, and death ensued in 30 hours. At the *post-mortem* examination the strangulated portion was found quite black, and the blackness had also spread for an inch or two upwards and downwards. The affected region of the intestine, for the distance of about a foot, was narrowed in calibre, the greatest narrowness being at the point of strangulation. Intestines empty and pale, and no peritonitis.

Mr. BRUCE CLARKE said it was important to decide what should be done with the gut in the case of a small portion being gangrenous; he considered that excising the gangrenous portion and reuniting the bowel by sutures, was a treatment well worth trying.

Dr. THUDICHUM said the influence of position in reducing hernia was very great; for instance, putting the patient on his knees and elbows, or even inverting him.

Mr. BECKINGSALE asked if taxis had been employed before the operation.

Drs. OWLES and CULVER JAMES, Messrs. EDWARDS and LAWRENCE, also took part in the discussion; and, in reply, Mr. KEETLEY said the affected portion of gut was ileum,—that taxis had been employed, and that where he felt convinced the gut could not recover, he would excise, as suggested by Mr. Bruce Clark.

Extra-Uterine Pregnancy.

Dr. ALDERSON read a paper on a case of Extra-Uterine Pregnancy. The patient was a healthy married woman, aged 30; she had one daughter then twelve years old. She had been ill with congestion of the womb before marriage, and had a severe attack of menorrhagia, lasting five weeks, shortly before her second marriage in 1879. Dr. Alderson attended Mrs. H. for the first time, 4th August, 1880; she had been under medical treatment from the previous May, for a slight brown vaginal discharge. A sound had been passed, and occasioned much pain, both at the time and afterwards. On Dr. Alderson's visit, Mrs. H. was in bed, and was evidently suffering from severe uterine congestion, and other symptoms, due apparently to a retroflexed uterus. For the next three or four weeks the patient suffered severely from sharp attacks of acute peritonitis, and symptoms that were attributed to pelvic cellulitis and membranous dysmenorrhœa, for on the 22nd August she passed per vaginam a large tough membrane, the exact cast of the uterus and Fallopian tubes. After this there was a brief interval of comparative ease. The improvement not continuing, Dr. Wiltshire was called in consultation, September 2nd, and after careful examination diagnosed the case "as a cataclysmic hæmatocele into the peritonæal cavity, probably due to the rupture of an extra-uterine fœtation, most likely of the tubal variety, the Fallopian tube having burst." On September 8th, Mrs. H. had a dangerous attack of acute peritonitis. Opiates by the mouth, rectum and vagina, and in fomentations, gave great relief, and some sleep resulted; in the morning her temperature was reduced 2°, and her pulse from 130 to 120. The patient continued to make good progress, and on September 13th, the temperature was normal, and the pulse 100. The external swelling was much less and showed comparatively little tenderness. The tumour could not be felt in the vagina, but per rectum

there was a prominent firm obstruction, about two inches up, completely plugging the passage. The bowels had not acted for three days, and so great was the obstruction that neither the finger, nor the tube of a Higginson's syringe would pass beyond it. On September 20th, this obstruction to the bowels still continuing, she consented to removal to the West London Hospital, where she was admitted the same day, under Dr. Wiltshire's care, and remained in the hospital for twelve weeks. The journey thither apparently caused the bursting of the fœtal abscess, as a copious mattery discharge from the rectum commenced the same afternoon. This discharge continued, more or less night and day, for three weeks. The patient never suffered any acute pain afterwards, and dates the commencement of her convalescence from this attack of suppurative diarrhœa. Her bowels were never confined after her admission into hospital. All her stools were carefully examined, and on October 12th she passed per rectum portions of fœtal bones, and the last piece of bone on May 24th, 1882. The interest of the case is perhaps the apparently entire recovery of the patient, and that the fœtal head can be felt as a hard globular swelling per rectum. Dr. Alderson called attention to the earlier symptoms by which extra-uterine fœtation might be known or at least suspected. He thought the clotted chocolate discharge, this patient's first symptom, was most probably the escape of the amniotic fluid. Dr. Aldersou asked the opinion of the Society as to the most appropriate treatment after the early diagnosis of extra-uterine pregnancy. Should the aim be to destroy the life of the fœtus by galvanism or injection, and thus arrest its growth and avert hæmorrhage? Might the bones of the fœtal head (which are said never to suppurate), and the other remains of the fœtus become a lithopædion and harmless? Would the patient have suffered less, have had a better chance of longer life, and of life under more favourable circumstances, had any operative measures been resorted to during any period of Dr. Alderson's attendance? He concluded his paper by remarking that Mrs. H. had escaped death from acute peritonitis, from collapse, hæmorrhage, acute suppuration, and other dangers of extra-uterine fœtation. Was meningitis, apoplexy or sudden death still a possible termination that might be expected?

Mr. Gunton Alderton had seen three cases of extra-uterine fœtation, in two of which the bones were discharged per rectum, but in the third case he did not know the final result. He thought the prospect of leaving these cases to nature not so very gloomy.

Dr. Venn said that where retroflexion was present, vomiting was a rarity. In Fallopian cases the cyst usually burst about the third month. As regards diagnosis it was arrived at by a process of elimination. He recommended abdominal section in cases where the cyst was discovered before rupture. When discharge of bones occurred through the rectum it should be encouraged to continue, but he advised no interference when they were encysted. The galvanic current appeared to be the best means of destroying the fœtus.

Mr. S. Edwards asked if there were any statistics in these cases comparing those operated on with those where the bones passed per rectum.

Dr. Owles did not think it advisable to use the uterine sound where pregnancy might exist.

Dr. Alderson, in replying, thought Dr. Alderton fortunate in having seen three cases of extra-uterine fœtation with two recoveries, and added that in his patient the uterus was still more tender than normal, and the patient had much pain if the monthly period was delayed, and suffered then from severe headache. The use of the sound had certainly caused the patient a great deal of pain; until the sound was passed she was able to walk about and continue her household duties as usual. It caused some inflammation, although it could have hardly caused the fœtal death, as pulsation in the cyst was detected some time afterwards. With regard to fatality after operation, he had seen it recorded as high as 67 per cent. In 24 cases of primary operation by Parry, only one survived.

At the conclusion of the meeting, Dr. Thudichum announced that an annual lecture would be given under the auspices of the Society, to be called "The Cavendish Lecture," in honour of the distinguished chemist who resided in the West of London, and who was an ancestor of the Duke of Devonshire, the President of the West London Hospital. He had much pleasure in announcing that Mr. Timothy Holmes would deliver the first lecture early in July.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE IX.

Food.

Aërated Waters.

The manufacture of aërated waters is an industry attaining gigantic proportions. The old clumsy methods of developing carbonic acid gas, of charging and corking the bottles have given way to machinery and plant of a very complicated and expensive character, enabling the maker to turn out daily, at a cheap rate, quantities of aërated fluids, which under the earlier system would have been impossible.

It is obvious that the industry is one that may from time to time be a most valuable assistance in preventive medicine. When fever taints the well, or malaria lurks in the stream, distilled water, the mawkishness of which has been neutralised by gas, affords safety.

There are at least seven exhibits of mineral waters at the "Healtheries"; three of these we have carefully examined and trust that the others which have not passed through our hands are equally free from metallic and organic impurity.

Mr. H. D. Rawlings, of Nassau Street, Berners Street, W., displays every kind of aërated and medicinal water. His soda water we find to have an alkalinity equal to nearly 4 grains of carbonate of soda in the pint, the total solid residue per pint being 8·2 grains; the water is free from any metallic or other contamination.

The potash water is more than double the strength of the soda water, having an alkalinity equal to 11·2 grains per pint, and on evaporation a pint leaves a solid residue equal to 14 grains. The same remarks as to purity and freedom from lead or copper apply here also.

Rawlings' lithia water leaves a residue of 8·3 grains to the pint, and is what it is represented to be.

Rawlings' lemonade has an acidity equal to 3½ grains of citric acid per pint; the taste is pleasant, it is free from lead or copper, and well charged with gas.

The British and Foreign Mineral Water Company have also a very complete exhibit, including, besides the usual assortment of effervescent drinks, a model of the admirable machinery used. The processes they employ ought to render contamination by lead or copper an impossibility, nevertheless, we decline to take anything for granted, and have therefore also submitted various samples to analytical examination.

The potash water is in strength equal to 4½ grains of potassic carbonate per pint; it is free from metallic contamination.

The lemonade is practically the same in strength as Rawlings' lemonade, it is likewise pure and free from lead.

The third exhibit which has been specially examined is that of Messrs. Pitt, City Road. Their products are good and pure; the soda water in alkalinity is equal to 2 grains of sodic carbonate per pint.

These determinations of alkalinity and general strength are sufficient to show that no common standard is adopted by different makers. If at the bar of a public-house a bottle of potash water is demanded, the customer may be supplied with a bottle containing four, forty, or any intermediate number of grains of potassic carbonate, and the same remark applies to all the artificial medicated waters. Since lithia and potash waters are not infrequently prescribed, it really would be of some convenience, both to medical men and the public, if a common standard of strength was adopted, and the strength stated on the label.

We notice that nearly all the aërated water manufacturers have introduced what they call "*tonic* water." These

tonic waters are feebly acidulated waters, saturated with carbonic acid gas, and made bitter by various bitters, such as nux vomica, hop, chirretta, quassia, &c. The chief customers for the "tonic waters" are gentlemen with white tremulous tongues, who have no appetite for breakfast, but manage to excite some feeble craving for food about 11 or 12 in the day; in short, they are drawn from the ranks of dissipated people. The "pulling together" by the daily use of bitters is wrong; it is analogous to the practice of the malingerer, who applies the salve to his ulcer in the day, but tickles it up with a bristle at night. There are many organs and functions which may be stimulated, but reaction is inevitable; the stomach that has to be goaded at 11 a.m. by tonic waters or gin and bitters, requires to have the cause of its torpor removed, and not excited to a temporary activity which, from its artificial nature, cannot be maintained.

Biscuits and Flour.

The old established biscuit firms are well represented at the Exhibition; for instance, Messrs. Peek, Frean and Co. show the "Oswego," "Health," "Charm," "Wreath," "Milk," "Café," "Abernethy," and many other kinds. They have been specially successful in their "Cocoa-Nut Biscuits;" the delicate and easily-destroyed cocoa-nut flavour is fully preserved, and the white albumen seems to be a component part of the biscuit.

While on this subject we must not omit to notice "The Tunbridge Wells Water Biscuit," the texture of which is almost that of fine lace, and though of considerable surface their average weight is no more than five grains. In striking contrast to these are "Scott's Midlothian Biscuits," made of pure oatmeal, brittle and solid; on a packet of which a man could do a day's walking, cycling or shooting.

The different exhibits of all kinds of wheat, barley, and oats, both ground and entire, to the uninitiated look very similar; and from the general excellence of the samples the juries, aided as they will be by technical knowledge and chemical experiment, may find it difficult to satisfy their own minds.

Mr. George S. Mumford shows fine samples of wheat, pea, lentil, and other flours.

Mr. R. D. Farnworth has also samples of whole meal, of oatmeal, of Hungarian flour, &c., of the highest excellence.

Besides these, Messrs. A and R. Scott, of Glasgow, Mr. Andrew Aikman, of Edinburgh, the well-known Glen Mills Company, the firms of Turner and Company, of Brown and Polson, and a few others, exhibit every kind of meal, making as a whole a very representative show of what the miller can accomplish.

The Bread Reform League Company, of which Miss Yates is the indefatigable secretary, has of course an exhibit. Bread made of whole meal is extremely nice, and may possibly, from its more complicated composition, be the proper thing to eat; but the theory of the greater nutrition of whole meal is based entirely upon its greater nitrogenous content, and it has been too rashly assumed that the greater nitrogenous content represents greater albuminoid content, which by no means follows. The food chemists of a former age burnt flour and grain up, estimated the nitrogen, multiplied it by various factors, varying from 6·47 to 6·00, and returned it as albuminoids; but the more recent food-chemists have shown that to operate in this way is wrong, and that to arrive at the true albuminoid, the nitrogen of alkaloidal and nitrated matters abounding in the outer covering of the grain must be subtracted. True it is that these matters may, for aught we know, have a high office in the economy, but this remains to be proved; the work hitherto done showing satisfactorily enough that a larger proportion of the nitrogen of whole meal floats down the entire length of the intestinal canal unabsorbed than in the case of white flour; and that if it is a question of content of true albuminoids, whole meal suffers in the comparison.

The Library of the Royal College of Surgeons will be closed on Friday the 18th inst., and Saturday the 19th inst., for the purposes of the examinations.

OBITUARY.

HENRY HURRY ILES GOODEVE, M.D., F.R.C.P., &c.

Dr. Henry Goodeve, whose death took place on the morning of June 17th, at the ripe age of 77, was in several respects a remarkable man, and had filled many responsible positions with great credit and public advantage. He was born at Portsmouth, of a Norfolk family, and on his mother's side claimed kindred with the famous Sir John Hurry, the companion of Montrose. His father was married three times, and left male issue by all these marriages. Of the first family Mr. William James Goodeve, a surgeon in Clifton, and lecturer on anatomy, was father, by Lady Frances Jemima Erskine, of the present Earl of Mar; and of the third was Dr. Edward Goodeve, long known and honoured in Calcutta, and afterwards British Commissioner at the Constantinople Cholera Conference. Henry Goodeve entered early into active life. Before he was 22, he had assisted his elder brother as lecturer on anatomy, had taken part in the conduct of the *Athenæum* with his cousin Frederick Maurice; had graduated at Edinburgh, and had married Miss Isabella Barlow, the faithful and constant helpmate of his useful life. Having obtained an appointment in the East India Company's service, he was for four years stationed at Rampoor. During this period he received, while tiger hunting in a jungle, a frightful bullet wound, which divided the facial nerve and produced permanent facial paralysis. On the first establishment of the Calcutta Medical College, he was appointed Professor of Anatomy. He subsequently devoted himself zealously to obstetrics, and for ten or eleven years had the largest practice in Bengal. He acquired and retained the friendship of several distinguished men then in India, and particularly of the late Sir Ronald Martin, and of Dr. O'Shaughnessy (now Sir William Brook), the pioneer of Indian telegraphy. He found time also, in spite of his public duties and overwhelming private practice, to initiate reforms and found charitable and medical institutions in Calcutta, which still bear testimony to his zeal, benevolence, and judgment. At length, however, these incessant labours began to tell upon him. He returned to England on leave, and after one brief visit to the scene of his toils, retired from the Company's service with the grant of a special pension for distinguished merit. This retirement he utilized for the development of a scheme he had already conceived, viz., the extension to high-caste and other Hindus of the benefits of English education. He brought with him to London four young Brahmins, placed them at University College, and superintended their career. Some of them highly distinguished themselves, notably the late Dr. Soojoocoomar Chuckerbutty.

After several years' residence in London, the Crimean war offered an opportunity to his active spirit, of which Dr. Goodeve was not slow to avail himself. He volunteered for service and was appointed Inspector of Civil Hospitals, in which capacity he acted at the Renkioi Hospital, as colleague of Sir Spencer Wells, and the late William Robertson and Holmes Coote, under the superintendence of Edmund Parkes. Returning to England at the close of the war, he designed and erected for himself a picturesque mansion, on what is probably one of the finest sites in the South of England, overlooking the gorge of the Avon, near Bristol. It is noteworthy that this was the realisation of a definite project, formed in early life, before his departure for India. The last twenty-four years of his eventful life were spent in this new home, but his leisure never degenerated into inactivity. He was a very laborious and conscientious county magistrate, a regular visitor of the county lunatic asylums, reformatories, and industrial schools, an early promoter of the volunteer movement, and for years a captain of the Bristol Rifles, and with the hope of promoting the prosperity of the city of his adoption, he became a director of the Avonmouth Docks and Port and Pier Railway. On the death of his wife, he accepted the Presidency of the Bristol Boarding-out Society, having always been a strong advocate of domestic life as opposed to the aggregation of young people. Of late years his health, but

nct his spirit, began to fail; he suffered from weakness of the heart and from plugging of the veins, and at last died, after about ten days' illness, from congestion of the lungs and kidneys.

His manly and well-proportioned figure, his open cheery countenance, to which the effects of his wound gave a singularly martial air, will long be missed in Bristol and in Gloucestershire; but not so much as his genial hearty greeting, and his warm, kind, youthful heart that "loathed the wrong, and aye upheld the right." His friends, sometimes regretted that no public mark of distinction, on the part of Government, ever rewarded his long and distinguished public services. But most of them were accomplished at a period when the achievements of the heroes of medicine were even less recognised than now. He never had leisure for much writing, but "Goodeve's Hints on the Management of Children in India" has gone through seven editions, and in its latest form continues to be the treasured counsellor of Anglo-Indian mothers in the Mofussil.

GENERAL CORRESPONDENCE.

SIR SPENCER WELLS ON EARLY AND LATE REMOVAL OF ABDOMINAL TUMOURS.

[To the Editor of the Medical Times.]

Sir,—I agree entirely with Sir Spencer Wells in his paper as published in your issue of to-day, and if all the dreadful things he relates are really occurring, something ought to be done to save our profession from ruin.

I would desire only to point out that, as it is very unlikely that Sir Spencer would have published his diatribe unless he had been in possession of trustworthy information, if he withholds that information now, he will share the guilt of those whom it implicates.

I am, &c.,
LAWSON TAIT.

Birmingham, July 5.

THE MEDICAL COLLEGE HOSPITAL OF CALCUTTA.

[To the Editor of the Medical Times.]

Sir,—I am in no way concerned to defend the construction or the management of the above hospital since it passed away from my personal direction, more than thirty years since. I likewise have no desire to revive any of the controversies connected with it—in the which by the way I have never taken part, although I believe I know more of, and had more to do with, its early history than any of those now surviving who then shared in its duties and responsibilities. If Time be the great destroyer, he is likewise the great healer, and my memories of it, when sad at all, are that so many of my valued and respected fellow-workers have since "gone on," rather than that our work contained imperfections due to, and inseparable from, the limited knowledge of hospital construction of the time, and I would fain believe to no shortcomings on our part in making the best of the means and instruments at our disposal. Many of your readers will probably have heard for the first time of the existence of such an institution from the unsparing and trenchant condemnation of Dr. Chevers, together with his sad memories of the existence of pyæmia and its allies during his incumbency, which certainly did not prevail when it was in my charge, as the statistics I then collected seemed to me to show.

My object in addressing you is simply to place before yourself and your readers, without comment or remark, another view of the question respecting the amount of responsibility for those affections, fairly due to faulty construction. It is extracted from a resolution of the Government of Bengal in "The report on the Calcutta Medical Institutions for 1878," dated July 11th, 1879, which is a strictly official document, with which I had no connection, direct or indirect, and which I leave to tell its own tale.

Para. 10. "*Medical College Hospital.*—Exclusive of 546 house-patients in the ophthalmic hospital, there were 4,602 indoor-patients treated during the year, of whom 2,541 were Christians, and 2,061 natives. The death-rate was 13·56 per cent., as compared with 10·83 in 1877, and 13·62 in 1876. Excluding moribund cases, the death-rate was 11·2 per cent. of the number treated. One hundred and eighty-four surgical operations, classified by the principal as capital operations, were performed during the year, or remained under treatment at the end of 1877, and of these only 22 died. The death-rate per cent. was 11·96, as compared with 17·03, 21·81, 22·72, 19·75, and 25.92 in the five preceding years. Adopting, however, the system of classification used by the surgeon-general in preparing his general statement of important operations performed in all the Calcutta medical institutions, it appears that the death-rates per cent. in the Medical College Hospital were 11·08 in 1876, 8·3 in 1877, and 4·7 in 1878, as compared with corresponding death-rates of 11·06, 8·4, and 7·09 in all the Calcutta hospitals in the same three years. These figures appear to the lieutenant-governor to show conclusively that the want of success in the treatment of surgical cases in former years was mainly due to causes other than the faulty construction of the building; the recent statistics, when analysed, entirely refute the conclusions that have been drawn from the returns of 1876 and previous years, and confirm the views recently adopted by Government as to the erroneous nature of the conclusions which had been drawn from the earlier surgical mortality, and as to the destructive character of the policy based upon them."

I am, &c.,
F. J. MOUAT, M.D.,
Formerly First Physician of the Medical College Hospital of Calcutta, and Secretary to the Institution.

London, July 8th, 1884.

INVENTIONS AND IMPROVEMENTS.

ANTISEPTIC CHARCOAL WAFER BISCUITS.

Under this name the same firm have introduced a very palatable form of charcoal biscuit, which professes to be made of the finest willow charcoal, and flavoured with pure ground ginger. These biscuits provide a very pleasant mode of administering vegetable charcoal.

THE IMPROVED ZOEDONE.

The Zoedone Company, 80, Coleman Street, E.C., have recently made considerable alterations in the manufacture of their staple article, and profess to have considerably improved both its quality and flavour. That their allegations in this respect are justifiable, no one who tastes the drink as now produced can deny. Zoedone as originally introduced to commerce, contained too much sugar, and had too pronounced a flavour, so that many people who welcomed it at first as an agreeable alternative to other effervescent drinks — alcoholic and non-alcoholic — found that they rapidly tired of it, and complained in some cases that it interfered with digestion. It will be found we think that Zoedone as now prepared has neither of these disadvantages. It is a refreshing and thoroughly palatable beverage, and can be safely recommended as a drink especially in cases in which iron is indicated.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the ordinary meeting of Council, held at the College on Thursday last, the first business was the election of President, when the choice fell on Mr. Cooper Forster, the Senior Vice-President; Mr. Savory and Mr. Holmes were elected Vice-Presidents. Messrs. Lawson, Durham, Hill and Allingham, the newly-elected Members of Council, took their seats for the first time. The gentle-

men, whose names have been given in a previous number, were duly elected to the various Lectureships in connection with the College and Museum. Mr. Heath's resolution was carried, *nem. con.*, in the somewhat altered form as follows:—"That at the ordinary meeting of the Council in November next, the Council do consider the mode of electing the President and any alterations suggested in the method of proceeding in the election. Sir Erasmus Wilson was put in nomination to receive the honorary gold medal of the College, the ballot to be taken at the next meeting of the Council, on Tuesday, August 5th. Mr. Charles Stewart was admitted to his office as conservator, and elected Erasmus Wilson Professor for the year. A letter from Mr. Alfred Coleman was then read, in which he resigned his office as examiner in dental surgery, on account of ill-health. The resignation was accepted with an expression of regret as to the cause. The Council, acting on legal advice, declined to comply with a request of certain dental practitioners of Nottingham that they would move the Medical Council to investigate the case of a person alleged to have infringed the Dental Act, and to have been guilty of disgraceful conduct in a professional respect. A letter from the Assistant Secretary of the Local Government Board was read: it stated that the Board were prepared to consider, when referred to, any cases of superannuation of Poor Law Medical Officers where hardships were said to have occurred, but that the Board could not consent to take the action suggested by the Council. A subscription of 25*l.* was voted towards the repairs of the church of St. Giles in the Fields. The Council then adjourned.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners, on the 4th instant, and when eligible will be admitted to the pass examinations, viz.:—

H. A. Clarke, of the Liverpool School of Medicine; E. H. Barret, of Charing Cross Hospital; R. W. Clayton, of St. Mary's Hospital; A. B. Stevens and W. S. Whitcombe, of St. Bartholomew's Hospital; and R. H. M. Roberts, of St. Thomas's Hospital.

Twelve candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, and five for six months.

The following gentlemen passed on the 7th inst., viz.:—

H. R. Williams, W. R. Garrould, and B. S. Johnson, of University College Hospital; H. T. Kelsall, C. E. Scudamore, H. E. Owen, and H. A. Debenham, of the London Hospital; J. E. Appleton, of St. Mary's Hospital C. H. West and G. A. Wybourn, of Guy's Hospital.

Twelve candidates were referred for three months, and four for six months.

The following gentlemen passed on the 8th inst., viz.:—

A. E. Gresham and H. E. Whitehead, of St. Bartholomew's Hospital; Arthur Kingsford and W. E. Carter, of University College Hospital; G. E. Haslip, Robert Hitchings, and J. F. Vincent, of the London Hospital; E. F. Gardner, C. A. Lumley, and Sidney Woodhams, of Guy's Hospital; S. G. Vinter, of St. Mary's Hospital; and G. McNair, of King's College Hospital.

Ten candidates were referred for three months, and one for six months.

The following gentlemen passed on the 9th inst., viz.:—

C. H. Ashford, Charles Lyddon, and J. E. Nihill, of St. Bartholomew's Hospital; G. T. Giddings, A. A. Kempthorne, Charles Collier, and J. T. C. Williams, of the London Hospital; E. M. Callender, of St. Mary's Hospital; T. G. Scott and F. T. Frost, of Guy's Hospital; W. J. Gilpin, F. P. Kitson, and R. B. Hughes, of University College Hospital; Ernest Dalton, of Charing Cross Hospital.

Eight candidates were referred for three months, and two for six months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 3rd, 1884:—

Mordaunt, George Dundas, 4, St. Thomas' Street, S. E.; Frederic Charles Larkin, 109, Radcliffe Street, Everton, Liverpool; William Adolphus Maggs, 16, Hanover Square, W.; Solomon Peake, Coventry; Edmund Raghib, 43, Park Road, Wandsworth; Edward Lloyd Williams, 2, James Street, Buckingham Gate, S. W.; Robert Richard Williams, Llanberis, N. Wales.

The following gentleman also on the same day passed the primary professional examination:—

George Frederick Burd, St. Bartholomew's Hospital.

Royal College of Physicians of Edinburgh.—The following have passed their examination, and been admitted Licentiates:—

Thomas Lyons, Brompton, England; Bertal Hapton Scott, Nottinghamshire; Alex. Gillespie, Canada; Frank Broadbent, Collingham, Notts; Frank Pearse, Exeter; John Traherne Williams, Tetbury, Wilts; Alfred Hanson, Cornwall; Thomas Sheedy, Liscarroll; Wm. Frederick Charles Rogers, Cornwall; James Cole Pincott, Chepstow; Wm. Hooper Pinches, London; Walter Edmund Shoreland, Bristol; George Jones Revell, Devonshire; Jas. Stuart M'Cullough, Georgetown, Ontario, Canada; John Edward Wesley Anderson, Boston, Ontario, Canada; John Standish M'Cullough, Georgetown, Ontario; Ernest Amos Hall, Hornby, Ontario; Maitland Thompson, Workington, Cumberland; George Frederick Seaman Arthy, Macclesfield; Coniston Spackman, Faringdon, Berks; William John Chambers, Ontario; Richard Johnson Martin, Little Hulton, Lancashire; Robert William Quennell, Brentwood, Essex; Edward Arthur Hardwicke, Rotherham, Yorks; Arthur H. Dixon, Trebinshun, Breeon.

The Royal University of Ireland.—A public meeting of the University was held on Saturday afternoon, the 5th instant, when the following degrees were conferred by the Right Rev. Monsignor Neville, *pro*-Vice-Chancellor:—

The Degree of Doctor of Medicine.—Henry Anderson, Robert Bell, John C. S. Burkitt, Howard Carr, Jacob Fairbrother, John S. Fogerty, John D. Kenny, Michael O'Brien, Leonard Redmond, and Robert H. Sproule.

The Degree of Bachelor of Medicine.—Patrick A. Daly.

The Degree of Master of Surgery.—Robert Bell, Joseph J. Brownlee, John C. S. Burkitt, Howard Carr, John S. Fogerty, James C. Hood, Geo. J. W. Johnston, Alexander Lindsay, Robert M'Elwaine, Archibald P. B. Moore (in absentiâ); Michael O'Brien, Richard M. Ralph, Leonard Redmond, Robert H. Sproule, James Torrens, and Samuel Wallace.

The Diploma in Obstetrics.—James C. Hood, James F. Hunter, Alexander Lindsay, Samuel Wallace, and Patrick R. White (in absentiâ).

Army Medical Department.—We learn that there will be 30 appointments offered for competition at the next examination, which takes place in August, instead of 19 as previously advertised.

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 8th instant, Sir W. N. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of 70*l.* was distributed among the several applicants.

Woolsorter's Disease.—This disease is again reported to have broken out at Bradford. Three fatal cases have already occurred, in one of which the disease was present in a peculiarly aggravated form.

St. Thomas's Hospital.—The annual prize-giving was held on July 9th, the Archbishop of Canterbury presiding, when the dean was able to read a goodly list of honours gained by St. Thomas's men elsewhere.

Hospital Fete.—On the 23rd of this month a hospital *fête* is to be held at the International Health Exhibition, under the patronage of their Royal Highnesses the Prince and Princess of Wales, when, doubtless, the attendance will be very large, and the Hospital Sunday and Hospital Saturday Funds will be materially enriched.

The Scarlet Fever Convalescent Home, Stanmore.—Miss Mary Wardell's Convalescent Home for Scarlet Fever, Brockley Hill, will be opened by Her Royal Highness the Princess of Wales on Monday, July 14th, at 4.45 p.m., and Her Royal Highness has further consented to receive purses of 5*l.* and upwards on behalf of the institution.

National Hospital for the Paralysed and Epileptic.—A meeting will be held on Monday next, when Lord Shaftesbury will preside, to make an urgent appeal for 12,500*l.*, to complete the new block in Queen Square, which is to be called the Albany Memorial Building with the special sanction of the Queen.

Lord Ashley has been appointed to and has accepted the position of President (under Royal Charter) of the Belfast Royal Hospital, Convalescent Home and Throne Children's Hospital. His lordship, who has only recently taken up his residence in Belfast, where he succeeded to the estate of the late Marquis of Donegall, is deeply interested in

hospital work, and has already shown the keenest desire to heartily throw himself into hospital management. The institution is to be congratulated upon having obtained the services of a member of a family whose name is immortally associated with nearly every good and benevolent work.

The Social Science Congress.—The following are the special questions which have been arranged for discussion in the Health Section at the next Social Science Congress, which is to be held at Birmingham on September 17–24. (1) What is the best method of dealing with (*a*) town sewage, (*b*) the products of house and street scavenging, and (*c*) the products of combustion? (2) What are the best means, legislative or other, of securing those improvements in the dwellings of the poor which are essential to the welfare of the community? (3) How far may the average death-rate of a population be considered an efficient test of its sanitary condition; and by what means can the high death-rate of children be reduced?

Death of Inspector-General Irwin.—Mr. Ahmuty Irwin, R.N., C.B., late Inspector-General of Her Majesty's Hospitals and Fleets, died last week at Southsea. He was son of the late Very Rev. Dean Irwin, Vicar-General of Ardfert, Ireland, became a licentiate of the Royal College of Surgeons (Ireland) in 1850, and Hon. M.D. of Dublin in 1881. Mr. Irwin was nominated a Companion of the Order of the Bath (Military Division) in 1874.

The Volunteer Medical Association.—At the United Service Institution on Friday (to-day), Surgeon-General Lawson will read a paper before the members of the Volunteer Medical Association on "Army Stretchers and Waggons." This association is formed on the model of the Army Hospital Corps; it is intended to be an auxiliary to that body, and is being actively supported by the medical staffs of various London hospitals. Membership is purely honorary, and thus far the entire expense has been borne by the association itself: but if it succeeds in obtaining the full authorisation from the War Office it will be entitled to a moderate capitation grant. The organisation is said to be making rapid progress, and its members regularly undergo ambulance and military drill.

Charitable Bequests.—The late Miss Ann Ball, late of Ball's Pond, has bequeathed 100*l.* each to the dispensary formerly called Aldersgate Street Dispensary; the Ball's Pond Dispensary; the Hospital for Sick Children, Great Ormond Street; the Sea-Bathing Infirmary, Margate; the Royal Bethlehem Hospital for Lunaties; St. George's Hospital; the Free Hospital, Gray's Inn Road; the Children's Hospital, Shadwell; the Crêche Hospital, Stepney Causeway; the Hospital for Children and Adults, Tottenham Green; and 200*l.* capital stock of the East Indian Peninsular Railway Company each to St. Bartholomew's Hospital; St. Thomas's Hospital; Guy's Hospital; the Metropolitan Hospital, Bishopsgate; the London Hospital, Mile End; and the German Hospital, Dalston.

Cremation in the United States.—Cremation seems to be making its way in Pennsylvania, in spite of the opposition which it has had to encounter. A Philadelphia correspondent states that a new crematory is to be built near that city, and that Dr. Joseph Leidy, who had been reported as opposed to cremation, has published a statement disclaiming that feeling, and expressing his gratification that the late Dr. Gross directed his remains to be incinerated.

Yellow Fever Inoculations.—Dr. Domingo Freire, of Rio Janeiro, the discoverer of the so-called microbe of yellow fever, writes to the *New York Evening Telegram*:—"I still continue the vaccinations, 406 having been already inoculated without the slightest disadvantage. Yellow fever is now raging at Rio. As soon as it is over I will write, giving the results respecting those vaccinated. For the present I can only say that the exemption is confirmed. In about two months I hope to be able to publish a full report of my researches in regard to yellow fever.

Death of Professor Göppert.—Professor Heinrich Robert Göppert, born in Lower Silesia in 1800, became one of the most famous of botanists and palæontologists, the long series of whose writings in the various Academical Transactions contributed in a remarkable manner to the great development which these two branches of science have undergone in the present century. Since 1827, he has taught first as Docent and then as Professor in the Breslau University. As its Director he brought the Botanic Garden into a high state of perfection; and his collection of the Fossil Flora has been, since 1874, one of the glories of the Breslau University Museum.

A Veteran Sanitarian.—Mr. George Alfred Walker, M.R.C.S., L.S.A., who by his efforts to remove burial abuses earned the sobriquet of "Graveyard Walker," died on Sunday, in his 75th year, at Barmouth, where he had lived in retirement for many years. Dr. Walker rendered signal service to his country as a sanitary reformer, more particularly in the crusade for the abolition of intramural interments. In 1840 he gave evidence for some days before a Select Committee on the health of towns in the House of Commons on the sanitary condition of London and its graveyards. He was author of "Gatherings from Graveyards," "The Graveyards of London," "Interments and Disinterments," and other works.

The Cholera Virus.—Mr. Vincent Richards, in an additional note in the *Indian Medical Gazette* for May, observes that the few further experiments which he has made seem to show that the specific poison contained in choleraic alvine evacuations is not invariably present in these; and at times, even when present, it appears to have lost much of its power—and that especially at the end of an epidemic. All these modifications will require time to investigate, owing to the only occasional opportunities of making experiments and the difficulties inherent in the subject. "If," he adds, "the cholera virus here alluded to is of the nature of a chemical compound, we can understand how, under exceptional insanitary and climatic circumstances, it might be spontaneously generated. We are all familiar with the fact that cholera generally follows in the wake of such calamities as famine and floods; and just as the innocuous saliva of the dog under the operation of some unknown chemical change may become a virulent poison, so the local conditions of filth and climate may convert a non-specific into a specific agent. No doubt all this is hypothetical, but it seems to me that it explains more satisfactorily than any other theory the apparently erratic behaviour of cholera virus."

Precautions against Cholera.—The Local Government Board have issued a circular to the various sanitary authorities in England and Wales transmitting copies of a memorandum by Dr. Buchanan, the Medical Officer of the Board, on the precautions which should be taken against cholera. The memorandum is practically the same as that issued in July, 1883, but the Board have again drawn attention to the matter, to induce the authorities to take such measures as the sanitary conditions of their districts may demand. In the opinion of Dr. Buchanan, former experience of cholera in England justifies a belief that the presence of cases of cholera at various spots in the country cannot cause much injury to the population if the places receiving the infection have had the advantage of proper sanitary administration. At the meeting of the Dublin Corporation on Monday, a letter was read from Dr. Cameron in reference to sanitary precautions, with a view to guarding against any spread of disease in the city. It also proposed that at the next meeting of the Public Health Committee, sixteen additional sanitary sub-officers should be appointed for temporary duty for the purpose of carrying out an inspection of the sanitary accommodation of the city which was deemed absolutely necessary. A telegram from Mr. Gray, M.P., urging immediate action in the subject, was read, and the matter was referred to the Public Health Committee.

Danger of False Teeth.—Cautions are constantly being given concerning false teeth, and persons will still persist in wearing them when dangerously loose. A woman stumbled in one of the streets of Pesth the other day, and when persons ran to her assistance they found her already dead. A set of false teeth had been shaken out of place by the fall and produced suffocation.

PROPOSED MONUMENT TO DR. RUSH.—Dr. Gihon, on moving a resolution at the late meeting of the American Medical Association for the appointment of a committee, to consider the propriety of erecting a statue to the memory of Benjamin Rush, observed that among all the monuments to great men for which Washington is noted, there is not one to a physician. The name of Rush is especially worthy of honour, for apart from the substantial work done by him in the development of science, he was intimately associated with the early history of his country, being a member of the Continental Congress, a signer of the Declaration of Independence, and in various ways a leader in the cause of liberty.

APPOINTMENTS.

BASS, F., L.R.C.P., M.R.C.S.—Assistant Aural Surgeon to the Newcastle-on-Tyne Dispensary, *vice* George Chalmers, M.B., C.M. Edin., resigned.

CARTER, D'ARCY, B., L.R.C.P., M.R.C.S.—Assistant Surgeon to Sir Titus Salt's Hospital, Shipley.

DREW, JOSEPH BOWERMAN, L.R.C.P. and L.R.C.S. Edin.—Medical Officer to the Workhouse, Buntingford Union, *vice* Dr. David Smith, deceased.

FREEMAN, C. D., M.R.C.S.—Assistant House Surgeon to the Royal Berkshire Hospital, Reading.

HALPIN, R. F., M.R.C.S.—House Physician to the Royal Hospital for Diseases of the Chest, City Road, *vice* Mr. Waller, whose term of office has expired.

HEATON, CHARLES WILLIAM.—Re-appointed Analyst for the Parish of St. Martin-in-the-Fields, Strand Union, for a further period of one year.

HUGHES, T.—Public Analyst for the Borough of Newport, Monmouthshire.

JONES, J. T., L.R.C.P.—House Surgeon to the Flintshire Dispensary, *vice* R. M. Witham, M.B., resigned.

KNIGHTS, JAMES WEST.—Re-appointed Analyst for the County of Huntingdon, for a period of one year. Salary, £5 5*s*. and fees.

MURPHY, JAMES, B.A., M.D., &c.—Honorary Surgeon to the Sunderland Infirmary, *vice* Dr. Ayre Smith, resigned.

PATERSON, D., M.B.—House Surgeon to the Glamorgan and Monmouthshire Infirmary and Dispensary, *vice* P. R. Griffiths, M.B., resigned.

PEDLEY, R. D., M.R.C.S., L.D.S.—Dental Surgeon to the South London Medical Aid Institute.

WHITE, W. H., M.R.C.P.—Pathologist to the Royal Hospital for Diseases of the Chest, City Road, *vice* Dr. Gabbett, resigned.

VACANCIES.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), furnished rooms, fire, light and attendance. Candidates must be registered and possess both a medical and surgical qualification. Applications, together with original testimouials and certificates of registration, to be forwarded to the Secretary, on or before July 22.

BRISTOL DISPENSARY.—Surgeon. Candidates must possess a diploma in surgery from the Royal College of Surgeons of England, Scotland or Ireland, or from the Faculty of Physicians and Surgeons of Glasgow, and in addition to such diplomas in surgery, must possess a legal qualification to practise Medicine in Great Britain and Ireland, and be duly registered according to the regulations of the Medical Act. For salary and other particulars, apply to Mr. E. Stock, 57, Queen-Square, Bristol, to whom testimonials must be sent on or before July 31st.

CHESHIRE COUNTY ASYLUM, PARKSIDE, MACCLESFIELD.—Assistant Medical Officer. Salary to commence at £120 per annum, with furnished apartments, board, attendance and washing. Candidates must be registered and doubly qualified, unmarried, and not over 30 years of age. Applications, with testimonials to be sent to Dr. Sheldon, Medical Superintendent, on or before July 19th.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY.—House Surgeon. Salary £100 per annum, with board, lodging, fire and light. Candidates must be registered to practice both in medicine and surgery, unmarried, and free from the care of a family. They must have a knowledge of the Welsh language, and will be required to enter into an agreement not to practice in the County of the Borough of Carmarthen for a period of five years. Applications, with testimonials, as to ability and character, to be sent to Mr. H. Howells, 11, Morley Street, Carmarthen, on or before July 12th.

GUILDFORD UNION.—Medical Officer to the Farncombe District, in succession to Dr. G. F. H. La Fargue, deceased. Salary, £60 per annum.

LUTON UNION.—Medical Officer to the Workhouse, in succession to to Mr. R. O. Arnold, resigned. Salary, £75 per annum.

MERIDEN UNION.—Medical Officer to the Meriden District and the Workhouse, in succession to Dr. Partridge, deceased. Area, 17,789 acres. Population, 4,158. Salary, £55 per annum. Salary for Workhouse £25 per annum.

ROYAL SEA BATHING INFIRMARY, MARGATE.—Resident Surgeon. (*For particulars see Advertisement.*)

ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD STREET, MOORFIELDS, E.C.—House Surgeon. (*For particulars see Advertisement.*)

SAINT COLUMB MAJOR UNION.—Medical Officer to the First District, in succession to Mr. E. Fulford, resigned. Area, 10,807 acres. Population, 2,457. Salary, £26 5*s*. per annum.

SCARBOROUGH UNION.—Medical Officer to the Scarborough District, in succession to Dr. Megget, resigned. Area, 2,348 acres. Population, 30,246. Salary, £130 per annum.

SEDGEFIELD UNION.—Medical Officers to the Sedgefield and Bishopton Districts and the Workhouse, in succession to Mr. T. Thompson, deceased. Sedgefield—Area, 14,115 acres. Population, 2,811. Salary, £15 per annum. Bishopton—Area, 9,677 acres. Population, 868. Salary, £15 per annum. Salary for Workhouse, £5 per annum.

STAFFORDSHIRE GENERAL INFIRMARY, STAFFORD.—House Surgeon and Secretary. Salary to commence at £100 per annum, with board, lodging and washing. Every candidate must possess a diploma or degree in surgery from the College of Surgeons in London, Edinburgh or Dublin, or from one of the Universities, and a qualification in Medicine which shall entitle to register, and they must produce unexceptional testimonials of moral conduct. Applications, accompanied by diploma or certificates of registrations, with copies of testimonials. to be sent under cover to the Secretary, addressed to the Committee of Selection, on or before July 24th.

STAMFORD UNION.—Medical Officer to the Stamford District, in succession to Mr. J. M. Heward, deceased. Area, 9,671 acres. Population, 10,602. Salary, £65 per annum. Salary for Workhouse, £35 per annum.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY ROAD, E.C.—Assistant Physician. (*For particulars see Advertisement.*)

THE GENERAL HOSPITAL, BIRMINGHAM.—Resident Medical Officer. (*For particulars see Advertisement.*)

WOKINGHAM UNION.—Medical Officer to the Wokingham District, in succession to Mr. T. H. Cresswell, resigned. Area, 18,565 acres. Population, 6,471. Salary, £90 per annum.

DEATHS.

ANDREWS, C. A., Brigade-Surgeon, at Bangalore, Madras Presidency, on June 12th.

HEWARD, J. M., M.R.C.S., of Stamford, at Bath, on June 29, aged 54.

IRWIN, AHMUTY, M.D., C.B., Inspector-General of Her Majesty's Hospitals and Fleets, retired, at Southsea, on July 3rd.

WALKER, GEORGE ALFRED, M.R.C.S., L.S.A., at Ynysfaig, near Dolgelly, N. Wales, on July 6th.

NOTES, QUERIES, AND REPLIES.

ON THE TREATMENT OF CHOLERA.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—The man suffering from cholera has been suddenly deprived by diarrhœa of an enormous quantity of the fluid part of his blood. This loss is one of simple transudation, increasing as the powers of life decrease. This *sudden* loss produces intense prostration, and renders the heart powerless to perfect the circulation. The body thus deprived of oxygen, speedily runs into decomposition, even before life is extinct. Have we any agent by which we can collect and press forward these scattered and lethargic drops of blood to the heart, and enable it to renew the circulation, and with it the blessings of oxygen to the body? My reply is emphatically—Yes! Flannel bandages from the toes to the trunk, around the abdomen, and from the fingers to the body, will effect this object perfectly. Remark that the effect is gradual, increasing with every turn of the roller, but would be in full force in about twenty minutes. By thus exposing the blood in the lungs to the action of oxygen in its diluted form, as it is in the air, instead of pure oxygen, the reaction would neither be too rapid nor too dangerous. In confirmation of my views, I have this day learnt that it is the custom in India to wear a double roll of flannel around the abdomen, as a preventive to cholera. The other advantages resulting from the use of the flannel bandages are—(1) That they prevent the escape of heat from the body of the poor creature who is already in a state of refrigeration. (2) By their firmly and equally grasping both flexor and extensor muscles alike, they are steadied, and rendered much less likely to be affected with spasmodic action or cramp. (3) By their steady *elastic* pressure and support of about 160 pounds, they persistently keep up and sustain the circulation of the blood, which they had previously restored. (4) That the oxygen thus well secured to the blood, will, I believe, prove quite sufficient to neutralise the original poison, and also destroy its effects. (5) That this much can at least be claimed for their use, that they remove from nature a stumbling block, which prevented her from exercising her marvelous recuperative powers. Diluted sulphuric acid is the best medicine to arrest the flux from the bowels, acting also as a tonic. It should be given in five minim doses about every half hour, with rice gruel. By adopting this plan, the natural process is brought about, that of the starch being converted into grape sugar. Plenty of white of egg, well whipped up, so as to nourish the body and convey oxygen into the stomach, which it will appropriate, should be given. Opium, in small quantities, and other stimulants should be given according to the necessities of the case. May it not be well, through the medium of wet sponge over the thorax, to apply a continuous but gentle current of galvanism, so as to stimulate the heart's action, keep alive the respiratory movements, and thereby assist in the maintenance of the functions of the body?

I am, Sir, yours &c.,

HY. ARMSTRONG RAWLINS, M.R.C.S.

6, *Sutherland Gardens,*
Maida Vale.

Graves's Disease.—Consult (1) *Dublin Journal of Medical Sciences*, for March and April, 1883. (2) *Ophthalmic Review*, for June, 1884.

Examination for the Membership of the Royal College of Surgeons—Primary Examinations:—The following were the questions on Anatomy and Physiology submitted to the 234 candidates for the diploma of membership of the Royal College of Surgeons on the 27th ultimo, when they were required to answer four, and no more, out of the six questions, viz.:—

Anatomy, from 1 to 3 o'clock.—1. Describe the Elbow-joint. 2. Describe the Dissection necessary to expose the Extensor Brevis Digitorum from its origin to its insertion. 3. Give the Attachments and Nerve-supply of the two Pterygoid Muscles. What structures are in relation with the External Pterygoid? 4. Describe the Dissection required to expose the Middle Third of the back of the Forearm as far as the bones and interosseous membrane. 5. Describe the Cæcum, giving its investments, relations, and blood-supply. 6. Give the course and relations of the first part of the Right Subclavian Artery. Enumerate the Arteries with which its branches anastomose.

Physiology, from 4 to 6 o'clock.—1. Describe one complete cycle of the Heart's action. Give the relations of the sounds and impulse to the several events you name. 2. Give an account of the structure of a small Bronchial Tube. Assign to each of the textures its function, and explain its exact mode of action. 3. Describe the structure of the Mammary Gland. State the facts which tend to prove that milk is a secretion and not the result of filtration. 4. Explain the mechanism of Reflex and of Voluntary Micturition. 5. Describe the structure of a Lymphatic Gland. What is known of its function? Give the facts on which your statements rest. 6. What are the Physical and Chemical changes that accompany the contraction of Striated Muscle?

Pass Examinations.—It is stated that as many as 360 names have been entered for the ensuing pass examinations for the diploma of membership of the Royal College of Surgeons, being the largest number on record.

COMMUNICATIONS RECEIVED—

Dr. W. Hitchman, Liverpool; Dr. Sharkey, London; Dr. Fredk. Taylor, London; Dr. Clifford Allbutt, Leeds; Mr. Geo. Rendle, London; Mr. Lawson Tait, Birmingham; Mr. A. Savory, London; Dr. A. D. Macdonald, Liverpool; The Secretary of the Sanitary Institute of Great Britain, London; The Secretary of St. Thomas's Hospital, London; The Secretary of the Apothecaries' Society, London; Dr. J. Beddoe, Clifton; The Secretary of the National Dental Hospital, London; The Bedell of the Royal College of Surgeons, London; Dr. Pye Smith, London; Dr. F. T. Roberts, London; Mr. J. T. W. Bacot, Seaton; Our Dublin Correspondent; The Registrar-General of the Punjab, Lahore; The Hon. Secretaries of the Students' Society of the Dental Hospital of London; Dr. F. J. Mouat, London; The Secretary of the Royal Institution of Great Britain, London; Mr. T. M. Stone, London; The Managing Director of the Isle of Wight Sanatorium, Limited; The Secretary of the Naval Medical Supplemental Fund, London; The Registrar-General, Edinburgh; The Director-General of the Army Medical Department, London; Miss Mary Wardell, London; Dr. Wiltshire, Reigate; The Secretary of the Local Government Board, London; Dr. Biss, London; The Secretary of the Volunteer Medical Association, London; Dr. Willoughby, London; Mrs. Lankester, London; Dr. Shelly, Hertford; Mr. R. W. Parker, London; Our Belfast Correspondent; Mr. Pulbrook, London; Mr. A. H. Rawlins, London; Messrs. R. Lugon & Co., London; The Bodega Company, Limited, London; Messrs. Street & Co., London; The Secretary of the Sanitary Institute of Great Britain, London; Our Paris Correspondent.

BOOKS RECEIVED—

Report of the Health and Sanitary Condition of the Borough of Warrington—National Association for the Promotion of Social Science—The Later History of Spirillum Fever at Bombay, 1882-83—Congrès Internationale de Médecins des Colonies, Amsterdam—Report of the Improved Industrial Dwellings Co., Limited.—Annual Report of the Borough of Huddersfield, for the year 1883—Epilepsy and its Treatment, by A. Hughes Bennett, M.D. Lehrbuch der Physiologie, von Dr. A. Gruenhagen—The Foundation of Death, by Axel Gustafson—A Letter to the Governors of the Derbyshire Infirmary, by W. Ogle, M.A., M.D., &c.—A Report on the Bill for the better Government of London—The Alpine Winter Cure, by A. T. Tucker Wise, M.D., L.R.C.P., M.R.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—Journal de Saxon—Centralblatt Therapie—Revista Internazionale—The Practitioner—The Ophthalmic Review—The Detroit Lancet—The Australasian Medical Gazette—Archives de Tocologie—The Morningside Mirror—The Archives of Pediatrics—Die Nation.

APPOINTMENTS FOR THE WEEK.

Friday, July 11 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, July 12.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, July 14.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, July 15.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2¾ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, July 16.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, July 17.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES

AND GAZETTE.

No. 1777. LONDON, SATURDAY, JULY 19, 1884.

Contents.

NOTES ON THE RADICAL CURE OF HERNIA.

By W. MITCHELL BANKS, F.R.C.S.

Surgeon to the Liverpool Royal Infirmary, and Professor of Anatomy, University College, Liverpool.

(Continued from page 12).

Points in the operation.—Before every operation for femoral or inguinal hernia it is of the greatest importance that the pubes, scrotum, and inner side of the thighs should be shaved, and carefully disinfected by repeated washings with carbolized water. Unless this is done thoroughly, any attempt at carrying out antiseptics, properly so-called, must end in failure. During the process of cutting down upon the sac, the very minutest vessels should be tied, and this should be most carefully done during the whole operation, so that, when the sac comes to be opened, no blood may flow into the peritonæal cavity. The great mistake in one's first operations is in thinking that the sac has been reached long before it has. In this way two or three extensive strippings are often made, and then, after all, another layer or two are found. By these strippings the cellular tissue is torn up, as a result of which troublesome sloughing and suppuration are apt to occur. At its lowest part the sac is always more or less adherent to the tunica vaginalis in inguinal hernia, and at that point requires very careful separation, otherwise the tunica and its contained testicle are apt to be pulled bodily out of the scrotum. No very serious harm results from this, even when it does happen, but it tends to that tearing up of the scrotal tissues which has just been deprecated. As regards the structures of the cord, the only one about which there need be any anxiety is the vas deferens. Very early on in the process of clearing the sac it ought to be found, and kept carefully in view during the whole operation. As for injury to the vessels or other constituents of the cord, this does not seem to affect the testicle at all. In the case of congenital inguinal herniæ, there is always much more difficulty in separating the cord than in any other form, and in young children, in whom the peritonæal tube is very thin, it is most difficult. In congenital herniæ it is necessary to divide the tube a little way above the testicle, so as to make a tunica vaginalis, which ought to be stitched up with fine catgut. The rest of the tube is then stripped up to the ring, and tied and cut off in the usual manner.

The treatment of omentum contained in the sac.—When the sac has been dissected out, and the contained bowel pushed up into the abdomen, there is often a strong temptation to ligature it at once without opening it. I do not consider this a prudent thing. I think the sac should always be opened and examined, because, although one may feel absolutely certain that no bowel remains, there is often a very thin slip or tag end of flattened omentum lying just outside the

ring, and adherent around the neck of the sac. Now if this be cut across with the sac, its inner end still remains attached to the abdominal wall opposite the internal inguinal aperture and acts as a pioneer for more omentum and for bowel to come down. Concerning the removal of omentum, whether adherent or not, not the slightest dread need be entertained of cutting away any amount of it. Recollecting what a source of anxiety a bit of omentum used to be, and how one was always warned against meddling with it if possible, I cannot but regard with astonishment the way in which one in the present day cuts away pouches of peritonæum and sweeps off huge masses of omentum apparently with impunity. Now that I look back upon it, this dread of omentum was without doubt the reason why many cases of operation for strangulated herniæ proved fatal. For instance, the sac being laid open, bowel and a piece of adherent omentum were found. The stricture was freely divided, and the bowel returned. Then the omentum, if adherent, was left lying in the sac, unless, indeed, it were so gangrenous that its removal was obviously imperative, and even then it was cut away with fear and trembling. Septic suppuration having taken place in the superficial tissues, spread to the sac, crept up along the omentum to the peritonæal cavity, and so caused death from putrid absorption.

One great comfort about large masses of omentum is that, however big they may be, they are always tolerably narrow at the neck of the sac, if they have been down for any length of time. It is quite satisfactory to find how, after two or three ligatures have been tried, a great bulk of fat can be cut away, only requiring that a comparatively small stump need be replaced in the abdominal cavity. Small pieces can of course be removed by one catgut ligature, but large masses must be split up into half-a-dozen portions if necessary, and these tied separately either with thick catgut, or, when hard and dense, with carbolized silk. I have removed many pieces as large as the fist, one three-quarters of a pound in weight, another a pound and a half, and another two pounds all but three ounces. The solitary point of danger is the bleeding. The amount of omentum removed and the number of ligatures put on seems of no consequence, but at any sacrifice of time and patience every possibility of hæmorrhage must be securely provided against before the stump is returned. In separating adherent omentum from the body of the sac, bleeding may be disregarded, provided no blood is allowed to run up into the peritonæal cavity. But at the neck of the sac, where adhesions are very prone to occur, the greatest care in separation should be exercised. It is most important that the adhesions at this part should, if possible, be broken down, as, if this is not done, the omentum stump remains fixed to the abdominal wall at the inner opening of the ring or even in the canal, and so remains as a persistent guide for something more to come down in its track. The omentum stump should be cut quite adrift from the abdominal wall, and when pushed up should tumble loose into the abdominal cavity. As far as I can see it does not matter how tight the ligatures are tied, the tighter the better. Only the omentum should not be cut off too close to the ligature, lest it slip. A good large stump should be left for safety's sake. In splitting the omentum up to allow of several ligatures being put on, too great care can hardly be exercised not to split up a big omental vein. These veins are excessively thin, and a very little pressure empties them. An empty one can be quite easily torn longitudinally, and then, as one side goes to each tied-up pedicle, it is kept permanently open, and when the stump is returned, and all pressure taken off, it bleeds furiously. This very accident once happened to me, and gave me a very great fright. The patient, Edward Haucox, aged 41, was admitted with a strangulated inguinal hernia, upon which I proceeded to operate. Having dissected out the sac, I opened it, divided the stricture, and reduced the gut. There remained a considerable mass of adherent omentum, which I split into three pieces with my fingers, and having tied each piece with catgut, I cut off the mass, and restored the stump into the abdomen. No sooner was this done than venous blood began to pour out of the external ring. Thinking my incision for dividing the stricture had cut some abnormal vessel, I slit up the neck of the sac and the external ring, and saw the nick I had made, from which no blood was coming. The bleeding evidently came from the abdominal cavity, as was shown by the fact that when a coil of bowel came down and plugged up the inguinal ring it stopped, but the minute this coil was pushed up by the finger the blood gushed out again. It was clear that the bleeding could only come from the stump of the omentum, which had been returned into the abdominal cavity, and that this must be found at all hazards. So I ripped up the inguinal canal, and then the abdominal wall along the outer edge of the rectus for a good way, but the omentum would not come in sight, so the ripping was continued to a point higher than the navel. By this time nearly all the bowels were rolling about the table or over the man's abdomen. At last the omental stump was found within an inch of the transverse colon, and from it blood was issuing, although the great gushing had stopped. I was in too great a hurry to note exactly what had happened, but put two catgut ligatures around the omental stump, and at once proceeded to replace the bowels; a task which took all hands to accomplish, as they slipped about like water. The peritonæum was stitched together with five catgut sutures; after that fourteen silver wire stitches were employed to unite the muscles, and then the skin was sewn up. Finally the sac was cut off and tied, and the ring pillars were brought together with a couple of wire sutures. Once or twice during the operation the patient seemed at death's door from shock and hæmorrhage, but by keeping his head low, and injecting him with ether, he was kept going. Fortunately he made a most excellent recovery, with only a couple of degrees rise in temperature during the first three days. He works as a painter and wears an abdominal belt to support the great line of incision, but no truss, as no hernia comes down. A case of this sort naturally gave one great anxiety for the moment, and I have ever since been scrupulously careful both in splitting up omentum, and in tying it afterwards.

Removing the sac and stitching the ring pillars.—The sac having been thoroughly separated and opened, and its contents having been disposed of, it should be well pulled down and tied as high up as possible, whether at the femoral or at the inguinal apertures. The great object of the whole proceeding is to restore a uniform surface to the peritonæal wall, and hence the higher up the sac is tied, the better is the chance of this being permanent. When this operation was first undertaken the theoretical critic at once started the objection that as the peritonæum was an eminently elastic membrane, you might take away the sac as cleanly as it was possible to do, but the distensile membrane would be immediately pushed out into another sac opposite the weak aperture. As a matter of fact this is not so, but, apart from that, the reasoning was not quite correct. The movement of the bowels over the front of the abdominal wall is, so to speak, a liquid movement. It is the searching sweep of a great wave slowly rushing up the face of a breakwater. If the breakwater can only preserve a smooth surface, with every joint well cemented, then it will stand, although there may be more than one weak place in its backing. But the moment the surface gives way at any point, there the water persistently presses in and in till the stones

around are undermined and a breach is made. Clearly, then, however we may strengthen our bulwark behind by stitching up the ring and applying a truss, the first thing to do is to keep its water surface—its peritonæal surface—free from any inviting pouch or depression. Indeed, in the case of femoral, umbilical or ventral ruptures this is all we can do.

Turning next to the pillars of the ring I employ two, three, or four silver wire suturcs to pull them together, inserted with a curved needle in a handle. Room must, of course, be left at the lower part of the ring for the spermatic cord to pass through. The wire should be thick ; so thick that a single knot on it will suffice to make it hold without any second knot or without twisting. Then it should be cut very close to the knot, so as to leave no sharp projecting ends. In the few instances where I have seen a wire suture work its way out, this point had not been attended to, and its sharp ends had irritated the tissues till they ejected it. With the ends cut close off, it is simply a minute circle of silver ; than which there is nothing less irritating. I adhere to the silver suture and strongly recommend its use for the one reason that its hold is certain and enduring beyond that of any other suture, while it is as harmless as any. Of course the theorist, who wants to use the latest novelty in sutures, has his cut and dried objections to the somewhat old-fashioned wire. It *must* be clumsy and cumbersome ; and it *must* come out ; and it *must* do this and the other. The simple answer is, it doesn't. It quietly embeds itself and is no more seen except in the rarest instances, where a great deal of suppuration has taken place. In the case of the man who had hæmorrhage from the omentum, recently narrated, some sixteen silver sutures were put in, and we never saw any of them again. Of course every surgeon may use what suture he pleases ; all that I object to is that persons should evolve out of the depths of their own consciousness arguments against the wire suture, when they have never tried it and don't know anything about it. Personally, I have tried all sorts and have decided upon the silver wire as the best.

When an inguinal hernia is not very large the approximation of the ring pillars is quite easy. But in the case of great ruptures all the parts about the ring and canal are widely separated and displaced. In such cases I always feel very carefully about with the forefinger of the left hand for the epigastric artery before thrusting the needle through the tissues. On one occasion I did discover it, and it was just where I was about to push in the needle. It would almost certainly have been pierced, a circumstance which might have given risc to not a little trouble and delay.

Descent of large intestine in inguinal hernia.—The discovery of a piece of large intestine in an inguinal sac is one of the most troublesome conditions I know. I scarcely think it can be of frequent occurrence. At any rate I have only seen it twice in my own practice. The following instance will show what occurs. The patient was an extremely big fat man, 32 years of age. who had had a left inguinal hernia in progress for several years. No truss had the slightest command over it, and it was becoming a serious hindrance to him in his work. As he lay in bed the tumour was about the size of a very big cocoa-nut. It was evidently composed mainly of omentum, but there was a considerable amount of bowel also. Steady squeezing reduced some of the bowel, but not all. He was kept for a fortnight on his back with the pelvis elevated on pillows, and a bag with about four pounds of small shot over the tumour. This certainly lessened it somewhat, but only, I suspect, by draining it of its blood and fluids generally. Accordingly an operation was agreed to. I cleared the whole of the front of the sac, which was of great size. It happened to be an extremely thin one, and in doing this I made two holes in it, out of which omentum tumbled in such quantities that I thought it best to get quit of it at once before further clearing the sac. The omentum formed a great mass, and had to be tied off in several portions with carbolized silk ; weighing two pounds all but three ounces when removed. The sac was now quite empty, but it was evident that behind it was something thick and soft, to the front of which it was adherent. A little further clearing up showed that this was a piece of large gut, probably sigmoid flexure, extending down about three inches below the outer ring. The sac formed its peritonæal covering in front, but posteriorly it had none, and when it was gently detached from neighbouring parts its muscular fibres could be quite clearly seen. On the first occasion, when a condition of a similar sort occurred to me, I thought I had adherent bowel to deal with, and laboriously worked away for a long time stripping off the peritonæum till I discovered my mistake. This time, fortified by experience, I simply loosened the free posterior surface of the bowel, and, with my finger, freed the sac round the outer inguinal orifice. Then I carefully stitched up the holes in the sac with catgut, and finally by steady pressure pushed bowel and sac up into the abdomen. Then the pillars were brought together, which was a work of some trouble, as the hole was so big that the outer one practically did not exist, so I pulled the inner one down to Poupart's ligament just in front of the femoral vessels. The case was only done a few weeks ago, but, as soon as the man can bear it, he will be fitted with a powerful truss which will almost certainly enable him to get about his work in comfort, whereas his former condition did not offer the faintest prospect of relief by support, but must have steadily continued more and more to disable him.

In such cases the one point is to be able to recognise early that it is great gut that is down—bare behind but having the sac coating it in front—and not to begin stripping it of peritonæum, under the impression that one is dealing with inflammatory adhesions, but to sew up the sac and push it and the bowel bodily into the abdomen.

Ventral and umbilical hernia.—The management of these forms of rupture I have found the most difficult of all. Seeing that those of them which require radical cure are invariably of large size and old standing, it happens that by long continued pressure the skin is usually adherent to the sac. Sometimes, even, there has been ulceration, and then the sac is covered only by cicatricial tissue. They almost always contain omentum, which becomes intensely adherent to the sac, and gets kneaded and worked up into hard, knotty masses with fibrous cords between them, and even small spaces, until the whole resembles a fibro-cystic tumour with pieces of fat scattered throughout it. It is most troublesome to clear away. Then the abdominal aperture is always of great size, and its margins are so thinned and fibrous in character, that any attempt at paring its edges, and pulling them together is hardly practicable except in a few instances. I have been obliged to content myself with removing the sac as close to the aperture as possible, and then carrying away all superfluous lax skin, so as to tighten up the abdominal wall as much as possible. An abdominal support must invariably be worn afterwards. The first case I did strongly impressed me with the necessity of this. The patient was a young powerful married woman, 25 years of age. She had a ventral hernia of large size which gave her great trouble. I operated upon it, and when she left the hospital everything seemed excellent ; no tumour, and no impulse on coughing. She came back a month or two afterwards, and things were quite satisfactory. She was warned to wear a support and said she would. Then I lost sight of her for two years, but found her out again. She had taken to drunken

ways, had never got any support, as she was told to do, and had neglected everything; so that her hernia had come back and was as big or even bigger than before. As an example of a very bad case I may cite one upon which I operated some two or three months ago. The patient was a stout healthy married woman of 35. Just below the navel were two large tumours. They were not unlike two great, elongated mammæ, diverging below, but united above, where they seemed to run into each other at a common neck. They both obviously contained bowel, and the left one omentum also. On straining in the erect position they became fuller and tenser, while in the recumbent position a certain amount of their contents could be returned, but not much. The great bulk was irreducible. The left one had given the patient a great deal of suffering for years, owing to constant ulceration of the skin covering it, so that there was hardly a bit of real skin on it: nothing but cicatricial tissue. There was in progress an ulceration about the size of a penny. The patient's life was rendered very wretched by this condition of things, and she was willing to encounter any reasonable risk for its cure. I attacked the left tumour and with the greatest care made a superficial incision over it. It was fortunate one did not go very deep, for it soon became apparent that over the most prominent parts of the tumour, where friction and ulceration had been greatest, the bowel was covered only by cicatricial tissue closely adherent to it; not even the sac could be distinguished. The bowel was transverse colon. Then ensued a most difficult and tedious job, that of separating this adherent cicatricial covering from the gut, so that it might be returned into the abdomen, It took nearly an hour to do it, and eventually at one spot I went clean into the bowel and made a hole in it which would admit the little finger. I turned its edges inwards and stitched it carefully up with catgut. By patient work the bowel was at last freed and pushed into the abdomen, an antiseptic pad being placed over the hole to keep the bowels in and the blood out. Then the omentum was pulled away from the sac, divided into sundry pieces, and tied as deep down as possible in the aperture. Having finished the left tumour I turned to the right one, but fortunately it turned out a much easier matter to manage than its fellow. It contained small gut, which was only slightly adherent, and was easily separated and reduced. Curiously enough, although there were two tumours, they both came out of one large aperture. Some fibrous bands had given a bias to the great intestine and omentum in one direction, and to the small intestine in another, and so they had formed separate sacs for themselves, having a common neck. This thickened neck I first stitched through and through from side to side, as close to the hole as possible, and then, shearing it away, stitched it again over the cut edges. I did so, because thorough union and adhesion of the neck of the sac were imperative, seeing that the hole was so big that it was with difficulty that the bowels were kept in by the hand during the operation. A violent fit of coughing or retching afterwards would have sent everything flying, unless this had been obtained. Finally a great piece of skin was swept away, which had covered the two tumours, leaving only one long transverse line across the abdomen, along which the skin was tightly braced up to give additional support. The patient suffered a good deal from shock as the operation took nearly two hours to do, and was most troublesome in its details. She had nothing but ice and opium for some days, lest the hole in the bowel, which we had stitched up, should give way. She made an excellent recovery, however, and is now going to be fitted with an abdominal support which will keep her in comfort.

Inguinal hernia with undescended testicle.—In those cases where the radical cure is undertaken for hernia coming down behind an undescended testicle, the latter ought always to be removed. Such a testicle may almost always be considered to be practically a useless organ. It will neither go up nor down, and remains just outside the ring, effectually preventing the efficient action of a truss. I have done this in two cases, and as the removal of testicle and cord leaves nothing to come through the ring and so keep it patent, a really perfect cure, without the necessity of wearing a truss, may be expected in such cases. The two patients upon whom I performed this operation, were both young sailors, and their testimony was almost identical. They each had an undescended testicle lying in the ring; they each fell a distance of some feet, giving themselves a considerable shock, and in each instance the testicle bolted down, followed by a knuckle of intestine. Great pain with symptoms of shock and strangulation followed. The bowel being reduced, the sac, testicle and cord were removed as far up as possible, and the pillars drawn together in all their extent. I saw both men more than three years after the operations. One was working as a fireman on board a steamer, and the other was a quarter-master; both most laborious occupations. They wore no trusses and had not a trace of impulse on coughing, the rings feeling as firm as any other part of the abdomen.

After treatment.—As regards dressing, I always use a perfectly new sponge, wrung out of carbolic solution. Its elastic pressure is most efficacious at once in holding the disrupted parts together, and in resisting the shock of straining from subsequent coughing or sickness. In spite of all antiseptics the cellular tissue of the scrotum and cord often suppurates pretty freely. After the second day or so, when one is pretty sure that the neck of the sac where ligatured is firmly adherent and closed, if suppuration should take place, the more complicated dressings may be left off, a few stitches taken out, the wound well syringed and dusted with iodoform, and then left to granulate up like any other wound.

The application of the radical cure to cases of strangulated hernia.—As regards the application of the radical cure to cases of strangulated hernia it is certain that in due time it will come to be considered a necessary part of the operation, wherever sufficient help is obtainable. But there is no doubt that in the case of a large inguinal or umbilical hernia the stripping of the sac and all the subsequent details of the radical cure involve a great amount of operative work, as compared with the simple process of opening the sac and returning the gut. Many a country surgeon does herniotomy over and over again during the middle of the night, with a single assistant, perhaps, and with the light of a couple of candles. Under such circumstances it cannot be expected that he should undertake an elaborate operation. But in hospital practice, or where there is plenty of assistance, the radical cure should always be undertaken, because, in addition to preventing further descent of the bowel, it renders herniotomy infinitely less dangerous. The old idea used to be that patients died from general peritonitis after herniotomy, chiefly on account of meddling with the peritonæum. This was a mistake. Peritonitis, pure and simple, is probably not a dangerous affair, as one may constantly observe in uterine affections, where the pelvic peritonæum is repeatedly inflamed, without any necessarily disastrous consequences. Moreover, the old bogey—the dreadful danger of even scratching the peritonæum—is defunct. It seems to be a very harmless membrane and will stand all sorts of rough treatment, provided you don't put poison into it. But to that it is amazingly sensitive, and sucks it up as sand does water. I have seen a good many autopsies after herniotomy, and my general impression is that in nearly all of them the external wound was dirty and often sloughy, that sanious pus had crept up the sac, that the peritonæum for some

way round the inner ring was covered with flaky lymph, that the strangulated piece of bowel and some neighbouring coils were also inflamed, and often glued by soft adhesions round the ring, and that, perhaps, an injected condition, or some peritonitic lymph might be found over some coils of small gut elsewhere. But that is not enough *inflammatory* mischief to kill a man. No, it is not the peritonitis but the septic absorption that kills. Many years ago, long before the radical cure was put in practice, I was convinced of this, and after reducing bowel and omentum, used to wash out the sac thoroughly, and then carefully stitch up the opening in it, so as to shut off the abdominal cavity. If, then, in a case of strangulated hernia the bowel is thoroughly wiped and cleansed, if no blood is allowed to run up into the abdomen, and if the sac is tied off, then the peritonæal cavity is securely closed against the entrance of all infection from without and the chiefest source of danger at once removed. To add to the safety of this proceeding the incision made to relieve the stricture should be of the smallest dimensions, and, in very many instances, none need be made at all. By a little patient boring with the forefinger, a large number of strictures will yield to dilatation. They are often only of the flimsiest nature, although from their situation quite sufficient to prevent all attempts at manual reduction.

As regards the fatalities which have occurred in the 26 cases of strangulated hernia upon which the radical cure has been performed, they are, of course, of no use whatever in determining the danger to life of the radical cure *per se*. But they are distinctly of service in showing whether the addition of the radical cure to the ordinary operation for strangulated hernia has rendered that operation more dangerous or more safe. Out of the 26 cases there have been 3 deaths, or as nearly as possible 1 death in every 9 cases. This I imagine is a very good average, especially as there were some extremely bad cases among them. In 12 out of the 26 cases omentum had to be removed, the masses in some instances running from half-a-pound to a pound in weight. One was a case where eight inches of bowel were removed ; another was the case of bleeding from the omental stump, mentioned in the paper, where the abdominal wall had to be slit up. In one patient the hernia had been reduced *en masse* twenty-four hours after its first appearance, but, being believed to be safely returned, it was only the continued persistence of marked symptoms of strangulation which caused the patient's removal to the infirmary a week from the time the bowel was first nipped. In another the sac contained bloody serum along with nine inches of gut of a very dark claret colour, covered with lymph and with extravasations of blood beneath its peritonæum ; so bad, indeed, that returning it into the abdomen seemed a very risky proceeding. Of the patients who died, one was an old, worn-out bronchitic man of 77, who succumbed a week after the operation, more from bronchitis than anything else. Another was a woman over 70 with a large umbilical hernia, involving the removal of a great deal of omentum ; and the third was a gentleman over 60, with a very weak heart. At the time of life of these patients any surgical proceedings, even the smallest, might kill, far less such a serious matter as a strangulated hernia followed by operation. In none of the three did the general symptoms point to septic poisoning.

The fatal case, among the 36 instances of uncomplicated radical cure, occurred in a male child of two years and two months. He had a congenital inguinal hernia, which, at the time of birth, was as big as an egg. It had increased to about twice that size. About six months before his admission he had for some reason been tapped, which, I suspect, made matters worse, and helped to produce the adhesions subsequently found. He had been in a hospital for ten weeks, where every effort had been made to get a truss to act, but in vain. The hernia seemed to consist of bowel alone, but was absolutely irreducible, so that no truss could possibly be worn. At the operation there was found small intestine adherent firmly to the sac, and also great intestine, which looked like a piece of ascending colon. Great difficulty was found in separating the small intestine, and many points on its surface bled so sharply that they had to be tied with fine catgut. As for the great intestine, I did not in this case quite recognise the relation of it to other parts, and attempted to strip it of peritonæum when I ought to have left it alone. The operation took a very long time, and the child never got over the shock. It lay in a kind of stupor, moaning at intervals, and died about thirty hours afterwards. After death a piece of the small gut was found, with the ligatures on it, congested and with bright spots of ecchymosis on it. For about two inches the peritonæum had been stripped from the ascending colon and the exposed surface was covered with flaky lymph. There was no general peritonitis. About a teaspoonful of pus was found beneath the skin of the scrotum. To operate on this child was really a necessity, as the hernia, which was quite irreducible through adhesions and quite incapable of support, would have certainly rendered him practically useless in after life. But this was only small consolation. The number of cases reported in England is as yet too limited to form any just judgment of what the mortality from the radical cure is likely to be, and can only be satisfactorily determined by individual men publishing their own complete lists of cases, whose number shall be sufficient to give the necessary average : just as was done by Spencer Wells, and Keith with ovariotomy. To try to get any average from isolated cases reported in the journals is of no use. I have known many a surgeon publish a couple of successful ones, and after that, meeting with a fatal one, the "*subsequent proceedings interested him no more.*" As I have never yet operated unless there was a very clear call for curative measures, the result has been that most of the operations have been by no means trifling, and in not a few instances very serious in character. I have, therefore, no hesitation in detailing my failure, seeing that one death in 36 cases, occurring during the period when one is getting one's knowledge and experience, is not such a serious matter. It is to be hoped that in future a death will be much rarer still, but that the operation will ever be pronounced free from danger cannot reasonably be expected.

In conclusion, I must once more apologize if I have appeared at all egotistical in the observations just made, seeing that it is almost impossible for anyone to write the history of his own experiences, and what they have taught him, without laying himself open to that imputation. I do not consider that my views are by any means final, but trust that every year will add to our power of perfecting a valuable piece of surgery.

SOME OBSERVATIONS ON ENDEMIC FEVERS IN INDIA.

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The Croonian lectures on the climate and fevers of India, by Sir Joseph Fayrer, and the reports on enteric fever in India, published in the Departmental Blue Books, have again directed attention (more particularly that of medical officers serving in the country with British troops) to many unsettled points connected with their ætiology and pathology. For some years past there has been a growing tendency to consider all

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Indian fevers with symptoms of congestion or ulceration of Peyer's patches or solitary glands as enteric, without reference to origin, and despite very great irregularity in their symptoms, while the older authorities looked upon these lesions, in the majority of cases, as in no way specific but merely the result of the visceral congestion so commonly seen in severe cases of endemic fever.

The gradual reduction in official returns of the number of cases of climatic fever of a continued type is due more to the definition of enteric fever given in the "Nomenclature of Diseases," published by the College of Physicians, than to the disappearance from British cantonments in India of the endemic influences which produce them. Enteric fever is there defined as "a continued fever, characterised by the presence of rose-coloured spots chiefly on the abdomen and a tendency to diarrhœa with specific lesion of the bowels." These true rose-coloured spots are only exceptionally met with in the Indian type, and diarrhœa occurs in scarcely three-fourths of the cases. In many cases the temperature has frequent remissions during the course of the fever, often falling to normal, yet, when a morbid condition of these intestinal glands is suspected, it is necessary, in the absence of any allusion in the Nomenclature to the existence of any such lesion in remittent fever, to look upon such a condition as the anatomical expression of a pythogenic disease and to consider the case one of enteric fever. It is difficult to account for the stress which has been laid upon these lesions in the small intestine as characteristic alone of enteric fever. They are constantly met with in chronic dysentery, cholera, and hepatitis. Some years ago Dr. Gordon, late Surgeon-General, Madras, in his report on enteric fever in that Presidency, pointed out that the symptoms of a protracted attack of cholera, and the intestinal lesions found after death, were indistinguishable from those of the former affection. Moorehead, also, in his work on Indian diseases, when describing the pathology of dysentery and cholera, goes minutely into the changes which inflammatory action produces in the solitary glands of the ileum and in Peyer's patches. Taking a wider practical view than that now more commonly accepted in India, he was of opinion that any active or passive congestion of bowel, whatever the cause, would produce a similar congestion in its glands, with structural lesions or ulcerations if severe or protracted. It occurs, he states, in a transient form in simple ague and probably also in diarrhœa. He also gives details of severe remittents, in which these lesions were well marked. Coming to more recent authorities, Aitken states, under the head of remittent fever, that in young and robust men, recently arrived in India, there is often a tendency to a considerable amount of vascular excitement with marked symptoms of determination of blood, either to the head or to the abdominal viscera, at a very early stage in the fever. The pathological sequence of this determination of blood to the ileum would be, I think, as Moorehead states, ulceration. Fayrer also quotes numerous authorities, to the effect that tropical continued fever, not pythogenic in origin, may have the characteristic lesions of the home type. In notorious fever haunts, such as moist jungle grounds at the foot of hills, localities far away from the populous districts where enteric fever is supposed to abound, severe remittents are often met with at certain periods of the year. In these cases cerebral and visceral complications occur at an early period of the disease. To consider them cases of enteric fever and subsequently justify the diagnosis by an appeal to the condition of the intestinal glands, would be without a precedent as the nature of these fevers is known. Yet in cantonments we rely upon that very condition as a proof that the case is enteric.

In young soldiers dying from continued fevers in cantonments in India, no doubt these lesions are as a rule demonstrated, but in soldiers of some years' service, in whom the symptoms point to the same disease, they are frequently absent. On the other hand, they have often been met with in rapidly fatal cases of severe fever in which such a condition was not suspected. In three cases considered enteric, I found the spleen and the mucous membrane of the small intestine much congested, while Peyer's patches were atrophied and without evidence of recent change. In a second class of cases, with similar symptoms, the intestinal lesions varied from slight to severe congestion of these patches with congestion of the mucous membrane. In a number of cases, some with and some without ulceration, the cerebral symptoms were the most prominent feature throughout. In one exceptional case, in a patient aged 33, which ended fatally on the fifteenth day, the only lesions I found were an inflamed liver and congested kidneys. In this case there was high fever throughout, and constipation followed by diarrhœa with stools supposed to be characteristic of enteric fever. In a second case which ended fatally on the third day of illness, I found the spleen much congested and Peyer's patches enlarged and surrounded with a bright zone of inflamed mucous membrane as large as a penny. The mucous membrane also of the lower portion of the ileum was much congested and thickened, but without breach of substance. The membranes of the brain were inflamed, much serum was effused and the frontal convolutions were covered with a thick coating of recently exuded semi-consistent lymph. On admission the patient was very delirious with a temperature of 101·2°, from this he passed into a state of coma, with a temperature of 105°, and died in that condition 36 hours after being brought to hospital. Many of these cases, in which the lesions varied, differed considerably from each other during life, but anyone studying a consecutive series of them in the same station would be led to the conclusion that they had a common climatic origin and were different types of the same disease. When we consider the inflammatory nature of this class of fevers it is hard to see why so much diagnostic significance should be attached to the minute changes in these glands which result from that condition. If they become atrophied, as probably occurred in many of my cases, the spleen, liver, and, probably, the meninges of the brain would point to the real character of the fever.

When we come to consider mild types of Indian fever, this specific ulceration becomes a real stumbling block, and it is consequently very difficult to define where so-called simple continued fever ends, and so-called enteric commences. During the prevalence of the latter, we constantly meet with numerous cases of this simple continued fever, in which, as a rule, the fever period does not extend beyond eight or ten days, often in febricula less. In these cases there is as a rule a high evening temperature with partial morning remissions, and frequently the condition of the tongue and the bowels indicates intestinal irritation, probably some congestion. Often there is obstinate constipation and pain in the bowels, at other times there is bilious diarrhœa, which passes off in three or four days. That they are mild cases of endemic fever due to the operation of the same causes which produce the more severe form with visceral lesions hardly admits of a doubt. Imperceptibly they pass into it, and no sharply-defined line can be drawn between them. In some of these cases, as will be seen, after there were no good grounds for suspecting the existence of enteric complications, when the patients were convalescing, some unknown cause brought about a relapse, and a well-marked attack of a more severe type with visceral lesions followed. In other cases, almost similar as regards the original attack, convalescence was uninterrupted.

With regard to remittent fevers also there is the same difficulty. They too have frequent relapses, and if in the relapse there is evidence of bowel mischief, they come under the head of enteric fever. A fatal case of this affection in British soldiers is consequently now uncommon, compared with what was formerly the case.

The varying mortality in different outbreaks of continued fevers, and even in different corps serving at the same time in the same station, is often a common cause of perplexity, both as regards diagnosis and treatment. In the soldier of four or five years Indian service admitted to hospital with fever there is, owing probably to the atrophic condition of the intestinal closed glands, a marked falling off in the tendency to the severe enteric complications, which show themselves in the case of his younger comrade probably lying beside him. Consequently, in a regiment with a larger proportion of soldiers having the longer service, the mortality will be smaller, though the fever from which both suffer may be returned enteric. There is no doubt that the increase in the functional activity of the liver, which is a common cause of diarrhœa in new arrivals, is also shared by these glands, especially in the young adult.

In the Madras Presidency 54 cases out of 175 proved fatal; a mortality of over 32 per cent., as against about 18 per cent. at home (Gordon). This very high mortality is due, in a considerable proportion of cases, to the early supervention of acute meningeal inflammation. Now Moorehead, in his description of remittent fever, attributes a fatal result in fully one-third of his cases to cerebral complications of this nature, and he states that the proportion of deaths from this cause is still greater in the remittent fevers of sthenic Europeans. On analysing my own cases during the past five years, I find that out of a total of 24 fatal ones, death at an early period was to a great extent due to cerebral mischief. In two of these, death took place on the tenth day of estimated illness, and in the others on the third, fifth, seventh, and fourteenth days. On looking into the details of the *post-mortem* examinations in such cases, the intestinal lesions were found to vary from slight congestion to severe ulceration of Peyer's patches. The liver, kidneys, and spleen were often all congested, and the membranes of the brain much inflamed, and large quantities of serum were effused. Lymph in some places was found lying in a thin layer over the convolutions. Now Jenner describes this complication as an infinitely rare one in enteric fever, yet in India for nearly half a century it was looked upon as a very characteristic lesion in severe remittents.

This and other deviations from the home type of enteric fever are so common in continued fevers in India, that an analysis of a series of consecutive cases of febricula, simple continued, remittent, and enteric fever, all met with by me in the 1st Battalion, Oxfordshire Light Infantry during a period of nearly two years, may not be devoid of interest, as showing how difficult it is to draw sharply-defined lines between them, even when they occur at the same time.

During this period, from January 1882 to the present time, the regiment in question has been quartered in Bangalore, Madras Presidency. Its strength for the year 1882 was 854, of which 451 were 26 years of age and upwards; 392, between 20 and 26; and the remaining eleven, under 20. For the year 1883 its strength at the beginning of November was 896, of which 483 were 24 years of age and upwards; 400, over 20 and under 24; and the remainder under 20. In this year over 400 men were 26 years of age and upwards.

A draft joined the regiment on the 14th November, 1883. Its strength was 197, and the average age about 22, but up to the present none of them have been attacked with any form of fever. As a rule, fevers are absent at this time of year in Bangalore, and the health of British troops is good.

The actual age and the numbers of those attacked with the different forms of fever in both years are shown in the following table:—

	Enteric Fever.		Remittent Fever.		Simple continued Fever.		Febricular.	
	No. of Cases.	Age.	No. of Cases.	Age.	No. of Cases.	Age.	No. of Cases.	Age.
	1	14	2	20	2	21	1	16
	1	19	3	21	1	22	2	19
	4	20	3	22	4	23	2	20
	7	21	1	23	2	27	2	21
	11	22	2	24			6	22
	3	23	3	25			2	23
	2	24	2	26			2	24
	2	25	2	27			1	25
	1	26	1	28			1	28
	1	27					1	30
	1	28					1	33
							1	36
Totals	34		19		9		22	

It will thus be seen from this table that in all these fevers the age of greatest prevalence was from 20 to 25. The cases of enteric above the latter age were ill-defined, and with but slight evidence of intestinal complications. The distribution in each year was as follows:—ten cases returned enteric were admitted in 1882, and twenty-four in 1883; on the other hand, thirteen cases of remittent fever were admitted in 1882, and only six in 1883. There were seven cases of simple continued fever in 1882, and two in 1883. In 1882 there were only three cases of febricula, as against nineteen in 1883. With regard to period of prevalence—from the date of the arrival of the regiment in Bangalore until the 6th March there were no cases of any fever. Between this latter date and the 8th July, the first eight cases of remittent were admitted, and the first six cases of simple continued came in between the 11th March and the 16th April. The first four cases of enteric fever, all of whom died, were admitted between the 26th May and the 18th June. Between the 8th July and the 6th August, there were no admissions for any of these fevers. On this latter date a case of febricula was admitted, and was followed by a second on the 7th, and a third on the 20th. On the 19th of following month a case of remittent was admitted. There was a second in October, and three in November, one of whom died on the fifteenth day. The last case of fever in that year, one of remittent was admitted on the 25th November. In this second period, six cases of enteric were admitted between the 16th October and the 13th November, of which two died. It will thus be seen that the enteric fever period proper was very limited, 24 days in the first outbreak, and 31 days in the second outbreak. Now if these cases of enteric fever are dissociated from all the other fevers occurring in this year, the tendency would be to limit enquiries into causation to these two particular periods. In reality, a minute analysis of the majority of the other cases, if not all, shows that in the absence of many of the characteristics of the home type of enteric, the diagnosis was a matter of difficulty, and consequently they were returned simple continued fever, febricula, or remittent, though many points indicated their common origin and relation to each other. There were no cases of any continued fever in December.

(*To be continued.*)

University of Aberdeen.—Mr. J. A. McWilliam, A.M., M.D., London, has been appointed Assessor Examiner in Physiology and Zoology, in room of Dr. Jas. Anderson, London, resigned.

PLASTER OF PARIS IN THE SURGERY OF CHILDREN, AND MR. CHURCHILL'S FIXATION APPARATUS.

By JOHN A. SHAW,
Registrar, late House-surgeon Victoria Hospital for Children, S.W.

It is surprising how common amongst children are cases where treatment aims at either rest to parts, relief, or prevention of deformities. The restlessness and fidgeting of children makes it most difficult to obtain absolute fixation of a broken or deformed limb by means of ordinary splints and bandages. Their limbs and joints are so small and delicate that, no matter how carefully a splint is padded and bandaged, it is as a rule clumsy, and must be applied too tight, if the position is to be kept up or the child prevented from wriggling out of it. It is commonly supposed that the apparatus which is found sufficient to encase the limb of an adult will, with slight modifications, suffice for the limb of an infant, or young child, but this is very far from being found so in practice. The points of application are so limited, and the skin so tender, that it is absolutely necessary to distribute the pressure and encase the parts.

The value of plaster of Paris splints in some shape or form is deserving of more prominent notice, especially as so many cases find their way to the out-patient room, patients who have come long distances from the country, either old consolidated deformities beyond relief, or cases of commencing curvature requiring a jacket, or other deformities requiring a splint or apparatus of some sort.

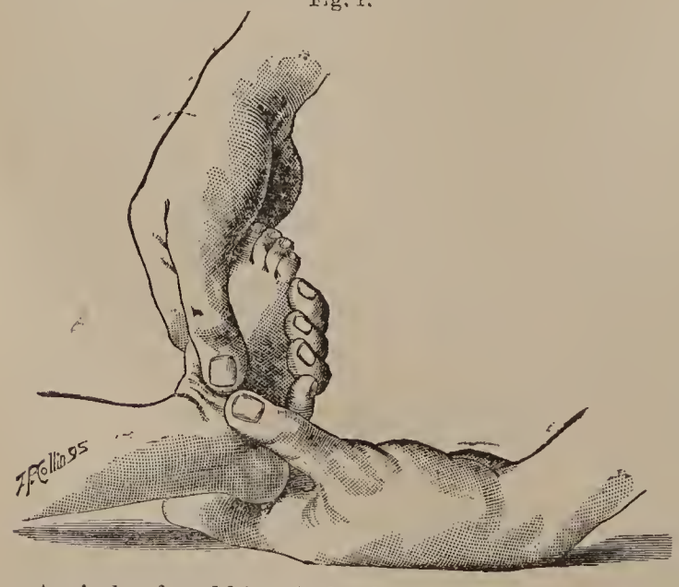
The following are examples of cases which are constantly under treatment at the Victoria Hospital :—

(1) *Talipes Varus.*—In these cases it is difficult to adapt a suitable apparatus. The usual appliances are troublesome and as a rule expensive. The smaller the foot the more unsatisfactory the apparatus, and notwithstanding all efforts, the foot will twist round to its original deformity. Scarpa's shoe, with its many screws and straps causing pressure on localized spots, is an apparatus which cannot be used with advantage in severe cases. The price too is prohibitory for poor people.

Mr. Churchill has simplified matters considerably by introducing an apparatus which he has kindly allowed me to describe.

The foot is first carefully and powerfully manipulated, the ligaments stretched, and the bones moulded as much as possible to the correct position.

Fig. 1.



A circle of webbing is fixed with letter clips round the foot, a strip of thick perforated tin about one inch wide is bent at right angles, the short arm of which goes across the sole of the foot, level with the joint of great toe, and is clipped to the webbing previously applied. The long arm goes more than half way up the leg, and to the end of this arm a piece of string is attached. By pulling the string the foot is levered into a proper position, and is easily kept so by a plaster of Paris bandage applied while the extension is being kept up. The muslin clings to the jagged edges and perforations in the tin, and holds the foot with a firm grip. A flannel bandage must of course be previously applied to the foot, ankle, and leg, and the jagged perforations of the tin cling to the flannel so as to prevent rotation of the limb within the case.

The child may be allowed to walk about with this encasement, after it is properly set. In this way the astragalus and os calcis will be further moulded into the proper position by the weight of the body. Should the plaster of Paris break away, a new case must be applied after carefully moulding the tarsal bones as before.

Talipes Valgus.—In these cases the fixation apparatus is the same, but the tin must be applied to the inner side of foot and leg so as to invert the foot and stretch the peronei and extensor muscles of the leg. The arch of the foot is generally so much collapsed that the child walks upon the inner side, and in addition to the tin, Mr. Churchill generally recommends a sausage-shaped pad, made so firm that the weight of the body will not materially compress it in walking, and this is placed across the sole of the foot, so that the tarsal and metatarsal bones shall be raised gradually into their normal position, and the arch of the foot be restored by centre compression.

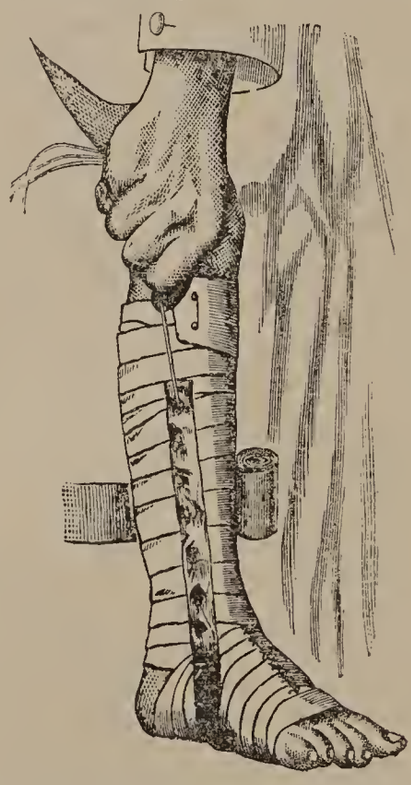


Fig. 2.

In modified cases, where there is simply relaxation of the internal lateral ligament and flat-foot, the sausage pad with a spica bandage of plaster of Paris around the ankle will suffice.

(2) Fractures of femur and tibia, complete and incomplete, and separation of epiphyses, are common with children. The fibula usually escapes.

These can be treated well with a combination of wood or tin splint and plaster of Paris bandage. Venetian blind laths are very useful for this purpose as they may be easily embedded in plaster of Paris without being bulky or projecting unduly from the side. The

perforated tin as above described is also serviceable in all cases where the longitudinal splint is required. This combination of plaster of Paris and splint is most useful, and maintains a most perfect rest and apposition of the broken fragments.

For instance, in fracture of the femur, the usual perinæal band is constantly wetted, loose, and useless; while the long outside splint and bandage cannot be adapted sufficiently tight to ensure the requisite rest and apposition of the fragments. In the double splints and elastic or weight and pulley extension the upper fragment moves with the child, and with every movement there is a cry of pain. Either at once, or, perhaps more safely, after the primary swelling of soft parts has ceased, a flannel bandage is applied from the ankle with spica round hip joint, and then round abdomen to thorax. On this one layer of plaster of Paris bandage is applied to cover all the flannel. Next an outside thin narrow splint from axilla to ankle; a little wool may be applied over the prominent points of pressure, and while extension is kept up another layer or two of plaster of Paris bandage is applied over all. As soon as dry the case may be varnished, which keeps it from being soiled. The child, thus having its pelvis and thigh fixed, may now be moved about without any pain or displacement of parts, and the result is most satisfactory. The plaster of Paris is apt to rub at the fold of the buttock, but a little care will obviate this.

The same method answers well in fractures of the leg. There is little or no displacement when the fibula escapes, which it usually does from its flexibility and protected position.

In fractures round the elbow joint, which are very common, passive movement should be begun early.

(3) *Curvatures of Spine.*—Chiefly angular but also lateral. Sufficient extension can often be obtained by an attendant lifting the young children up by the arms, and raising the chin and occiput in high curvatures, so that the use of the pulleys is avoided.

The jacket should always clip the anterior iliac spines; if sinuses exist, window holes may be cut in the jacket over them.

Jury masts can be easily and cheaply made by a carpenter according to instructions.

A good broad soft pad sewn to vest, and hanging down from nape of neck, completely counteracts the pressure and pain of the upright bar and curve of jury mast. The usual costly leather straps to raise and sling the head are irksome and painful. The ordinary calico roller bandage may be used instead; one strip goes from one hook of the cross-piece, under the chin to the other hook. Another piece in the same way under the occiput, and these are connected and sewn together by a small transverse piece below the ears. The comfort and simplicity are evident.

(4) *Rickets.*—To prevent further deformity and bending of lower limbs, either plaster of Paris alone or with outside and inside wooden splints, as previously described, and projecting below feet.

(5) *Osteotomies for Genu Valgum.*—Antiseptic dressings, put up at once in salicylic wool and a case of plaster of Paris.

(6) *Excision of Knee.*—A posterior narrow splint of metal, kept in place by a clip of plaster of Paris above and below the joint. The metal clip is curved posteriorly and antiseptic treatment readily applied to incision.

(7) *Diseases of Joints.*—(*a*) In early stages of hip joint, and later after excision, when the wound is consolidated, a spica of plaster of Paris.

(*b*) In fixation of joints for strumous disease, especially knee, and if sinuses exist, holes may be cut over them.

(*c*) To prevent contraction of knee, before or after straightening.

Precautions.—The fear of causing undue pressure often prejudices the surgeon against the use of plaster of Paris, but with ordinary care there is no danger.

A flannel bandage should envelop the parts comfortably; often it is found the flannel is put on too tight and not the plaster of Paris. Of course, if there is obvious pressure, pain, or swelling, the case must be cut down. Often a little judicious clipping or stuffing with wool, or in case of a joint, the application of an ice bag, will render it unnecessary.

The instruments now made make it most easy to cut down plaster of Paris cases.

It is safer, perhaps, for the child to be especially watched during the first twenty-four hours, and to be within reach of relief, and the friends should always be cautioned against pressure symptoms at any time occurring.

Jackets should not be applied to rickety, bronchitic, or phthisical children, or in any case of fear of embarrassed breathing. A laced poroplastic jacket might then take its place. It should also be remembered that some children improve and grow so rapidly on being sent into the country, that the jackets previously applied get too small and must be cut down and fresh ones applied.

Urgent pressure symptoms are extremely rare if ordinary care is taken.

CASE OF INTESTINES ADHERENT BEHIND UTERUS, CAUSING INTENSE PAIN, RELIEVED BY ABDOMINAL SECTION.

By LAWSON TAIT, F.R.C.S.

S. B., aged 32, presented herself at the Birmingham Hospital for women early in November last, complaining of constant pelvic pain dating from her last confinement, and much aggravated by the patient having "strained herself" six weeks before. On examination, the uterus was found to be somewhat fixed with a mass behind it, very tender on pressure, and clearly cystic. But for the fact that she complained of no increase of pain before or during menstruation, I should have diagnosed the case to be one of occluded and distended tube. As it was, I made no diagnosis, but advised abdominal section. This the patient readily agreed to, and I performed it on November 8th. I found a good deal of matter in the pelvis, and a coil of intestine adherent in the cul-de-sac. I undid the adhesions without much difficulty and closed the abdomen. She left the hospital on November 28th, and has been entirely free from pain since. I have just seen her (July 7th), and find that she has had no return of her old symptoms, and is in perfect health.

This case is a very instructive one, for the physical signs were precisely those of pyo- or hydro-salpinx; and if it had happened that the patient had suffered much at menstruation, I certainly should have set it down as a case of one or other of those diseases. Suppose that, under this belief, I had acted as some (who have had no experience) advise, suppose I had tapped from below, I should have done no good; I should probably have made my patient worse; I might even have killed her. On the other hand, following my rule of opening the abdomen, I was able, with very little difficulty, to cure completely a condition which distressed the patient, which put her in constant risk of her life, and for which no other remedy was possible.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.

A CASE OF GENERAL MILIARY TUBERCULOSIS—TUBERCLE OF CHOROID—DEATH.

By HENRY ASHBY M.D., M.R.C.P.
Physician to the Hospital.
(From notes by H. Chester Nance, M.R.C.S., Resident Medical Officer.)

Mary Ellen D., aged 8 years and 10 months, was admitted to hospital on March 31st, 1884, with the following history :—Father strong ; mother died of a tumour (aged 41) ; three other children dead ; no history of phthisis. Patient was well and strong up to a week ago, but her friends have noticed that she has been getting thinner for some time past. A week ago complained of pain in side, cough, and poor appetite ; does not sweat at night, and has no diarrhœa. On admission on the eighth day of illness, it was noted that she was a well-nourished healthy-looking girl ; pulse 120, evening temperature 103·6°, cheeks flushed, and skin moist. At the right apex the percussion note was high-pitched both anterior and posterior, expiratory murmur prolonged, elsewhere and in left lung normal. Examination of other organs gave negative results.

9th day (of illness). Temperature 98°—102·6°, some rhonchus heard at right apex ; appetite poor ; tongue coated.

12th day. Temperature has varied for past three days from 100° to 102° ; tongue dry and brown ; bowels open after syrup of senna ; abdomen retracted ; vomited at 7 a.m.

13th day. Pulse 120, temperature 99°—102° ; is dull and apathetic ; vomited twice in the night ; headache ; tongue furred and dry. Edges of optic discs are distinctly blurred, veins rather full ; situated below and to the outer side of the right disc are two small apparently raised spots of a yellowish colour, not surrounded by pigment, a small artery passes in front of one.

15th day. Temperature 98°—101° ; is quite sensible, but complains of headache and sleeps a good deal in the day-time, though restless at night ; tongue furred, abdomen retracted.

17th day. Pulse 72, slower than a day or two ago. Temperature continues hectic, 98°—102° ; is heavy and drowsy. Three tubercles seen in each eye, they are some distance from discs, are behind the vessels, and apparently raised.

19th day. Very drowsy, but can be roused for milk ; slight convulsion in the evening.

20th day. Deep coma ; Cheyne-Stokes' respiration ; arms rigid, elbows flexed, legs extended and rigid.

21st day. Death.

Post-mortem—Body fairly well nourished, rigor mortis well marked. *Mediastinal glands*: one or two pigmented and cheesy. Surface of lungs covered with fine grey tubercles, also on costal pleura, no lymph. *Lungs* in condition of inspiration, œdematous, gorged with blood, infiltrated everywhere with fine grey tubercle ; in central part of lung some pneumonia. *Liver*: a few miliary tubercles on surface, one here and there on section, some also on inferior surface of diaphragm, no lymph. *Kidneys* contain miliary tubercles. *Spleen*: tubercles on surface and on section ; there is a small wedge of cheesy material on the upper surface. Heart, peritonæum, stomach and intestines, no tubercle. *Brain*: no lymph anywhere, but fine tubercles present on the vessels in the Sylvian fissures and elsewhere ; lateral ventricles distended, no softening, but brain substance everywhere firm and healthy. *Eyes*: some four or five tubercles in each choroid, they are greyish in colour, and stand out prominently. On microscopical examination they show typical giant-cells and several are becoming cheesy in the centre.

Remarks.—This case of acute tuberculosis was an unusually rapid one, the duration being about three weeks, though the acute symptoms were preceded by more or less loss of flesh and cough. The physical signs in the lungs were never very marked, being limited to a high-pitched note at the apices, some rhonchus and prolonged expiratory murmur. The most interesting feature of the case was the presence of miliary tubercles in the choroid. These were first noted on the thirteenth day of the disease (unfortunately this was the first ophthalmological examination), and also a slight amount of papillitis. On this day decided symptoms of meningitis set in and the ophthalmoscopic examination confirmed the diagnosis of acute general tuberculosis. How long the tubercles had existed before being discovered, it is impossible to say, but I am inclined to think that other tubercles seen in the last day or two of life were not present when the examination was made on the thirteenth day. Dr. Mules made a coloured drawing of the fundus during life, which he exhibited at the Ophthalmological Society.

Medical Times and Gazette.

SATURDAY, JULY 19, 1884.

Our Paris correspondent writes :—The 14th of July was expected with a certain degree of apprehension on all sides, owing to the vaticination of impending danger, and the fear of evil consequences from the huge agglomeration of human beings, which is said to be one of the leading causes of cholera. Nothing occurred, however, to justify the misgivings of the public. The day came and went, like many others, and saving some political incidents, left no immediate mark of its passage. The heat was enormous, and that of the following day (the 15th) was even worse, especially in the neighbourhood of Paris. At L'Isle Adam, for instance, the thermometer rose to 38° Centig., or 100° Fahr. in the shade. Cases of diarrhœa, and even of cholera nostras, are said to have appeared ; but there has been hitherto no real case of true Asiatic cholera in Paris. In the meantime, proper precautions have been taken in case of an invasion of the epidemic. It had at first been proposed to create *cholera wards* in all the hospitals of Paris ; but from fear of dissemination this plan has been thrown up, and two special buildings have been set apart for the purpose of receiving patients labouring under that disease.

In the south the epidemic still maintains its ground. The deaths at Marseilles daily amount to seventy on an average, and at Toulon their number has somewhat increased, the last number reported being thirty-six. A large number of doctors, students, nurses, sisters of charity, and officials have paid their tribute to the visitation. The Mayor of Toulon, M. Dutaxta, was

also the subject of a very severe attack ; but according to the latest news received, he is already much better, and will probably escape with his life. The infected region has at length received a ministerial visit, which if it had sooner taken place would have put at once an end to a variety of unpleasant criticisms upon the conduct of the Government, and might have been productive of some good. It must be acknowledged, however, that when once their decision was taken, our Republican ministers acted their part with a good grace, and created at Marseilles a favourable impression. The numerous and contradictory directions given by various authorities to the public have created much confusion. M. Pasteur publicly blames Dr. Koch for having in his printed instructions deprecated the use of water even for the most legitimate purposes. M. Pasteur very properly remarks, that a profusion of water is the only means we possess of keeping our streets clean, and that the disinfection of clothes and other property having belonged to choleraic patients will always remain imperfect if water is excluded. He observes, lastly, that among the precepts laid down by Dr. Koch some are universally adopted and had long been so before he spoke ; while others are founded on mere hypothesis, devoid of proof. Nothing proves hitherto that the germ of cholera when once dried up can never revive ; nothing proves that the diffusion of cholera never takes place through the atmosphere, and on all these points we are too much in the dark to deduce a practical line of conduct from theoretical principles, the validity of which is not hitherto established.

The Government having requested the Academy of Medicine to state its opinion as to the best measures to be adopted, the whole sitting of that learned body was taken up with the discussion of Dr. Brouardel's report, the conclusions of which had already been noted by the Board of Health. These conclusions, which were adopted by the Academy, are substantially the following :— (1) Land quarantines are useless and injurious, and cannot be recommended. (2) Disinfection of travellers and their luggage is equally useless and injurious. (3) Medical attendants should be posted at every railway station, to take charge of all travellers who appear to be affected with cholera, and to convey them to a proper place of isolation and treatment. (4) Individual precautions are the best preservative against cholera, and these ought to be carefully enforced by public authorities and observed by private persons.

At the same meeting the celebrated histologist, Professor Cornil, was elected a member of the Academy in the Section of Morbid Anatomy (*Anatomie pathologique*), by a majority of 64 votes out of 74. Public opinion will fully ratify the choice, which was generally anticipated.

A correspondent writes : You, in common with other medical authorities, seem to be fairly assured that if cholera invades our shores it will gain no sure foothold, and probably will not spread far beyond its port of disembarkation. In expressing this assurance, I will not go so far as to say that medical writers are reckoning without their host, or without their guest, if cholera is to be our guest ; but they are certainly forgetting the vastly increased intricacy of our sanitary arrangements since the last epidemic, and the new and as yet unknowable conditions which this has introduced into the problem. Cholera probably more nearly resembles typhoid in its mode of communication than any other zymotic disease, and the experience of the last decade has shown that while sanitary improvements have markedly diminished the general prevalence of the latter affection, they have allowed of—nay, rather facilitated—its bursting out in widespread epidemics such as were unknown before the era of extensive systems of drainage, and of water and milk supply. The presumption, then, is that cholera, if it ever penetrates beyond the coast-line, *may* do the same.

A single cholera stool, gaining access to the source of a large water or milk supply, might presumably decimate a population reckoned by tens of thousands, while the same stool, finding its way into a stagnant sewer, might exhale its poison into a thousand houses, where there is no efficient means of cutting off the invasion of sewer gas. Again, where a water system is arranged for a constant service, but owing to deficient supply—a very likely contingency in a dry summer—is made intermittent, it has been shown that sewage may easily gain access to the water-mains and be distributed broadcast whenever the water is turned on. These facts have often enough been pointed out in connection with typhoid, but seem to have been ignored in calculating the prospects of cholera in this country. It is worth while calling attention to them in order to forewarn our sanitary authorities, the profession and the public. By working in harmony these can do much to strengthen those weak points by which the security of our sanitary system is to be gauged. By gaining or giving the earliest information of suspicious cases, by isolating them and disinfecting their excreta, by watching over the sources of our water supply, and by thoroughly flushing and disinfecting the sewers, they may hope to reduce the danger to a minimum ; while individuals, by resolving to partake of no water or milk which has not been well-boiled, will probably save themselves and their families from infection, and at the same time conduct a most interesting experiment in cholera prevention.

It would be futile to attempt to foretell the fate of the Medical Bill. It will in all probability be considered in Committee on Monday next, and the Government will honestly endeavour to make progress with it. But it is threatened with dangers from without and from within—liable to be thrust aside by other more pressing business, or to be torn to pieces in the selfish struggles of the corporations. The Government have not acted wisely in the matter ; they have been too squeezable. Forgetting that their original measure had the support of the whole profession, outside the corporation cliques, they were persuaded to listen to authorities who, however eminent for their services to

the profession, must be regarded as on this point fatally biassed. The ministers who have charge of the Bill have made concessions to this and that examining body, only to find that they have excited the opposition of other examining bodies. They ought to have recognized that it was impossible to please all the corporations. If they had shown "a stiff upper lip" and not attempted to please everybody, there might have been some chance of success. But the moment they accepted the Lyon Playfair amendment, in which course they were no doubt actuated by the best of motives, the prospects of the Bill's passing went down to zero.

The deputation from the Senate of the London University which interviewed Lord Carlingford on Tuesday, pointed out with great clearness the fatal objections to the Lyon Playfair proposal. They showed in the first place that it was totally inconsistent with the recommendations of the majority of the Royal Commission, and thus robbed the Bill of one of the chief arguments in its support; secondly, it was contrary to the spirit of the Bill as it came down from the House of Lords; thirdly, if adopted it would aggravate the evils which the Bill was intended to remove; and fourthly, it would place the Senate of their University in this difficulty, that in granting and withholding their own degrees they would be obliged to accept the decision of examiners whom they had not themselves appointed, and whom they could not, in the event of incompetence, dismiss. It is indeed not fair to ask a body which has a reputation like that of the London University, to submit to a system which might practically reduce its degrees to the level of an ordinary pass examination. With half its examiners appointed by an independent body, the Senate could have no guarantee that its degrees would be kept up to that high standard, on which alone, as at present constituted, the success of the University depends. The deputation had a long discussion with Lord Carlingford and Mr. Mundella, and as a result of their arguments it is possible that the Lyon Playfair proposal may be discarded in favour of the plan supported by Professor Huxley and Professor Turner, of Edinburgh, viz., the appointment of assessors and examiners who would visit the various examinations and report on the manner in which they were conducted. Many of the same objections may be urged against this proposal which were advanced by the deputation of the London University against the Lyon Playfair amendment. But the main argument against it is, that the Medical Council may assess and report as much as it likes, but it will find very great difficulty indeed in applying pressure to any corporation which obstinately ignores its representations. The proposal is not one which the medical profession generally will approve.

The foul condition of the river Thames has been the subject of various questions put in the House of Commons, and it was satisfactory to learn a few nights ago from the President of the Local Government Board, that the whole of the sewage collected at Barking and Crossness is now completely deodorised before it is discharged into the river, that this deodorisation will be continued so long as the weather is dry and hot, and that especial attention is being given to the flushing of the sewers. But the fouling of the river is no new complaint, and as the Metropolitan Board of Works have discovered that the sewage can be fully deodorised at the effluent stations, it does not seem too much to insist that that process shall in the future be carried out at all times of the year. There can be no longer any excuse for polluting the river in any avoidable degree even when the weather is neither hot nor dry.

The river above London is in a still worse condition than is that portion of it under the care of the Metropolitan Board of Works; and unhappily there appears to be very little hope that the latest scheme for its purification will be approved. The Lower Thames Valley Joint Sewerage Board again presented a scheme of main sewerage and sewage purification to Parliament this Session, and for a time it seemed probable that their Bill had a good chance of success. But it is now known that, to use Sir Charles Dilke's words, the Select Committee to which the Bill was referred have determined to accept the grave responsibility of reporting altogether against it. The Joint Sewerage Board was appointed so long ago as in the year 1877, for the purpose of dealing with the sewage from nine urban sanitary districts, and ten contributory places; but every scheme that the Joint Board have presented for approval has been condemned. The Select Committee consider that the Board failed because they attempted to deal with the problem submitted to them by the total diversion of the sewage or by its treatment by irrigation at one particular place; while the Committee are of opinion that the several authorities forming the Joint Board could successfully purify the sewage of their respective districts. It is therefore recommended that the combined districts be divided into four or five districts, each of which shall manage its own sewage.

This appears to be perilously like going back to the chaos of discordant authorities that preceded the Joint Board. Meanwhile the nine suburban districts and the ten contributory places in the Lower Thames Valley discharge their sewage into the Thames without any attempt at previous purification; and all the evils and dangers attendant on that proceeding have of late been greatly aggravated by the remarkable lowness of the river, a condition which, according to some authorities, is due in considerable measure to the very large amount of land-water taken by the London Water Companies. We are thus brought face to face with two very large questions of great difficulty and perplexity—the scientific and sanitary sewerage of the Lower Thames Valley, and the Metropolitan Water Supply. The settlement of both questions is of immeasurable importance to the health of the Metropolis, and will ere long compel the attention of even party politicians.

The Prince and Princess of Wales paid their first and presumably their last visit to Miss Mary Wardell's

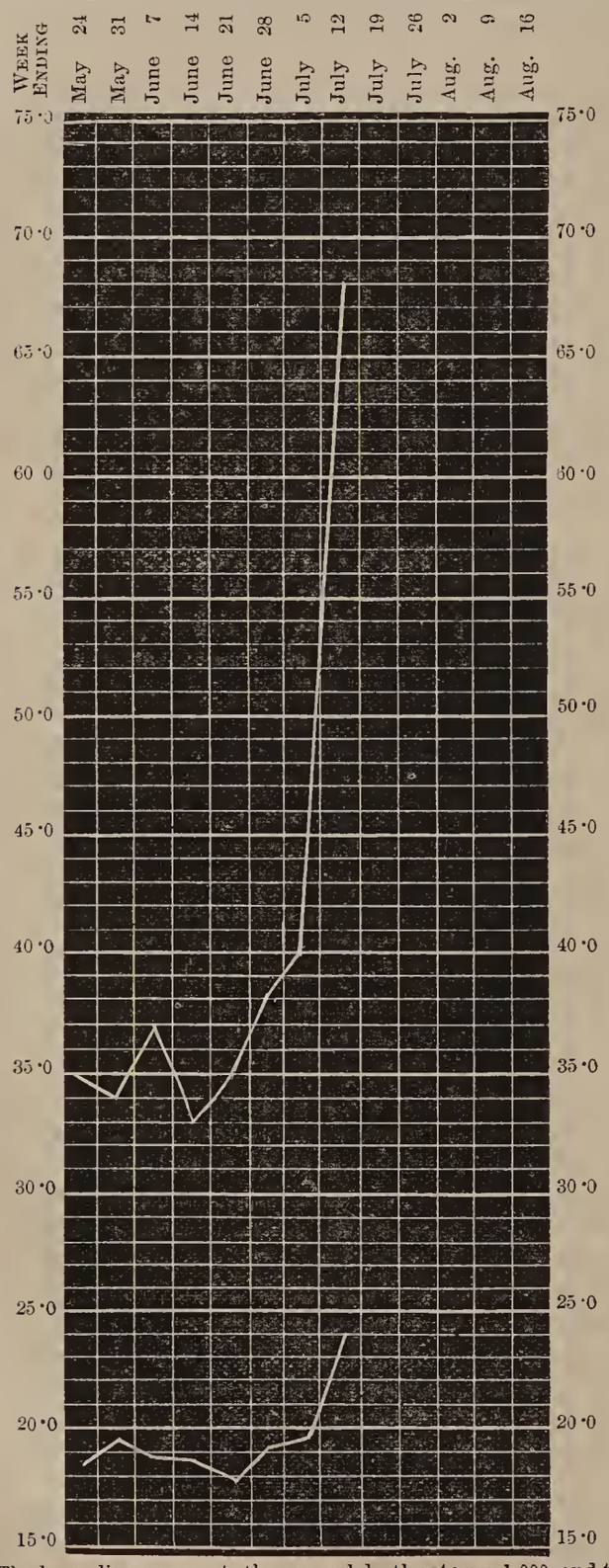
Convalescent Home for scarlet fever patients on Monday last. The ceremony of opening the home, which was conducted with some circumstance, reminds one of the dedication of a nun, or some analogous function—a day of festivity followed by an isolated life of benevolence. From the moment that the first scarlet fever convalescent is received into the Stanmore Home, it will be shunned by the world in spite of its beautiful surroundings, and its commerce with the public will be limited to the necessities of its existence. As to the usefulness of the home, there cannot be a divided opinion. It will save many a scarlet fever patient from the sad sequels of that treacherous complaint, many a seaside lodging from infection, and many a father and mother from an acted lie. In connection with this institution the name of one of our profession, now no longer with us, ought to be for ever remembered, that of Dr. A. P. Stewart. Without Dr. Stewart's assistance it is quite possible that Miss Mary Wardell might not have been able to establish the home. It would have been founded sooner or later, but not under its present favourable auspices.

Dr. Norman Chevers, the President of the Epidemiological Society of London, will open a two days' Conference at the International Health Exhibition on the 22nd instant, at 2.30 p.m., Mr. Shirley Murphy acting as secretary. The President's opening address will deal with "Health in India," after which Dr. Squire will read a paper on the "Change of Type in Epidemic Disease." On the following day, July 23rd, conferences will be held at 11 a.m. and 2.30 p.m. At the former a paper will be contributed by Surgeon-General Pringle, on "Leprosy in India, and the best means of preventing its increase"; and the behaviour of typhus in England during the present century will be discussed. In the afternoon a consideration of the present aspect of cholera in Europe will be opened by Inspector-General of Hospitals, Robert Lawson, M.D. The Society is certainly to be congratulated on the completeness and practical interest of its programme; but the interest, unfortunately, just now is greatly at the expense of the public. No one, probably, would rejoice more thoroughly than the President and Fellows of the Epidemiological Society if their discussion, on cholera, for instance, could have been of a more scholastic nature.

The success of the International Health Exhibition, with the prospect of a large balance at the end of it, is beginning to make the mouths of sanitary schemers water in anticipation of a division of profits. As Sir James Paget said at the banquet at the Mansion House on Saturday, the success of the Exhibition will not be apparent for many years in so far as the question of health is concerned; but it will be apparent in a few months in so far as the question of money is concerned. It will be well, however, to remember the experience of the Fisheries Exhibition, and not to encourage too exorbitant hopes. On one point an expression of opinion may perhaps be allowed. If there is any surplus to be disposed of, it should be devoted rather to preventive than to curative objects. The Parkes Museum, which was in some sense the mother of the present Exhibition, has the first claim, both from its usefulness and its necessities, to a subsidy. The Sanitary Institute might also fairly expect to be remembered. But the most advantageous way of investing a surplus would be to found a central hygienic laboratory, wherein might be conducted, under competent professors, every sort of research bearing upon the prevention of disease. There is simply no end to the number of practical enquiries for which the science of hygiene is waiting before it can lay a claim to even moderate perfection, and every generation probably will see new problems arise. Sir James Paget says, what we want is ambition for health. We, on the other hand, believe that what is wanted is knowledge. Preventive medicine looks on helplessly while the race is fast becoming edentulous, and not only offers no preventive, but does not even think of looking for one; leaving the scientific problem to be worked out, at their own expense, by half-a-dozen enthusiastic dentists. If all that a hygienic laboratory should effect were to be the discovery of a means of successfully forestalling decay of the teeth, the millions who are visiting the Health Exhibition would feel that the profit on their shillings had been applied to a most worthy object.

On Monday last the Lord Mayor presided at a meeting at the Mansion House, summoned in support of the proposal to establish a convalescent hospital and home of rest for the wage-earning classes. It is intended that it should be self-supporting to the extent of one-fourth of the expenditure, but we cannot understand from the reports in the daily papers whether the payments of those who are to enjoy its advantages are to be provident, that is, made week by week or month by month during good health, or only to be exacted during residence in the home. In either case, however, the proposal is worthy of that support from Royalty and the medical profession which it received at Monday's meeting. Sir Risdon Bennett, Sir Andrew Clark, and Sir W. MacCormac all spoke in its favour, and a council was forthwith appointed to carry out the scheme. It is perhaps open to doubt whether it is wise to make a further call on the charitable to support what may be regarded as more or less of a luxury, when hospitals which provide for the actual necessities of the poor are languishing all round for want of funds. But, on the other hand, it may be argued that a well-conducted system of convalescent homes, by clenching the cures wrought in hospital, and by preventing serious illnesses by timely aid, will to some extent lessen the need for hospital accommodation. In any case the council when they have established the home will do well to take adequate precaution that its benefits are kept for those who are in actual physical nced of them, and not sponged upon by those who simply want a cheap holiday. It is far too common nowadays for benevolent governors to send persons to convalescent homes who are in as robust health as life in London admits of. For such the true hygiene, as well as the true charity, is to make their daily lives more healthy.

The prominent fact in the return of the deaths in London last week is the excessive mortality from diarrhœa. At this time of year one expects to find catarrh of the alimentary tract very fatal to weakly children under one year of age, just as catarrh of the respiratory tract is fatal to the same class of the population in the depth of winter. These two diseases are the means whereby nature chiefly protests against the survival of the unfit, and there is less to regret in an extensive mortality from them than there would be in a similar prevalence of typhoid or smallpox, which do



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the past eight weeks.

not make such a wise selection of their victims. Still, a mortality of 336 persons in one week from diarrhœa —262 of them under one year of age—shows a little too much zeal on nature's part, and it is difficult to believe that some at least of these infants might not have been saved by skilful care and nursing, to figure eventually as very capable members of the community. The average mortality from diarrhœa in the corresponding week of the last ten years being 221, the present return shows a death roll half as large again as usual. The temperature, however, in the early days of the week was excessive, and even in the best nurseries it was impossible to keep milk—the staff of infant's life—from turning sour, in spite of the borax and boracic acid which dairymen use so largely when the thermometer rises above 70°.

It is of course the diarrhœa mortality which has sent up the zymotic line in our chart so high, but the mortality from all the other zymotic diseases except measles and scarlet fever was above the average. Altogether, 540 deaths from this class of diseases were registered in London last week, or 127 above the corrected average. Smallpox killed 36 persons, or 24 above the average; whooping cough killed 57, or 6 above the average. The 15 deaths from diphtheria were 4 above the average, while typhoid, the mortality from which has of late been steadily mounting, was fatal to more than twice as many persons as usual in this week of the year. The deaths from respiratory diseases, viz., 206, were less than in the previous week, but exceeded the corrected average by 10. The general death-rate was 24·0 per 1,000, and was exceeded only in Nottingham, Birkenhead, Liverpool, Preston, and Halifax. Diarrhœa was not very fatal in the 27 large provincial towns, the deaths from it not having exceeded 160, whereas if children had died in them at the rate that they did in London, the mortality would have nearly reached 400. It is worth while enquiring why diarrhœa should have been so excessively fatal in London, compared with other large towns in which the sanitary conditions are not a whit more favourable.

It was given to Sir Charles Dilke on Wednesday last to make, in the House of Commons, the most satisfactory statement that has been made by any Minister of the Crown during the present Session of Parliament. The House was in Committee of Supply, and during a conversation on the Vote for the Local Government Board, Sir C. Dilke said that the National Vaccine Establishment has lately been obliged to apply to the Treasury for power to take extra premises, and that the Establishment was daily increasing its operations to such an extent that hereafter it would be necessary to propose a separate Vote for it. To every person of wholly sound mind this evidence of increased activity in the vaccination department must be highly acceptable.

The Second Professional Examination in the University, writes our Edinburgh correspondent, began on Friday last, and was continued during the present week. The division of this examination into two sections, the first including anatomy and physiology,

and the second materia medica and pathology, is finding favour with an increasing number of students, and the arrangement was undoubtedly a step in the right direction. The preparation for this examination when it included all the subjects was a tax on the capacity of candidates which few could endure with comfort; and it moreover conduced to perfunctory preparation in one or other of the subjects in the hope that a good appearance in the others would make up for any deficiency in it. Now more thorough preparation is ensured, and the tendency to "cram" diminished.

The Final Oral Examinations came to a conclusion on Friday last, and the list posted on that day showed a considerable number of rejections. Some of the unfortunates are, however, consoling themselves on the understanding that they are to have a second trial in a day or two. This process of second trial is a relic of the grandmotherly fashion in which this examination in years gone by was conducted. Formerly, none but the blackest of the sheep were remitted for another year's sojourn among the flock; recently, alma mater has been in the habit of returning a considerable number to her nurturing care; but her heart relents at the sorrow of some of the disappointed ones, and she picks out a few of the most deserving and gives them another opportunity of demonstrating their fitness for life outside the fold. It is to be feared in the event of the Medical Bill becoming law, either with or without the Playfair amendment, that the candidates will find the new board of examiners somewhat less complacent than the present; and in any case it is to be hoped that we have seen the last of this somewhat weak and vacillating process of deciding on a candidate's fitness to pass.

We understand that a very large number of candidates, far in excess of the ordinary number, have entered for the Final Double Qualification Examination of the Royal College of Physicians and Surgeons of Edinburgh. This probably includes a considerable number of the *waifs* from the three kingdoms, who, fearing the passing of the new Act, dread the effect of a somewhat more carefully organised board on their somewhat dubious chances of success.

The Directors and Medical Officers of the Royal Infirmary, Glasgow, have under consideration the advisability of appointing assistants to the several medical officers, independently of the resident assistants. This is a move in the proper direction, and apparently has the unanimous concurrence of both lay and medical managers, and it is to be hoped that it will be the means of lessening, if not entirely removing, much of the friction which has from time to time disturbed the workings of the institution. The vacancies which are soon to take place in the staff of both medical and surgical departments are to be keenly contested. For the medical appointment we hear that Drs. J. W. Anderson, Gemmell, Alexander Robertson, and McVail are in the field. Dr. Anderson has been a long time on the dispensary staff, and latterly has been doing duty as Visiting Physician in the wards of Dr. Charteris since the resignation of the latter.

The proposal to amalgamate two of the Dublin Schools of Medicine, to which we alluded a few weeks ago, has fallen through in consequence of an adverse vote at a meeting of the Council of the Royal College of Surgeons in Ireland, on Thursday week, the 10th inst. By a majority of eight to six votes it was decided that it was not advisable to take steps to ascertain the feasibility of an amalgamation between the School of the College, and the Carmichael College of Medicine.

At a meeting of the Senate of the Royal University of Ireland, held on Wednesday, July 9th, a number of additional examiners were appointed to assist in conducting the autumn examinations. Among them, and in the Faculty of Medicine, was Dr. John F. Hodges, appointed an Additional Examiner in Sanitary Science. It was arranged that the Medical Examinations of the University shall be held twice in each year viz., towards the end of April and in the month of October. Candidates failing to pass at either of these examinations will be allowed to present themselves again at the succeeding examination. There will be an honours examination in connection with each of these medical examinations. One First Class Exhibition and one Second Class Exhibition, out of the number already assigned to the several medical examinations respectively, may be awarded at the April examination; while the residue of such exhibitions may be awarded at the October examinations.

The city of Vienna has to deplore the loss of three distinguished physicians in a single week. Professor Edward Jäger v. Jaxtthal, the eminent oculist, the master of all the masters in "opthalmoscopy," as he was called by one of his pupils, is dead, and there cannot be two opinions that the medical faculty has sustained a heavy loss by his death. The reputation of Edward Jäger was not limited to his own city; he was well-known abroad on account of his great scientific merits. His ophthalmoscope, his atlas, and his reading types are known to every oculist; his last scientific work was devoted to the investigation of general diseases and diatheses by means of the ophthalmoscope.

Besides his medical work, he devoted a considerable part of his time to the study of general social problems; and a few years ago he published a *brochure* on the reforms needed in the scheme of instruction in vogue at the Austrian universities. He was famous not only for his extensive knowledge, but also for his skill as an operator, and many of his pupils, as Professor Mauthner, of Vienna, Professor Hermann Cohn, of Breslau, and Professor Schnabel, of Innsbruck, have achieved a reputation in science which has shown them to be worthy of their master. Edward Jäger was born in 1818, at Vienna, and was the son of Frederick Jäger, a famous oculist of his time. In 1854 he received the rank of Privat-Docent of Ophthalmology in the medical faculty of Vienna; in 1857 he was named Extraordinary Professor of the same faculty, and a year later he became "Primarius" of a ward for diseases of the eye, which had been recently established in the Vienna General Hospital. When, a year ago, Professor Arlt had to resign his chair in obedience to the law which demands the

retirement of every teacher who has reached the age of seventy years, the "ordinary professorship" naturally fell to Edward Jäger. The Professoren-Collegium had thus an opportunity of repairing a blunder which had been committed long before, Jäger having been passed over when it was his turn to be elected "ordinary professor." The Professoren-Collegium knew very well that they would soon be compelled to proceed to another election, for Jäger was already aged 66, and weak in health. They did, however, what they could, profiting by the opportunity of bestowing on their colleague an honour which, however, he was destined to enjoy only for a short time. He died on the 5th July, in his summer residence at Penzing, near Vienna, having reached the age of 67.

The "Father" of the Vienna Hospital, and its oldest Privat-Docent, Dr. Kolisko, died on the 7th July, at the age of 73. He was famous in the diagnosis of diseases of the chest, and in 1857 the ward for these affections, which had before been under the direction of Skoda, was entrusted to him. Hofrath Dr. v. Vivenot, one of the most amiable and good-hearted physicians of Vienna, died on the 30th June, in his country home at Lilienfeld, aged 77. He was the founder of the society for the support of the widows and orphans of physicians who did not belong to the "Widows' Society of the Doctoren-Collegium." He also founded the Society of Physicians of the First District, of which he was for many years President, as well as Archduchess Sophia Hospital. On account of his numerous benevolent actions he was the recipient of many Austrian and foreign orders. In him Vienna has lost a noble benefactor.

At meetings of the "Professoren-Collegium" of the medical faculty of Vienna, held on the 21st and 28th June, the officers for the year 1884–5 were appointed. Dr. Vogl, Professor of Pharmacology, was elected dean of the faculty, and Dr. Gustavus Braun, Professor of Gynæcology, sub-dean, Dr. Adolphus Lorenz (Emeritus assistant to Professor Albert in the clinic of surgery), Dr. Wittelshöfer, and Dr. v. Pfungen (assistant to Professor Meynert in the clinic of mental diseases) were named Privat-Docents. Many candidates for extraordinary professorships were proposed by the different professors of the medical faculty. If all these candidates should be admitted by the committee which is appointed to enquire into their respective merits, and if this admission should be confirmed by the ministry of education, the medical faculty of Vienna will be almost too well supplied with extraordinary professors. Professor Billroth recommended his assistant, Dr. Wölfler, Professor Albert supported Dr. Hofmokl, Professor v. Dittel proposed Dr. Englisch and Dr. Utzmann. Professor Ludwig favoured the claims of Dr. Manthner, and Professor Leidesdorf brought forward Dr. Urbantschitsch.

Professor Billroth addresses, through the *Centralblatt für Chirurgie* for June 28, "a scientific and humanitarian request to his colleagues," in relation to neuroma of the stump after amputation, being induced thereto by the terrible sufferings of two cases he has under treatment. He has desired his assistants to work out the subject in order to ascertain what are the causes of the production of the affection, and especially as to the duration of the effects of operation or the other modes of treatment employed; and he will be greatly obliged by any of his colleagues furnishing him with the results of their experience on these two points. The recorded cases give little that is satisfactory. The extensive excisions of the neuroma which he has performed in these cases have, in Professor Billroth's hands, been followed by no good result, or this has only been temporary, which may have been due to the affected nerves having already become too far diseased. As it happens, he has never had the opportunity of observing painful neuroma after any of his own amputations, and he asks whether they are met with also in the union by primary intention in the modern antiseptic treatment of wounds? The employment of electro-puncture, successful in Lücke's hands, failed in a case in which he used it, and more information is required concerning its application.

Mr. Victor Horsley has demonstrated the fact that both nerve-endings and fibres exist in the sheaths of nerves. The existence of sensory nerves supplying the endoneurium of nerve trunks has been previously surmised, and it has also been demonstrated that sensations in nerve trunks may be localised. This is frequently the case in neuralgia, and the new facts observed by Mr. Horsley render explicable the beneficial results of nerve-stretching in this disorder. There appear to exist both Pacinian bodies and tactile corpuscles, the former lying in the epineurium, and the latter on the perineurium covering the primitive bundles. The fibre supplying the end bulb is always single, "running in a distinct sheath of connective tissue furnished by the endoneurium" and taking origin "either from anastomosing branches of primitive bundles, or from the bundles themselves as single or double fibres following the arrangement of the connective tissue bundles of the epineurium." Mr. Horsley surmised that "by stimulation of such nerve endings, in addition to those found in muscle and around joints, information was gained of the position of the limbs and so-called muscular sense." The discovery of these nerve terminations within nerves is of the highest importance, and throws a new light upon many obscure points in neurology. The communication was made at the recent meeting of the Physiological Society, and at the Royal Medical and Chirurgical Society.

It is well known to many that the late Claude Bernard and his wife did not live on the best of terms; in fact some years before his death they separated, the main reason being that she was a most determined anti-vivisectionist. Since Madame Bernard has been a widow, she has been under the influence of somewhat mystic ideas, one of which is, that if she can save the lives of as many dogs and cats as were immolated by her husband, their souls may yet meet in Paradise. Impelled by this hope, she repaired to the highways and by-ways, collecting all the stray dogs

and cats she met with until she accumulated some forty or fifty of each in her house at Colombes. As she lived in a street adjoining neighbours, this naturally soon gave rise to protests, and at last she was fined five francs for having disregarded a decree of the mayor for the abatement of the nuisance. Appealing against this she declared by her advocate, that she did not wish to annoy her neighbours by these dogs, which she considered it to be a sacred duty to collect, and that she was willing to move elsewhere ; but at the same time she did not wish to be out of pocket by doing so at once, as she had paid her rent in advance. She therefore wished to avail herself of a flaw in the mayor's decree, in which he had inaccurately termed her house an "infirmary" for dogs and cats. If this decree were quashed before another with a proper designation could be put into force, the time for which she had paid her rent would have expired and she would take herself off. The obdurate tribunal, however, would listen to no such argument, and dismissed her appeal.

In his presidential address at the twenty-fifth Annual Meeting of the American Medical Association, Dr. Austin Flint spoke at some length very forcibly on the relative positions of orthodox practitioners and, in the euphemistic language of the Code of the Association, those "whose practice is based on an exclusive dogma to the rejection of the accumulated experience of the profession and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry." Dr. Austin Flint groups together as irregular practitioners all who assume distinctive names, such as homœopathists, eclectics, botanics, &c., on the ground that this indicates to the general public a special claim for consideration as being distinct from, and opposed to, the general body of practitioners, thanking heaven, in a way, that they are not as other men are. Aware that this classification will include many who have taken medical degrees, he exhorts them to renounce the "sectarian designation" and the hostility to the profession thereby involved. These steps and conformity to the rules of medical ethics are, he considers, *alone* necessary to throw open the portals of the regular profession to these erring brothers. *Alone* forsooth! May we not almost hear them crying out with Shylock's bitter cry—

> "Nay, take my life and all . . . . .
> You take my house when you do take the prop
> That doth sustain my house ; you take my life
> When you do take the means whereby I live."

Deprived of their name, and of their proud isolation they would truly be in a parlous state in most cases.

At the adjourned meeting of the Royal College of Physicians, held on Thursday last, reports were received and adopted from the Council, and from the Medical Bill Committee. The President reported that he had expressed to the President of the Local Government Board the readine s of the College to afford every assistance in their power to meet any outbreak of cholera, and to prevent the spread of the epidemic. Sir Charles Dilke had replied that the College could do good service by issuing a paper of instructions to the public, such as they prepared on a former occasion when an outbreak of disease was apprehended. A large Committee of the Fellows, including Physicians of each of the large Metropolitan Hospitals, with some other Fellows who have had large practical knowledge of the disease, as Sir Joseph Fayrer and Sir Guyer Hunter, was appointed to draw up a paper of instructions ; and to give advice and assistance to the Local Government Board in any other way that may seem useful.

PATHOGENIC MICRO-ORGANISMS.

The great difference of opinion that prevails among skilled observers as to minute organisms known as bacteria, and the varied results obtained from their experiments by means of cultivation and inoculation in connection with disease, should teach an important lesson, as we have more than once had occasion to insist, to impetuous practical men who, with insufficient personal knowledge of the subject, are too ready to popularize other men's work. The issue of the questions raised by this study is possibly of the gravest practical importance ; and it is nothing less than lamentable to contemplate in the writings of medical men the over-ready assumption of inadequately demonstrated facts, and the host of illogical inferences and applications which appear to them to result therefrom. In a previous leading article we glanced at the lack of evidence there was for the dogmatic teaching that, because it is most probable that the bacillus tuberculosis of Koch is the essential cause of tuberculosis in animals, therefore phthisis in men is solely due to the same organism ; and the further inference that phthisis is contagious, is clearly, as Dr. Andrew has lately insisted, not only "not proven" but even in a great degree unlikely. Once more, at this time, when the subject of cholera is engaging the minds of the profession and the public, we see the most doubtful and hotly debated points as to the genesis of the disease taken widely for granted by the uninitiated in science, both within and without the ranks of medicine ; and we cannot but hope that some recent utterances of such a well known worker in pathology as Dr. Klein, will have great influence in causing many to pause and consider before they attempt to teach the public what they may probably have to unlearn themselves. In an article in *Nature*, for July 10th, the substance of which is reproduced in another column, we have clearly set before us, presumably by Dr. Klein, what is really ascertained with respect to the organism lately detected by Dr. Koch in the discharges of cholera patients. The writer points out that though Koch has failed to find the comma-shaped bacillus which occurs in cholera in any other malady, and notably in diarrhœa, a very similar or identical organism was observed by himself in the dejecta of patients who suffered from an epidemic of diarrhœa in Cornwall, in 1883. But further, even if this bacillus were peculiar to cholera, it is so far not proved to be *pathogenic*, but only pathognomonic ; for animals are apparently insusceptible, and inoculation experiments have had no result. The theory of Koch that this comma-shaped bacillus, found only in the intestinal contents, is the cause of cholera, is bound up, says Dr. Klein, with the assumption that the cholera poisons enter the system by the alimentary canal alone. This objection, of course, has weight only in proportion to the belief that

the respiratory system also is an avenue of approach for the contagium. In that case it would be reasonable to expect to find the bacillus in the blood and tissues. But though Dr. Klein apparently goes beyond what is proved when he states that the cholera poison is certainly inhaled as well as swallowed, he doubtless makes a point against those who implicitly acknowledge the "comma" bacillus as the cause of cholera before any direct evidence by inoculation is forthcoming, when he shows that their primary assumption is at least open to question.

In his lately published report to the Local Government Board on the "Relation of Septic to Pathogenic Organisms," Dr. Klein gives us ample material for reflection on this subject generally. The practical outcome of this paper is to throw doubt on M. Pasteur's statement that a culture of *bacillus anthracis* that has become inactive on sheep always yields further cultures which, although full of the typical anthrax bacilli, are nevertheless no longer pathogenic. By a series of experiments Dr. Klein claims to have proved that there is no evidence whatever that a harmless micro-organism can be changed into a harmful one, or *vice versâ*; and he believes that pathogenic bacteria are virulent *ab initio*. The experiments which have led him to this conclusion are given in detail; and are well worthy the perusal of all who would form clear ideas on this subject. The fact of the cultivated bacillus affecting different species of animals in various ways Dr. Klein attributes to varying conditions of growth. High temperatures, or a different soil, or other conditions, may cause the bacilli, although remaining themselves the same, as can be experimentally shown, "to embody or appropriate, chemically or otherwise, some new or different substance, which produces the alteration for a particular species of animals." If Dr. Klein's experiments are to be regarded as having satisfactorily contradicted those of M. Pasteur with respect to the attenuation of the anthrax virus, their practical influence, even though it be exerted in a negative direction, cannot fail to be very great. For it is on his results with the anthrax poison that M. Pasteur has built his hopes, and those of so many others, for the day of protective inoculation against many of the infectious diseases of mankind. Dr. Klein completely denies Buchner's statement that the hay-bacillus can be transformed by various cultivations into the anthrax bacillus, and that the latter may be made to assume the harmless properties of the former; supporting his denial by detailed experiments, and showing apparently good reason, from his own experience, for believing that in some of Buchner's observations the culture of hay-bacillus must have been accidentally contaminated by anthrax-spores.

One more important observation is made by Dr. Klein touching the methods of cultivation of bacilli, which, as much as anything else in his valuable and suggestive paper, serves to point the moral with which this article began. He argues that the culture of bacilli on solid material, rich in gelatine, does not exclude the possibility, or even in some cases the *probability* of some poisonous material being retained, arising from the original source, and apart from the organisms themselves. In some instances he gives ample evidence that this is probably the case. It would seem from these considerations that there is good reason for medical men to hesitate at present in the formulation of their creeds and doctrines in the matter of the ætiology of infectious diseases; for when men like Klein, and Pasteur, and Buchner, and many others are at variance at the outset of the enquiry, it is puerile for most practical physicians to try conclusions with one another.

THE *ROIS FAINÉANTS* OF THE MEDICAL SCHOOLS.

To an observant eye, the old episode of the *rois fainéants* seems likely to be re-encountered in the case of our medical schools, where the time-honoured Lecturer, as lord paramount of education, is beginning to be edged to the wall by his active and accommodating subordinate, the Demonstrator. The prominence of the latter in the schools is of modern date. Not so long since, he was hardly heard of, except in connection with the anatomical department; now no school is complete without its staff of highly trained "practical" teachers in at least half a dozen of the earlier subjects, and the academic Oliver already asks for more. The growing importance of the Demonstrator, and the interest which students for the most part feel in laboratory work, are among the most hopeful features of medical education. True science is an acquaintance with things, not with statements, and the development of laboratory courses may be not unfairly taken as a measure of the extent to which the scientific spirit has invaded primary professional study. The doubling, however, of the recognised course in so many of the subjects involves some very serious considerations, not only on account of the additional expense entailed on the schools, but more particularly on account of the inroad it makes on the already overtaxed time of the student. The years allotted to the curriculum are few, the subjects crowded into it are many; there is a formidable list of lectures to be attended in the earlier years; and it is not surprising if the unfortunate student, between lectures, demonstrations, dissections, journeys to and fro, and intervals of waiting, is heard to complain that next to nothing of the day is left him for reading and private preparation, or for practical work in the hospital wards. The need of an extensive re-arrangement of the conditions of medical study, if men are to be turned out reasonably efficient practitioners after four or five years' tuition, is becoming gradually recognised, and we trust that at no distant date the whole subject will meet with the thorough consideration and bold reform which it both deserves and demands.

The ostensible basis of medical education, as at present constituted, is the traditional method of teaching by formal courses of lectures, and to the maintenance of this ostensible basis nearly one half of the present regulations of study are directed. In any satisfactory enquiry the entire lecture system, as it stands, will have to be placed on its trial, and its case proved very completely before it is allowed to absorb in the future as much of the student's time as it does in the present. We ourselves entertain little doubt

that it will be found, on investigation, open to very material modification, for it is becoming more and more obvious in the schools that many of the required courses, as now carried out, fill no actual place in the pupil's scheme of study, and represent no real element in his instruction. The lecture-system is to outward appearance so firmly rooted, its maintenance has been so uniformly insisted upon by the licensing bodies, that it may appear slightly presumptuous to question its entire and unqualified excellence. To describe a scheme of education so imposingly organised, so elaborately guarded, as little better than an empty show would seem the most audacious of paradoxes. Yet it is probable that no inconsiderable number of those most conversant with the working of the London medical schools would be ready to go far in support of the apparent paradox. We entertain a strong suspicion that, even by earnest students, attendance on one-half the courses of lectures given is regarded as a mere form to be gone through for the sake of a certificate, with little hope of any further benefit; and that, but for the compulsory regulations, lectures would as often as not be delivered to empty benches. Probably not a few lecturers themselves are conscious that they occupy a false position, and form part of a system which is at best a respectable anachronism, a simulacrum of teaching, a decorous shell from which the living tissue has well-nigh disappeared.

In days when books were scarce and dear, the lecturer was necessarily the centre of education, the one possible agent of general instruction. Outside his class-room were no sources of information; no manuals were to be had but the note-books that his pupils assiduously filled. Attendance on lectures was synonymous with attention to study; to be absent from the class was to be an idler. Nowadays the position of oral teaching has become materially modified. For three centuries the lecturer has fought a hard battle with the powers of machinery. The printing press has enabled a few great teachers to speak to the world at large without restriction of time, number, or space. The text-book has been arrayed against the lecturer, and has ousted him from many points of the line. Exceptional men alone can uphold the ancient position unimpaired. In the hands of a Huxley the lecture may still be made an unrivalled means of primary scientific instruction. But Huxleys are not be had for the asking, and certainly cannot be regarded as the rule in the staffs of London hospitals. The knack of tuition is not an universal gift, and in its higher degrees is possessed by few. The selection of lecturers, in the London schools at any rate, is and must be very much a matter of chance, or to speak accurately, is conditioned by other than educational considerations. The London lectureships are, in fact, mostly filled by members of the hospital staffs, who have reached their position by dint of attainments that do not necessarily involve either exceptional proficiency in the subjects they are detailed to teach, or even a pronounced capacity for teaching at all. Here and there a born lecturer appears in the class-rooms, but the general average of the systematic oral teaching is far from high. In the metropolitan schools, which are practically private enterprises, this can hardly be avoided; but it must be frankly borne in mind in discussing the subject. That a school taught by Huxleys and Humphrys would be an ideal engine of instruction, everyone would be disposed to admit; but the practical question is this—does the kind of lecture-teaching which the schools can actually be relied on to provide possess such undeniable advantages over mere text-book learning as to justify us in maintaining a general requirement that without it no student shall be considered to have been properly taught, or be allowed to present himself for examination? Unless an unmistakable affirmative can be given to this question, the present regulations must be adjudged an hindrance, and not a help to education. An affirmative answer, we confess, we should ourselves greatly hesitate to give. A good lecturer is doubtless a priceless possession; to be anything less than good, *non concessere columnæ*.

The exclusion of oral instruction from the modern schools is by no means our aim. Far from it. In any system of scientific teaching worth the name, the oral instructor must hold a place, and an essential one; but that place is not precisely the one that he was called upon to fill in a bookless age. One half of the old-fashioned oral teacher's work is now done, and fairly well done, ready to his hand by some one or other of the numerous manuals open to his choice. The modern teacher is required to work with, rather than to supplant, the printed text. He is not needed to dictate the note-book, which may be had ready made for a few shillings, but to explain and illustrate it, to test the knowledge derived from it, and above all, to ensure that it becomes a knowledge of facts, and not a mere familiarity with phrases. In a word, the teacher's essential place is at the laboratory table by the student's side, not in the rostrum over his head. A demonstrator he *must* be. A lecturer he *may* be with advantage if possessed of the special capacities needed for the work; but the work is not indispensable, and had better by far be left alone than done ill. By the existing regulations the schools are taxed to provide a luxury, while many of the necessaries of scientific instruction are left to chance. For the time and the work of both students and teachers there is ample and pressing need. The scanty clinical knowledge which the average student carries away from his school, is matter of daily remark; the deficiency of clinical instruction, and the want of time to profit by it, is becoming an equally common student's complaint in not a few of the schools. There is plenty of scope for the talents and energies of the most brilliant hospital staff in teaching the higher branches of professional knowledge in the wards and out-patient rooms, without becoming enforced schoolmasters in the primary subjects. It might well raise a smile, were not the cause so serious, to see, as is daily seen in the London hospitals, an accomplished physician or surgeon hurrying from the wards, where his smallest word is caught by eager ears, to spend an hour in reading a chapter of elementary anatomy or materia medica to a first year's audience, one half of which makes little attempt to conceal its weariness and inattention.

We have ventured to broach a very important subject, one upon which much difference of opinion may

be anticipated, and one which ought not to be taken up except in a cautious and deliberate spirit. It is, nevertheless, at a time like the present, when so much that concerns medical education is being consigned to the melting-pot, that the process of recasting may, if ever, be expected to be carried out. We trust that the new licensing boards, of whatever elements they may be formed, will regard it as one of their primary duties to make a searching enquiry into the whole question of the requirements of professional study; and that their regulations will not be enacted without a full and practical investigation into the working of the medical schools as they exist, and into the needs and difficulties of the modern student. For our own part we should not be sorry to see the schools altogether reorganised upon a tutorial rather than a professorial basis, as being more in consonance with the needs of the time. At the head of each we should like to see an official more nearly analogous to a college tutor than the present deans, provided with assistants if necessary, to conduct frequent examinations and keep a personal watch on every pupil attending the school. Under his direction should work a staff of practical teachers in anatomy, physiology, chemistry, morbid anatomy, operative and "minor" surgery, pharmacy, and toxicology. The total disappearance of botany and materia medica may be taken as a matter of course. Upon these "practical" courses, for the reasons stated above, we hold that personal attendance should be strictly enforced. If the resources of the school admit of really good lectures in any or all of these subjects, so much the better; but they cannot be deemed essential, and may safely be left an entirely optional matter. In the higher subjects—the various branches of medicine and surgery, in therapeutics, and jurisprudence, systematic courses will probably be always appreciated by the advanced student, and provided by the schools; but the first care of the hospital staff should be the provision of adequate and well organised clinical instruction, both in the wards and in the out-patient rooms, coupled with frequent short lectures, as informal and practical as possible, and given, if that may be, in immediate connection with the bedside teaching. Nor should any student be allowed to present himself for examination who has not given far fuller proof of his attention to this all-important portion of his professional education than, we fear, is at present exacted either by the licensing bodies or by the school authorities. Some such reform as we have sketched we are convinced will ere long be found desirable, and the historically interesting office of lecturer must not be allowed to stand in its way. The years allotted for study are too few to admit of any portion being given to merely ornamental teaching; the most practical methods, the greatest economy of time are imperatively required. The lecturer as absolute sovereign has had his day. The demonstrator and practical teacher are the men of the hour. They are even now absorbing into their duties all that is essential of the former's work. The throne remains to the lecturer, buttressed as it is by compulsory regulations, but the sceptre is departing from him. Childeric, if wise, will yield the place to Pepin while he can still do so with grace.

INFESTED FOOD.

The recent unfounded mackerel scare is fresh within the recollection of our readers. According to the original report mackerel and beer were placarded as *arcades ambo*. We confess to regarding the "free consumption" of the latter in hot weather as being the agent responsible for mischief, when mischief ensues from their joint ingestion, and believe that the fish is only an accessory after the act, standing thus in the same category as the salmon, which sometimes serves as the nominal and convenient scape-goat for the post-prandial discomforts of the wealthier classes. It is, of course undesirable that any cheap and nutritious form of food should be laid under an unmerited ban; and it is monstrous that our poorer neighbours should be scared from the enjoyment of what is both wholesome and palatable by the bogus menace of a too successful practical joke. It must, nevertheless, be admitted that we are only on the threshold of a complete knowledge of this subject, for the true comprehension of which more thorough investigation is still needed. If the interest to which the public has lately been roused in the matter leads to fuller research and exacter conclusions, we must be grateful even for evidence which appears at first sight but to disclose new perils and to establish the reality of risks hitherto only speculative. The more light we have, the better can the road be seen; and whether it serves to give him timely warning and recognition of real dangers, or causes the phantom shapes to vanish in the clear dawn of fuller knowledge, the traveller cannot be otherwise than thankful for its aid.

All the animals commonly employed as food by man serve, in some cases habitually, sometimes only exceptionally, as the "hosts" of parasitic organisms. Broadly dividing the latter into two great groups—those habitually occupying some part of the interior of the intestinal canal, and those which burrow into or amongst the general tissues of their host—it is obvious that the latter are by far the more dread-inspiring. Without respect for time or place, and by the nature of their habitat secure from the action of all ordinary remedies, some of them can penetrate to organs of the greatest delicacy and of the most vital importance. Fish are known to be commonly infested by these pests, and some of them at least appear to be transferable to man, presumably through the use of fish as food. Thus, in 1869, Professor Lockwood, in America, discovered the *Koleops anguilla*, a minute entozoon, which he had found embedded in the adipose tissue on the entrails of the common eel. Four years later Professor Welch, of Netley, published a description of an identical, or very similar, parasite, which he had obtained from the dissection of a soldier returned from India, and expressed his opinion that this group of worms would prove common in fishes. The latest addition to the list of known tissue-boring pests is derived from the common pigeon. It is the larval form of a burrowing mite, the *Pterolichus falciger* of Meguin, the *Hypoderas columba* of Murray. It is about 1·5 m.m. in length, and is said to occur "most abundantly in the connective tissue about the large veins near the heart; but a few may be found under the

skin in the region of the arm-pit." At a recent meeting of the New Jersey State Microscopical Society, Professor Lockwood exhibited some specimens taken from a male pigeon which had been kept for a day in fifty per cent. alcohol. The larvæ had been kept for five or six days in seventy-five per cent. alcohol before they were examined. Each specimen presented a crater-like depression with a slightly puckered edge; from the bottom of this crater, a petiolate body bearing a flattened knob, in the centre of which appeared a distinct oval pore, was observed to rise, and this little organ continued to retract and project itself "with a slow but perfectly rhythmical motion," until, the alcohol evaporating, its movements ceased.

It must not be forgotten that, with very rare exceptions, these parasitic organisms must find their way into the bodies of their human hosts only in company with food or drink, and that the several processes of mastication and of gastro-intestinal digestion, as these can and should be performed by healthy people—not to mention that of cooking, which in most cases precedes the others—are a very efficient means of securing the destruction of the vast majority of such unwelcome intruders. It is true that such an instance as that just cited, in which an entozoon in its early larval stage survived several days' immersion in alcohol considerably above proof, seems to afford evidence not only of depraved tastes, but, what is of more importance, of the possession of a remarkably persistent vitality. We do not know, however, what would have been the result of subjecting it to the fiery ordeal of the digestive action of a healthy human stomach. Herein possibly lies a hint for hopeful investigation and enlightenment. Let the rival inventors of the various pepsins and other digestive ferments now so freely advertised take steps for publicly demonstrating the efficiency of their various preparations upon selected specimens of such parasitic organisms as have not yet been definitely classed in respect of their power of wreaking mischief upon possible human hosts. If the parasite prove to be one certain of succumbing to the peptic forces of his unwilling entertainer, the public will only have learned another lesson in the advantages of the pursuit of health, and will know that their greatest safeguard against the evils which they have lately come to dread is to so order life that good digestion may always wait on appetite. On the other hand, should the entozoon emerge from the test unscathed, it will be entitled to increased respect, and its inferior hosts will be deservedly regarded with something stronger and better founded than mere suspicion; always assuming, of course, that the digestive ferments employed in these investigations possess the peptic virtues claimed for them.

London School of Medicine for Women.—The Dean of Westminster, presided on the 10th instant at the annual distribution of prizes at this school. Mrs. Garrett Anderson stated in her report that there were now forty women on the Medical Register, and Mr. Stansfeld, M.P., the treasurer, said that the expenses of the year had been less by 300*l.* than in the previous year. The students' fees, however, covered only two thirds of the expenditure. The chairman delivered a brief address, after which the prizes were distributed.

REVIEWS AND NOTICES OF BOOKS.

ENGLISH SURGERY.[1]

[Second and Concluding Article.]

In a former notice we made a few general remarks on the editorial arrangement of this System, and briefly reviewed some of the articles contained in the first volume. We shall now conclude our task by noticing, as concisely as possible, some of the more important articles contained in the second and third volumes. As in the first volume, we find that many of the articles are merely reprints of those contained in the two former editions, and as such they cannot claim to be considered as either complete or so modern as might have been wished in such a representative work as the present. In the article on Diseases and Injuries of the Eye, very little change has been made, although it has had the advantage of being "edited" by Mr. Hulke, a most able and distinguished ophthalmologist, and although immense progress has been made in this department, since Mr. Dixon first laid down the lines of the original article. We are sorry to see perpetuated in this present article one piece of advice which we confess we have hitherto regarded with indulgence as probably an oversight in the last edition. In the section on Syphilitic Iritis in Infants, when speaking of treatment, the Editor says, "I would remark on the absolute necessity for their being suckled and not brought up by hand. The milk of a healthy wet-nurse would, of course, be preferable to that of an infected mother; but in the lower classes of society, among whom this disease is exclusively met with, the services of a wet-nurse can hardly be obtained." We sincerely hope that no practitioner of medicine of the present day would deliberately put a syphilitic infant to a healthy wet-nurse, in whatever station of life it happened to be born. The nurse would run a great risk of infection, and the doctor who advised such a procedure would probably be visited with heavy penalties in any lawsuit which might arise under the circumstances. Our own experience leads us to think that the mother is the best nurse in these cases, and that the infant will thrive notwithstanding. The mother certainly will take no harm, and this is more than can be said for a healthy wet-nurse. "Mercury should be given at once; and as hydr. c. cretâ is very uncertain in its chemical composition, I always make use of calomel. . . ." On this point also we must join issue, believing as we do that grey powder, when prepared by a careful and competent chemist, may be relied on as a most safe and efficacious preparation, and one which can be continued for a far longer time than calomel. In any case, mercurial inunction is more useful and more easily applied than either, and "in the lower classes of society" this is a matter of great consequence. The section on Tumours of the Choroid and Retina might well have been enlarged, and the minute pathology more carefully treated. A few words, too, on tubercle in the choroid, and some general remarks on optic neuritis as a diagnostic sign in various conditions of the brain, with and without injury, would have added much to the value of the article, and would have been quite as much in keeping with the surgical nature of the System as, say, chlorotic retinitis. One word concerning the

[1] A System of Surgery: Theoretical and Practical. Edited by T. Holmes, M.A, Cantab., and J. W. Hulke, F.R.S. Third Edition, in 3 Vols. London: Longmans, 1883.

drawings. They look as if they were re-impressions of the plates used in the last edition, and cannot now be considered as typical of the diseases they pretend to represent. Whatever may have been thought of them when originally drawn, ophthalmoscopy and disc portraiture have made such strides since then, that they can hardly now be regarded as satisfactory.

Mr. Dalby has re-written the chapter on Injuries and Diseases of the Ear. It is short and concise, yet full of practical detail and suggestion. The advantage of this plan (of re-writing) over that more generally adopted throughout the work of interpolating notes in brackets or otherwise, is abundantly manifest, and the reader is never at a loss to know to whom to attribute the statements he meets with in reading for information. The chapter on Diseases of Muscles is edited by Mr. Barker. He follows in the lines of his predecessor so exactly as to include in this chapter infantile paralysis, and pseudo-hypertrophic paralysis, though these conditions are now known to depend on nerve lesions. The pathological nature of the former lesion especially has been elucidated since the second edition of the System was issued. On the other hand, a primary disease of muscle, sterno-mastoid tumour, is not even referred to. Dr. Brown Séquard, who in former editions wrote on Diseases and Injuries of Nerves, in association with Dr. Lockhart Clarke, has now sole charge of these interesting affections. His essay is divided into three parts: (1) The immediate effects of nerve lesions; (2) The remoter consequences; (3) Suture and stretching of nerves; the last-named section being, of course, quite new. Throughout, there is an elaborate study of authorities, besides an immense amount of personal experience brought to bear on the subject matter; from the English standpoint, however, some of the views expressed are rather heterodox. In many places the author palpably betrays his foreign nationality, while his style throughout lacks much of the lucidity and elegance of diction which, with the notable exception of Professor Max Müller, can only be expected from one accustomed to write and speak English as a mother tongue.

The article entitled Orthopædic Surgery only deals with the subject very partially, and the reader has to refer to several other essays to supplement the information contained therein. Dr. Little's article is chiefly on club-foot, and analogous muscular or tendinous contractions, with a short account of genu valgum, and its mechanical treatment by instruments (the question of osteotomy is discussed elsewhere.) The author's views on the causation of club-foot are quite unaltered. He appears to regard the congenital and the non-congenital (the acquired) form as practically identical, and as the latter is so obviously the result of impaired nerve function, either local or central, he concludes that the former must necessarily have a similar origin, and that "primordial malformation" and "pressure of the walls of the uterus" upon the affected limb are quite untenable as causes of the deformity. It is impossible to enter here into a discussion on this subject, but if the deformity always depended on a lesion of "certain ganglionic cells in the medulla spinalis," it is obvious that the author's statement that "the completeness of recovery in the great majority of cases of congenital varus constitutes one of the triumphs of surgical art," would hardly be true. Nothing is said about the result of treatment of the acquired forms: of those especially which follow an injury to a nerve, or those—the adaptive forms—of talipes, which frequently follow infantile paralysis. In this class of cases, the contrast is most marked—the cold, withered limb, which appears steadily to shorten as the patient grows, the constant tendency to relapse after years of unremitting care the moment this care is relaxed, are so many points of difference which appear to us conclusive proofs that the congenital form of talipes—in the vast majority of instances—differs radically from the acquired form.

The article on Diseases of Joints, which has had the advantage of being re-written by Mr. Barker, is systematic in its arrangement, while comprehensive and ample in detail. To the question, whether it is possible to diagnose between the femoral and synovial forms of hip disease, he answers in the affirmative as regards the earlier stages. This question of determining the precise seat of the disease is one of great importance; we confess that hitherto it has baffled us, and the more we see of the disease the more we doubt the possibility, *especially in the early stages*, of saying in any given case whether the disease has commenced in the bone, or in the soft structures connected with the joint. In a few cases of very acute onset, it is true, a reasonable guess can be made; but in the majority of cases, coming on insidiously, and often with a very imperfect history, we are fain to admit that there is little to differentiate one form from another. Mr. Barker is also responsible for Diseases of the Spine. This essay, too, has been carefully revised, and in some points remodelled, and constitutes a very excellent account of a very troublesome disease. Speaking of Sayre's plaster jacket, the author says, "This corset is unsuitable for infants and very young children." In this, though staunch advocates of the jacket, we quite concur. Fortunately spine disease is exceedingly rare, in our experience, at this tender age.

Mr. Haward's article on Diphtheria and Croup is a very fair though brief statement of the relations of these diseases (if not identical) to each other. He acknowledges the value and the use he has made of the Report of the Royal Medical and Chirurgical Society, which attracted so much attention a few years ago, and his own views on the pathological questions involved are very nearly identical with those expressed in that report. While taking, as we are disposed to do, a broad view of the term "surgery," we are nevertheless somewhat surprised to find such a chapter as this in the System, in the arrangement of which such a "rigorous economy of space" has had to be so strongly enforced. On the other hand, we observe, with disappointment, that the surgical aspect of diphtheria is hardly touched on. It can scarcely be maintained that the indications for tracheotomy are laid down as one would expect to find them in a work which professes to take high rank as an exposition of the theory and practice of English surgery. Again, the question of after-treatment is not even alluded to, although by common consent the success of the operation depends entirely on its being carefully and appropriately carried out. When such an important subject as this is passed over in silence in our leading work on surgery, we can hardly be surprised if statistics continue to justify Mr. Haward's remark, "that the fatal termination is not averted to any great extent by this operation."

Mr. Birkett's essay on Hernia is one of the most practical and valuable in the volume, and is evidently the work of an author who is master of his subject. A similar criticism applies to Mr. Holmes' essay on Diseases of Arteries, with which the third volume begins. The whole subject of arterial disease, including, of course, aneurysm, is here considered in an exhaustive and authoritative manner. In no other language is there such an able dissertation on this subject. Sir Henry Thompson's articles on Lithotomy and Lithotrity, are what one would expect from such an experienced operator. The short essay on Calculus in the Female, however, is not of equal merit; it is theoretical rather than clinical, and lacks the personal character which distinguishes the other papers by the same author. Mr. H. Lee's article on Venereal Diseases is decidedly below par, being a very poor exposition of the subject

as it at present stands. The chromo-lithographs, if not actually misleading, require a considerable exercise of the imagination to see in them the typical conditions which they are supposed to represent. Among the articles in the appendix, we find the Surgical Diseases of Childhood, by Mr. Holmes, which has not by any means been brought up to time; it includes sections by Mr. Brodhurst, and Dr. Little. The chapter on Surgical Diagnosis and Regional Surgery, by Mr. Godlee, is an able summary of the application of anatomical facts to practical surgery, which we need hardly remark is characterised by the accuracy that distinguishes all Mr. Godlee's essays. We may conclude by saying that the volumes throughout are embellished with woodcuts, and that there is a copious and well arranged index, which makes reference to any of the subjects both easy and complete. The printing is clear, and very few clerical errors have been passed over. Messrs. Longman deserve credit for the manner in which the work has been issued.

ABSTRACTS AND EXTRACTS.

THE CHOLERA GERM.

A WRITER in *Nature* for July 10th, whose initials, "E. K.," give a very sufficient clue to his identity, subjects Dr. Koch's discovery to a more searching criticism than it has yet met with.

All we can say, he writes, is that Koch has shown that in cholera evacuations there exist, besides micrococci and straight bacilli, other organisms also characterised by this —that they are curved or comma-shaped. Whatever else has been said by Koch, his followers, and critics, scientific and daily papers, as to these "comma-shaped" bacilli being the cause of cholera, is simply and purely a supposition, which, as we shall presently show, is wanting in the most essential elements. First and foremost, Koch has been unable to find anything of this "comma-shaped" bacillus in the blood or tissues in any stage of cholera. Now all experience on cholera teaches that, whatever its cause may be, the alimentary canal is not the only passage through which the cholera-poison enters the system, but that its entrance through the respiratory organs is also an established fact. For this reason it is necessary to assume that, as in other infectious diseases, it passes in the stage of incubation of the disease through the blood and system. The symptoms of cholera, the whole nature of the disease, shows that it is not a local distemper of the alimentary canal, but that the latter is merely a symptom of the malady as much as in typhoid fever the distemper of the ileum and spleen, or in scarlatina that of the skin, throat, and kidney. Had Koch found the "comma-shaped" bacillus in the blood or the tissues, *e.g.* the blood-vessels of the alimentary canal, mesenteric glands and spleen, the nature of this "comma-shaped" bacillus would have been as obscure as ever, but still there would have been some sure element in the chain of surmises. Of course it might be argued, and as a matter of fact it is argued by Koch in the reports to his Government, that the bacillus, having found entrance into the cavity of the intestines, there multiplies, and produces some ferment, which, absorbed into the system, sets up the whole chain of appearances constituting the symptoms of cholera. This is quite possible, and to a certain limited extent is borne out by experience, notably in the case of putrid or pyæmic poisoning, where, owing to the presence of putrefaction in a wound, the products of putrefaction—the sepsin—absorbed in sufficient quantities into the system, create the above disease, often terminating fatally. In this case no specific organisms are detected in the blood or tissues; their presence is limited to the wound only, and their effect is merely this, that some ferment—ptomaine or some other substance—produced by them is absorbed into the system. That this should also be the case in cholera is, as we just said, possible, but it is not probable, for the simple reason that the cholera virus in a large percentage of cases enters the system by the respiratory organs, and therefore it must be assumed in these instances to pass into the general circulation, and consequently, if it is to be identified, must be identified in the blood or tissues. The practical consequences of an assumption that the cholera-virus passes into the system exclusively by the alimentary canal, and that it has its breeding-ground in the latter only, are so great, that before acting on such an assumption the basis for it ought to be established, which it certainly is not.

Secondly, is it a well-established fact that this "comma-shaped" bacillus is present only in cholera evacuations? If it should be found that this bacillus is absent from the alimentary canal in all other diseases, then we could at best recognize it as pathognomonic, but it by no means follows that it is also pathogenetic. I have lately had the opportunity of inspecting this "comma-shaped" bacillus in specimens prepared by Koch, from the rice-water evacuations, and also in artificial cultures, and I have fully convinced myself of its reality. But I possess prepared specimens of evacuations of patients suffering from severe diarrhœa (in an epidemic outbreak of diarrhœa in adults in Cornwall, in the autumn of 1883, and investigated by Dr. Ballard, Inspector to the Local Government Board), in which specimens, besides micrococci and straight bacilli, there are undoubtedly present bacteria which, in shape and size and mode of staining, so closely resemble the "comma-shaped" bacilli of cholera that I am unable to discover a difference between them. I have, however, not made any artificial cultivation of them, and therefore cannot say whether there exist any differences between the two, notably as regards their mode of growth.

Here is one other point to which we wish to draw attention: as Cohn (*Beiträge zur Biologie der Pflanzen*, Heft ii.) has shown, and as is now generally accepted, a rod bacterium which is characterised by being curved is regarded not as a bacillus but as a vibrio: and it is not quite clear why, unless for the sake of novelty, Koch, generally accepting Cohn's terminology, should in the case of the cholera bacterium have deviated from it, and should not rather have spoken of it as a vibrio, because a vibrio, and particularly a *Vibrio rugula* (sp. Cohn), is the organism which he describes as a "comma-shaped" bacillus.

SURGERY.

TREATMENT OF HÆMORRHOIDS.—Prof. Verneuil observed in a clinical lecture at La Pitié (*Gazette des Hôpitaux*, May 8), that just as once he had observed that while the classic works on surgery took many pages on the treatment of ingrowing nail, this really could be told in six lines or less, so the treatment of hæmorrhoids, upon which so much has been written for so long a time, may be summed up in two methods, viz., cold enemata and gentle laxatives in mild cases, and forced dilatation in the severer cases. Still upon no disease has there been more written than upon the importance, the prognosis, and the treatment of hæmorrhoids. The earliest writers protested against any surgical intervention whatever, regarding these tumours as a benefit and their suppression as a danger. And even at the commencement of this century, the advocates of abstention maintained that they acted as a kind of emunctory, attributing to them a function analogous to menstruation, the arrest of which might have its inconveniences. Others with more reason asserted that their removal was attended with danger, and it is true that some of the procedures employed, when the surgical arsenal was less complete than at present, might be dangerous. At that time incision was resorted to as a palliative when the hæmorrhoids appeared externally; and Prof. Verneuil, when Lisfranc's interne, practised this operation which sometimes was followed by fatal pyæmia, and at all events remedied nothing. Excision was next resorted to which was just as dangerous by reason of the formidable hæmorrhage it gave rise to, necessitating the very objectionable practice of plugging the rectum, persons dying either from the bleeding or the plugging. Ligature, which succeeded to excision, had also its dangers, for it sometimes proved fatal, giving rise

to extremely violent pain, the formation of gangrenous *débris*, sometimes followed by phlebitis and pyæmia. Later the actual cautery was resorted to, and more than one of M. Verneuil's colleagues still employ it; but, although the procedure was efficacious and not dangerous, the suffering which it entailed, prior to the discovery of chloroform, was too horrible to allow of it being persisted in. An important improvement was produced by the ecraseur, but this, although it gave rise to some excellent results, had the serious inconvenience of being succeeded by a circular cicatricial ring, which in the end gave rise to stricture of the anus, although in a less degree than after the actual cautery. To obviate this, the hæmorrhoidal protrusion was divided into two, three, or four segments, or caustic points (made of Vienna caustic or chloride of zinc, &c.), were inserted. Prof. Verneuil also obtained good results without much pain, from punctuated interstitial cauterisation by means of the galvano-cautery, and still better ones from the thermo-cautery, plunged into the protrusion at various depths; but from an early period he employed Chassaignac's ecraseur both for operations on the tongue and for hæmorrhoids; and at this time he discovered the true pathogeny of hæmorrhoids by injecting them in the dead body with suet and Prussian blue. But it was not till twenty years afterwards that he made any use of his discovery. In the meantime, Recamier had devised the treatment of fissure of the anus by dilatation; and Maisonneuve adopting this practice extended it to hæmorrhoids when very painful, and in this way cured both these and the fissure of the anus which so frequently complicates them. Prof. Verneuil and Dr. Fontan, of Lyons, both resolved, unknown to each other, to put Maisonneuve's practice into force, even when the hæmorrhoids were unattended with fissure. This recalled to the mind of the former his researches on the pathogeny of hæmorrhoids. According to these, hæmorrhoids are caused by a strangulation of the superior mesenteric veins which traverse the wall of the rectum, within a muscular ring, and then expand over the mucous membrane of the gut. This strangulation gives rise to the formation of a more or less voluminous trunk, just as the ring of the soleus muscle, by a strangulation of the veins, causes varices of the leg. Thus, it suffices to cause a cessation of this muscular contraction to relieve the strangulation, and to allow of the hæmorrhoid emptying itself and the circulation being re-established in its normal condition. The violence employed in forced dilatation causes the cessation of the contraction and the radical cure of the hæmorrhoids. In order that the dilatation may succeed, it is not sufficient to practise it merely by the fingers, which act only on the lower fibres of the rectum. It must be practised (the patient being placed under chloroform), first with Ricord's speculum and then with that of Lisfranc, which permits a sufficient dilatation. It should be made slowly and progressively for about half-a-minute. The result is marvellous, a radical cure being obtained without any danger in a week. Dilatation is the operation *par excellence*. If the hæmorrhoids are sphacelated, the dilatation must be delayed until all complications have disappeared.

Ligature of the Common Iliac.—In an article in its number for April 5th, the *Philadelphia Medical News* gives a summary of the results of this operation in 79 recorded cases, not including cases by Beugnot, Dummreicher, Lamprière, and Medoro, the original references to which were not attainable by the compiler. Grouping these cases into four classes, it is found that the vessel has been tied under the following conditions: — (1) For hæmorrhage, whether primary or consecutive to the ligature of other trunks, or during the performance of other operations: 28 cases with 24 deaths (35·71 per cent.) and 4 recoveries. (2) For the cure of aneurysm: 43 cases with 28 deaths (65·11 per cent.) and 15 recoveries. (3) For pulsating tumours simulating aneurysms: 5 cases with 4 deaths (86 per cent.) and 1 recovery. (4) As a preliminary step to prevent hæmorrhage during the removal of a tumour or amputation at the hip-joint: 3 cases, all proving fatal. "With such a gloomy record before us (a mortality of 74·68 per cent.), we cannot endorse the view of Packard, that it would probably be sound surgery to resort to preliminary ligature of the common iliac to prevent hæmorrhage at the hip; nor can we agree with Kümmell, who holds that the procedure is preferable to ligature of the external iliac, for aneurysm of that vessel seated high up, and of the femoral artery, because it is far less liable to be followed by gangrene of the lower limbs, than the latter operation."

Nocturnal Incontinence of Urine.—Mr. J. F. Anderson, writing in the *Australian Medical Journal* for March, calls attention to a plan of treatment which he says he has found very successful, and which consists in setting in motion an electrical current whenever the smallest quantity of uriue is passed during sleep, inducing contraction of the perinæal muscles, stopping the flow, and awaking the patient, so that he can empty the bladder voluntarily. "Placed at the head of the bed I have a battery, attached to the poles of which are two long insulated wires, that pass underneath the pillow and down the patient's back, terminating in two small exposed copper loops, placed at a little distance apart on the perinæum. One of these wires before reaching the perinæum is brought round to the pubes, and then passes down inside a small indiarubber bag, shaped like the upper part of an ordinary male urinal, but closed at the bottom. At the lowest part of the bag this wire is filed clean through, leaving the two metallic ends exposed, and about an eighth of an inch apart. Into this bag the penis is put. Now set the battery in motion, and let the patient go to sleep. As long as the bag is empty no current passes, but let the smallest drop of urine be voided, it immediately passes to the bottom of the pouch, fills the interspace between the filed ends of the wire, and so completes the circuit—the current passing through the body from one copper loop to the other. Immediately the perinæal muscles contract, and the patient is awakened. After a little he comes to associate passing of urine while asleep with getting an electric shock, wakes up, and so a cure is produced. Of course there are straps, buckles, &c. required to keep everything in place."

Dislocation of the Tendon of the Long Head of the Biceps.—In an elaborate and interesting article published recently in the *American Journal of the Medical Sciences*, Dr. White, Surgeon to the Philadelphia Hospital, enters into a critical review of all the supposed cases of this accident which have been hitherto published, and arrives at the following conclusion:—"A careful study of the foregoing evidence has convinced me of the impropriety of basing upon it either a dogmatic assertion or denial of the existence of this lesion. The Scotch verdict of 'not proven' represents the opinion at which I have arrived, and which may be more formally expressed as follows:—Although for more than a hundred years cases of the supposed luxation have been reported or alluded to by surgical writers, yet they have been so poorly observed or so carelessly described, that they fail altogether to carry conviction." He follows up this retrospect by the relation of a case which has occurred in his own practice, and which, by the carefulness of the observations that were made, and the minute analysis of its symptoms, carries a conviction that the diagnosis was correct. Still, the narrator is not too dogmatic in the assertion that it is a true example of this dislocation. At all events, it is a most instructive description.

Gonorrhœa.—Dr. Constantin Paul recently stated at the Paris Therapeutical Society, that in the treatment of gonorrhœa he now employs injections of corrosive sublimate, as recommended by Dr. Fauti (three solutions being used, containing respectively 1·40, 0·60 centigrammes, and 0·12 grammes of sublimate to 100 grammes of water), and the results obtained are very remarkable. He observed that the isolation, culture, and even inoculation of the microbe of gonorrhœa, to which the name of *gonococcus* has been given, would seem to have demonstrated the specific character of the micro-organism; and experiments have shown that a solution of sublimate in the proportion of 1 part to 20,000 effects its certain destruction. A trial of injection of this microbe "accepted by a woman," made by M. Paul, did not give conclusive results, inasmuch as the acute urethritis, which was produced after five days' inocu-

lation, disappeared in 48 hours He is continuing his researches, and in the meantime recommends his colleagues to investigate the efficacy of the 1 to 20,000 parts solution in various stages of gonorrhœa.—*Gazette Hebdomadaire*, May 2nd.

Treatment of Buboes by Aspiration.—In a note to the *Indian Medical Gazette* for June, Mr. Weston, of the Meerut Hospital, states that he has seen two cases of bubo successfully treated by the late Surgeon-Major Hogg, by means of the pneumatic aspirator. "The men," he says, "went out of the hospital much sooner than they would have done had the buboes been laid open. In one case the operation had to be repeated once. A pad and bandage were used after the pus had been drawn off. In our military hospitals, where the ordinary plan of laying open the bubo is practised, one often sees the resulting sore take on an unhealthy action, and, as a consequence, the men are kept in hospital for several months. It would be well, therefore, to give the aspiration treatment a thorough trial."

Iron *versus* Silver Sutures.—Dr. John Roberts, writing in the *Polyclinic*, Feb. 15th, says "what I call the 'suture folly' is the adherence of so many to the theory that silver wire only should be employed for suturing purposes. Nothing could be more fallacious. Do we use silver hare-lip or acu-pressure pins? Why then employ silver when iron wire is stronger and far cheaper? When large and gaping wounds require the sutures to stand much tension, silver wire must be very thick. Iron wire of much smaller diameter, and therefore much more flexible, gives an equally strong suture, and in addition to being better adapted to the purpose, is much cheaper. I recollect that, in hospital practice, nearly eight years ago, I discarded silver wire, which cost one dollar for each small coil, and bought, at a hardware store, enough iron wire, for 10 or 15 cents, to last many months. The nicest iron wire which I have seen, and which I now use for the purpose, because it is strong, very flexible, and free from elasticity, can be bought for 10 cents a spool. If it become a little rusty, it can be rubbed clean in a moment."—*Louisville Medical News*, May 31.

Modern Treatment of Hydrocele.—An able article in the *Philadelphia Medical News* for May 3rd, in which a review is given of the various modes of treating hydrocele which have been adopted of late years, and proof adduced that antiseptic incision, so frequently resorted to in Germany, is by no means the safe and radical cure which it has been asserted to be, is terminated by the following general statement:—"An analysis of the facts contained in the preceding paragraphs warrants the conclusion that antiseptic incision of the sac is too severe for ordinary cases, and that it should be reserved for those in which the vaginal tunic is much thickened, and for examples of recurrence after the employment of simpler methods. Although the injection of from 30 to 60 grains of liquified carbolic acid, as a curative measure, has not been as yet sufficiently tested, we think that we are justified in predicting that it will prove to be the simplest, safest, and least inconvenient of all the measures heretofore employed for the cure of the very common affection under consideration."

An Hereditary Malformation.—In the June number of the *Glasgow Medical Journal*, Dr. J. S. Muir records a remarkable instance of a family predisposition to deformity. Mr. M. says that his great-grandfather and grandfather both had some deformity of the feet or hands, as his father had told him so, but he does not know the exact nature of it. His father had a supernumerary digit on the left hand, and on his right foot he had six separate and complete toes. His uncle had six fingers on the left hand, and six complete and separate toes on the right foot. This man (the uncle) had five daughters and three sons; they all had six fingers on each hand, and six toes on each foot, one had webbed fingers. Mr. M. himself has an additional little finger on the left hand, and an additional little toe on the right foot. His brother has six fingers on each hand, and six toes on one foot and seven on the other. Mr. M's sister has no deformity. Mr. M. has had eight children, of these three girls and one boy were not deformed. One boy (the second child) had six toes on each foot. The sixth child, a girl, had an additional little finger on the left hand, the fifth metacarpal seemed to bifurcate near its proximal end, its shorter limb supporting the additional finger. Her right hand had a small abortive little finger. Her right foot had six complete and separate toes, her left foot was normal. The seventh child, a boy, had on his right foot an additional small toe united to the other, but with separate phalanges. The left foot had six separate toes and a well marked talipes varus. The left hand had an additional finger articulating with the fifth metacarpal bone. The right hand had an abortive little finger extra, and a webbed condition of the ring and little finger. The eighth child, a girl, had six fingers on each hand, both feet had double great toes, in the left foot the individual phalanges were quite separate, in the right the individual phalanges were inseparably united at their lateral borders, and there was one nail notched down the centre and not two separate nails as in the other foot.

Operation for Varicocele.—Relating two cases of varicocele which occurred at his Clinic at the Roosevelt Hospital, New York, Dr. Sands (*New York Medical Journal*, March 29th,) describes the following operation, which he has performed in many cases, as both simple in execution, and very satisfactory in its results. "It aims to obstruct the distended veins by a ligature of catgut applied subcutaneously. It is made to surround the veins by first transfixing the scrotum with a needle, and carrying the thread between the vas deferens and the veins: the needle having been passed through the scrotum, carrying the thread with it, is then passed in the opposite direction, from behind forward, entering and emerging through the same cutaneous punctures, but, instead of passing between the vas deferens and the veins in returning from behind forward, it is made to pass on the opposite side of the veins, so that when the ligature is tightened the veins are firmly constricted. The ligature and dressing being antiseptic, no suppuration follows. It is necessary to be sure not to include the vas deferens, as its functions may be destroyed. The operation itself is not very painful, but severe pain, which must be allayed by opium, usually follows it. I am not accustomed to administer ether before the operation."

REPORTS OF SOCIETIES.

ACADEMY OF MEDICINE IN IRELAND.

Medical Section.

Friday Evening, May 16th, 1884.

Dr. Henry Kennedy in the Chair.

Double Optic Neuritis with Paralysis of both Olfactory Nerves and Sensory Division of Right Fifth Nerve.

Mr. John B. Story exhibited a patient suffering from atrophy of both optic nerves and paralysis of the olfactory nerves, and of the sensory division of the right fifth nerve. The patient was an unmarried woman, aged 32, who had enjoyed good health till the winter of 1882–3, when she began to suffer from a violent pain in her head. The pain later on became so violent as to confine her to bed, where she remained for some months in the spring and summer of last year. She became after some time completely unconscious, and when her consciousness returned (about July, 1883), she found her senses of sight and smell totally lost, and sensation absent from the right side of her face, and the little finger and ulna side of the ring finger of her right hand. She noticed a defect in the sense of taste at the same time in the anterior portion of the tongue at the right side. The examination of the patient completely established the truth of her statements, with the exception of the paralysis in the skin of the fingers, which did not appear to have any real existence, at least then. Corneal and conjunctional sensibility was completely absent, and the palpebral and lacrimal reflexes connected with it,

while the cornea itself was perfectly healthy, and the tension of the right globe rather above that of the other eye. He considered the case to be one of cerebral tumour, but could not assign any definite locality to the supposed new growth. The atrophy of the nerves was undoubtedly produced by optic neuritis. He commented on the various theories explanatory of the connection between papillitis and brain disease, and upon the current views as to the production of neuro-paralytic keratitis. The secretion of saliva from the right parotid gland was, so far as careful testing with vinegar could ascertain, completely abolished, that from the left gland being perfectly normal.

The CHAIRMAN would connect the symptoms with a tumour at the base of the brain, implicating particular nerves or parts. There seemed to be less vomiting in this case than usual. He asked, had iodide of potassium been tried.

Dr. C. J. NIXON considered that if Mr. Story was perfectly satisfied there was a lesion of both nerves of smell, and at the same time a lesion affecting some of the fingers of the hand and the forearm, it would be perfectly possible to account for all the phenomena that existed on the idea of an isolated tumour. One of the most difficult senses to ascertain the absence of was that of the sense of smell. It was remarkable to find that with the implication of the sensory division of the fifth nerve there was complete loss of the sense of taste in the corresponding anterior portion of the tongue. This was directly in opposition to a case recorded by Althaus, in which he excluded the fifth nerve as administering to the sense of taste on the antero-lateral region of the tongue.

Mr. STORY, in reply, said the non-persistence of pain not infrequently characterised the growth of tumours of the brain, and the cessation of vomiting too had been not infrequently noticed. He had tried iodide of potassium for some weeks without alteration in the symptoms. In answer to Dr. Nixon, he pointed out that they were all familiar with the fact that loss of sense of smell followed paralysis of the sensory portion of the fifth. In this case a probe might be put up the right nostril without the slightest effect; but if the left were touched in the same way, she shrank with pain. Assafœtida, valerian, oil of cloves, or ammonia had no effect on the right side, whereas on the left she exhibited the movement consequent on inhaling strong smelling salts.

Reflex Paralysis.

Dr. C. J. NIXON read a paper on reflex paralysis, in which he summarised the different views which had been held in favour of, and against the theory of, this form of paralysis. He first examined the class of cases of paralysis which are usually cited as caused by reflex influence, also amaurosis from affections of the fifth nerve, and paralysis of the orbital nerves from a like cause. Having shown that those cases may be explained without reflex mechanism, he next examined the evidence as to the existence or non-existence of reflex paraplegia. Examining the views of Brown-Sequard, Gull, Leyden and others, and the experimental observations on the subject, he directed attention to the absence of any true conception of the mode in which paralysis by reflex action is brought about, except we understand it to be produced by inhibitory influence; so that reflex paralysis, if it have any meaning, must be inhibitory paralysis. This name had at least the advantage of suggesting the way in which the phenomena of the case were produced. Dr. Nixon thought, however, that there was no necessity to admit the existence of an inhibitory paralysis, as taking for instance the cases recorded, reflex paraplegia; they could arise in three different ways—as an ascending neuritis which sets up myelitis, from extension of inflammation along the veins to the spinal cord, or from a lumbo-sacral neuritis which descends along the sciatic nerves.

Dr. MCSWINEY called attention to the so-named reflex paralysis following wounds, of which Dr. Mitchell had given many examples, including paralysis affecting the upper extremities, right or left, where a wound had been received in the lower extremities, right or left.

Dr. BENNETT considered Dr. Nixon's paper open to the objection characterised by lawyers as pleading double. In his hospital experience Dr. Nixon had never seen a case of reflex paralysis, while he quoted instances of inhibitory nerve influence which he held to be another name for reflex paraplegia. It was difficult, therefore, to follow his argument.

Dr. WALTER G. SMITH, looking at Dr. Nixon's conclusions as a whole, said his views must in a great extent be felt to be in accord with those of modern teaching, supported by the pathology of nervous diseases; so that very few, if any, physicians or surgeons would now accept Brown-Sequard's teaching in his interesting lectures on paralysis of the lower extremities. To some, the doctrine of reflex paralysis was a convenient one, as it explained away so many obscure causes. But he reminded Dr. Nixon of the danger of the logical fallacy of taking the part for the whole. Dr. Nixon, as an iconoclast, had proceeded to demolish the theory of reflex origin. It might be true that he had done so in part, but it might not be true he had demolished the whole, especially considering their enormous ignorance of nervous physiology. Caution must therefore be observed in dogmatising too strictly as to what could or could not happen in the domain of the nervous system. Dr. Nixon did not allow sufficiently for the extremely important effects of local sensory irritations, which include both the skin and internal skin or mucous membrane; in other words, stimulation of a limited area of the sensory nerves. The curious thing was that no matter what part of the skin was stimulated similar effects followed. It was known that deaths occurred during early stage of inhalation of anæsthetics. Again, tickle the inside of the thighs and in a bright light the pupils would be seen to dilate. It was difficult to say what channel that influence travelled up, yet it was the influence of reflex action. Indeed, the number of channels by which the vomiting centre might be approached was notorious. Modern teaching had undoubtedly narrowed the field of reflex diseases, and while they should be thankful to those enquirers who had cleared away so much obscurity, it was too soon to urge anything positive as to the phenomena being a reflex arrest of function without speculating that the mechanism by which it was produced might not arise in the body.

The CHAIRMAN called Dr. Nixon's attention to a clinical aspect of the question. He had himself put on record a host of cases of children, from five to seven months old, who had suddenly lost power of one arm, and in these the scarification of a gum or an active purge produced a cure at once. Thus the reflex paralysis was in those cases due to irritation of the mouth or the accumulations in the intestines.

Dr. NIXON replied that he had used the term "inhibition" first as a step in getting rid of the theory of Brown-Sequard that the paralysis was due to reflex spasm of the blood vessels of the spinal cord. If not to that, it was due to something else, or to a number of things, and he took inhibition as one to which it might be due; and he had said there was no necessity for introducing this explanation of the theory of disease at all, inasmuch as it had been established that the paraplegia assumed to be reflex was due to causes which had been ascertained as an ascending neuritis, or a descending neuritis, or a neuritis established by the travelling up of inflammation along the veins. The received explanation of the results of the operations he had cited was that they were due to what was understood as the phenomenon of inhibition. If they were not satisfied that the cases of paraplegia recorded had most distinct and positive pathological lesions to explain them, then the theory of paralysis by inhibition was the one that would satisfy the scientific requirement best. But in the absence of necessity, there was no use introducing a new term into medical pathology. With regard to Dr. Walter Smith's observations as to the effect of stimulation, Brown-Sequard had mentioned that peripheral stimulus might act in three different ways, and it might influence secretion, or the condition of the blood vessels, or the muscles. In his papers before the Section he had confined his observations to the condition of the muscles that might be said to be influenced by peripheral irritation. He did not discuss the condition of the blood vessels, such as would be brought about from irritation of an extensive surface of the skin following a blister, &c. Dr. Smith seemed to have dealt with spasms

as paralysis. There was not the slightest doubt that peripheral irritations of various kinds, worms in the intestines, and teething, produced convulsive phenomena; but it was quite a different thing with irritation transmitted to the cord. Irritation was supposed to pass to the motor area, and yet the usual result was not attained. Although he had seen a great many cases of paralysis, he had never seen one that he could connect with any of those cases of local irritation such as teething, or that got well on suddenly lancing the gum, and he did not see why paralysis should be cured by such a simple procedure. The object of his paper was to show that such a thing was a physiological impossibility, and he did not believe they had records of paralysis produced by peripheral irritations such as worms in the intestines or teething.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, JULY 9th, 1884.

Inspector-General LAWSON in the Chair.

Small-pox and Vaccination.

DR. CORY, referring to the "The report of the Sub-Committee appointed to investigate the conditions affecting the protection against small-pox afforded by vaccination," which will be published at length in the Transactions of the Society, stated that the general conclusions at which they had arrived were that the protection, commencing with the first insertion of the lymph, increased day by day up to the ninth day, after which it gradually declined during a course of years. They believed that at the time and immediately afterwards the protection afforded by a single insertion differed little, if at all, from that conferred by several, but that the subject of vaccination lapsed, if he might be allowed the expression ,sooner from this state of salvation in proportion to the smallness of the result of the operation; in other words, that a child vaccinated in one place was for the moment as safe as one done in several, but that the protection afforded was of much shorter duration; and since the poor with whom the public vaccinator had to deal were from prejudice or apathy unlikely to present themselves for re-vaccination, it was of the highest importance that what would in most cases be their only vaccination should be as thorough and efficient as possible in order that the duration of the protection might be prolonged. Referring to a number of experiments demonstrating the progressive character of this protection, he observed that if one insertion were made on each consecutive day during the week, the result of each was more and more modified, that each ran a shorter course than the preceding, all reaching their full development together, but that on and after the ninth day no result whatever could be obtained. He had vaccinated some infants on superfluous fingers, which were amputated on the fourth day after the operation, and found that when these infants were then vaccinated in the usual place, the result was the same, the second vaccination reaching its height on the fourth day *i.e.*, the eighth from the performance of the operation on the amputated member, showing the constitutional effect then produced. On the question of insusceptibility, he stated that he had never met with such a condition among the 15,000 children whom he had vaccinated.

Mr. R. D. SWEETING then read some notes on the incidence of small-pox in each of the first three quinquennia of life, and on the influence of good and imperfect vaccination as shown by the returns of the hospitals for smallpox under the Metropolitan Asylums Board, for the years 1879, 1880, and 1881. In these three years there were 2,209 admissions of children under fifteen years of age, who had been more or less efficiently vaccinated. The numbers reported to have shown evidence of good and of imperfect vaccination respectively were in 1879, 146 and 315; in 1880, 131 and 297; and in 1881, 353 and 967, or a total for the three years of 630 good and 1,579 imperfect vaccinations; the latter forming 72 per cent. of the whole. The standard of good vaccination accepted by the Asylums Board, is lower than that laid down by the Local Government Board, so that the proportion of imperfect vaccinations would be still greater if the latter were taken. Dividing the patients according to age, we find that in the first five years of life the numbers of good and imperfect vaccinations were respectively 50 and 116, between 5 and 10 years, 194 and 497, and between 10 and 15 years, 386 and 966. The liability to smallpox increases in the same ratio in each class though it is always greater in the imperfectly vaccinated; hence the importance of re-vaccination not later than the tenth year for all, but especially for the latter, and earlier in the event of actual exposure to infection. He advocated the restriction of the power of vaccination to properly qualified public vaccinators in view of the scandalous amount of operations, unsuccessful, inefficient, or worse, performed by private practitioners; meanwhile he suggested that since attendance at school is now compulsory, all school children should be subject to inspection, and compulsorily re-vaccinated during the period of school life, earlier or later in proportion to the efficiency of the primary operation. In this connection he referred to a code of regulations enforced by the Board of Health of the State of Illinois in 1882.

Mr. C. E. PAGET followed with a very interesting report of an outbreak of smallpox in Chester, in the year 1774, by Dr. Haygarth, an intelligent physician who appears to have held the position of a self-constituted Medical Officer of Health to that city. The original document, which he handed round, is in the possession of the Regius Professor of Medicine, at Cambridge, but will shortly be reprinted and published. The population of Chester was then about 14,000 the total deaths were 546 or 34 per 1,000, and of these 202 or 14·4 per 1,000 of the population were from smallpox. The whole number attacked was 1,385, and the mortality therefore 14·5 per cent. Of the 202 deaths, 130 occurred in the last quarter of the year, and all were under 10 years of age, 51 being under 1 year, 38 between 1 and 2, 42 between 2 and 3, 49 between 3 and 5, and 22 between 5 and 10 years. Only 1 in 14 of the population escaped the disease, that is, had not contracted it at some time or other, and during the whole period of Dr. Haygarth's observations one-eighth of the total mortality was due to smallpox. Dr. Haygarth hoped much from inoculation, the best age for the performance of which, he found to be between the first and third month.

Dr. WILLOUGHBY read some similar statistics from the elaborate tables of mortality &c., in the city of Breslau, drawn up by Caspar Neumann and communicated by him to his friend Edmund Halley, the English mathematician, whose original MSS. were discovered by Dr. Grätzer, the present sanitary and registration officer of Breslau, in the library of the Royal Society of London. These tables relate to the years 1687–1691 inclusive. The population of Breslau was about 34,000; the total death-rate 34·4 per 1,000; the deaths from smallpox in the five years, 136, giving an average of 27 or somewhat under 2 per 1,000; the greatest number in any one year was 54, therefore very much less than in Chester, but the distribution according to age was the same, showing that in pre-vaccination periods smallpox was, in virtue of its intensely infectious character, a disease of childhood, as measles is now. Of the 136 deaths, 34 occurred in the first year of life, 75 between that and the fifth, 24 between the fifth and tenth, 2 between the tenth and fifteenth, and 1 after 40 years.

Dr. PRINGLE, adducing his Indian experience, observed that in that country smallpox was universal; even settlements of property being postponed until a child has passed the ordeal. Sixty per cent. of infants, and 40 per cent. of older persons die when attacked, and yet no precautions whatever are taken to avoid infection. The mortality after inoculation he put at 6 per cent., but his experience of the completeness of immunity conferred by efficient vaccination led him to put even more faith in it than was usual in Europe.

Dr. CORY, in reply to a question, said that he could find no difference in the visible results of animal and human vaccination, but that to afford the means of future observation on the relative degrees of protection it was his practice to scarify with animal lymph in the form of a cross and to make five separate insertions of humanized lymph.

Mr. MURPHY dwelt on the steady increase in the

mortality of the unvaccinated of late years, which was 14 per cent. in Haygarth's time, 35 in Marson's, and now 44, or in the case of infants, 66.

Mr. Corney asked whether goats could be used instead of calves, which in Fiji, whither he was about to return, were very scarce.

Dr. Pringle doubted this, referring to the severity of the analogous disease among sheep, as pointed out by Mr. Fleming in his able work on "Human and Animal Variolæ."

Dr. Willoughby expressed his great surprise that in a discussion, during which such frequent mention had been made of cow-pox and conjectures put forward as to its relation to small-pox, and the relative merits of the two kinds of lymph had been mooted, no one present had alluded to or seemed to be aware of Dr. L. Voigt's brilliant experiments at Hamburg, and his absolute solution of the question. He, too, had been struck by the apparent clearness of Fleming's conclusions, but was now convinced that they were utterly fallacious. Fleming agreed with the French school in discrediting the opinions of Jenner, and the alleged successes of Badcock, Ceeley, and others in the inoculation of calves with variola, and the evolution of vaccine thereby, and appealed to the disastrous results which followed the attempts of Macpherson in India and Martin at Boston, U.S.A., at repeating them, they having communicated unmitigated smallpox thereby. The French doctrine, he said, was that the sheep and goats suffered from a disease in all its characters resembling human variola, yet not protective against it, whereas the horse, cow, and camel were liable to a merely local affection devoid of danger to life, communicable only by direct inoculation, and yet though so unlike variola conferring immunity against it. This was, to say the least, paradoxical and improbable, but no number of failures to inoculate small-pox in the cow could outweigh one case of undoubted success, and such Dr. Voigt had achieved. After several failures, he had succeeded in inoculating a calf with lymph from a case of virulent small-pox in an unvaccinated patient. The first result was quite insignificant, but as he successively vaccinated others therefrom, the operation became easier, and the vesicles assumed more of the vaccinal character, until by the ninth or tenth cultivation they were indistinguishable from those produced by the most approved Beaugency lymph. After the twelfth cultivation Dr. Voigt's colleagues had no hesitation in using this new strain or stock, and indeed preferred it to all others. In short, Dr. Voigt had vindicated the reputation of our countrymen, Jenner and Ceeley, had proved that vaccine is only variola modified by passage through a foreign organism, and that all so-called spontaneous cases of cow-pox are accidental variolation or retro-vaccination; and hence the "spontaneous" eruption is always found on the parts most handled by man, and at the same time liable to abrasion, viz., the udders of cows, and the heels of horses. No increased energy was imparted to the lymph by a return to the calf, but rather the reverse, whereas there was no evidence of any deterioration of humanised lymph since the days of Jenner. If a new stock be desired, we must repeat the procedure of Voigt, difficult though it be.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE X.

Clothing.

All articles of clothing admitted into the Health Exhibition profess to have the claim either of hygienic superiority or of historical interest. Certain materials are said to conduce to healthy conditions in preference to others, and these are exhibited and explained, whilst the form and constitution of different garments are the most prominent points which attract notice in the department of healthy clothing.

In materials we have Dr. Jaeger's woollen system largely illustrated in case 277. This German doctor whilst quoting Emerson that "the first wealth is health" says, that health is only to be obtained by clothing the body in wool, which when properly prepared and woven into suitable garments affords the maximum of protection from chill and damp with the minimum of impediment to the exhalations of the skin. Dr. Jaeger not only insists on clothing the body in wool, and discarding every other material, but he advises and supplies woollen bedding and sheets of the finest kind as being conducive to health. He says a sanitarily clothed person—viz., a person clothed entirely in wool, need have as little fear of draughts as of cold or wet, and may safely sleep, so protected, with an open window at all seasons of the year. The particular feature of Dr. Jaeger's special woollen garments, is their delicate and soft texture; they feel like spun silk, and do not irritate the most delicate skin. Adherents to this principle of clothing, and there are already many who have adopted it, call themselves "woolleners," and may be said almost to constitute a sect of believers in a form of the gospel of health. All these special garments of Dr. Jaeger's are of the natural brownish colour of the wool, and are neither bleached nor dyed; they are undoubtedly most agreeable to wear, though certain modifications in their form might reasonably be suggested to suit various figures and tastes. Many who do not feel bound to accept Dr. Jaeger's system in its entirety, yet acknowledge the great advantage of soft fine woollen under-clothing, and we have varieties of woven vests, combination suits, and flannels to choose from.

There are Indian gauze waistcoats, and all sorts of delicate woollen fibres exhibited by Messrs. Thresher and Glenny (317), who took prize medals for this species of sanitary clothing, long before hygiene became the popular subject of the day. Then we have brought before us a dress material which is said to rival Dr. Jaeger's wool in its excellence—the Nonpareil Velveteen (288), which is exhibited by Messrs. Mann and Son, Manchester, and is absolutely manufactured in part before our eyes. The operation of raising and cutting the pile on the fabric is accomplished by a young woman instead of a machine, for the process is said to be too delicate to admit of any but hand labour. The operator is armed with a long and extremely thin knife, which she runs along each fine thread, doing about three yards at every stroke. It takes 50,000 passes with the knife to cut the woven loops of 100 yards each and is work which requires as much skill and dexterity as is given to the manufacture of the best Lyons silk velvet, which indeed the Nonpareil Velveteen closely resembles in its soft and graceful folds, and its peculiar rich sheen.

As to the particular sanitary excellence of this material, which may justify its presence in a Health Exhibition, it is claimed that it is peculiarly hygienic on the score that so rich and elegant a material must of necessity be worn as a plain untrimmed garment, combining lightness and warmth, suitable for wear at all seasons of our ever varying climate. This opinion might be used to endorse many other fabrics of a similar kind, which may be equally healthy, though possibly less attractive. Materials for overcoats, ulsters and waterproofs are exhibited by various makers, made up and unmade. Benjamin and Son, of Ulster House (306), show coats and cloaks declared to be waterproof but not air-tight, and free from all injurious properties. The various forms of these garments and the devices for adapting them to the exigencies of riding or walking are too numerous to be described. In Cases 298, 300, and 305, waterproofs having a sort of velvety smooth exterior, others in æsthetic colourings, and many which boast of weighing next to nothing are to be seen. The Gossamer rubber garments which, though made in America, are exhibited by Messrs. Swan and Edgar (300), can be rolled up into the space of a few inches, are perfectly waterproof, have no offensive smell and never stick together or become soft and worthless, whatever the weather may be. All these are to be seen and purchased in the clothing department of the East Quadrant.

Every article of attire that by any possibility can injure or compress any part of the human frame, is exhibited in an improved and hygienic condition. Straps, such as braces and garters are superseded by other arrangements, and suggestions how to be "beautiful and strong" meet the feminine gaze at every stall. Improved stocking and sock suspenders, adapted to "Hoven's" clip (348) are suitable alike for children and grown-up persons, entirely super-

seding the use of the garter "which always interferes with the return of blood by the veins." Hands, feet, necks, and heads are equally provided for in this hygienic collection; not only are the iniquities of tight, pointed, high-heeled boots and shoes exposed, but digitated stockings with a little place for each toe, like gloves, appeal to many who suffer from the close contact of the toes when encased in an unventilated leather boot. A member of the French Academy has said that "In a woman a corn or a bunion is a crime which cannot be expiated even by a life of torture." It is very therefore necessary to begin early in life to wear truly hygienic foot coverings to avoid so terrible a punishment for ignorance or folly. Of boot and shoe makers who exhibit their special contrivances to this end there are very many. Messrs. Dowie and Marshall (249), whose motto is "the path to health is the foot-path," may claim to have led the way to reform in the matter of boots and shoes. The founder of the firm, Mr. James Dowie, more than sixty years ago commenced business with the determination that whatever shoes he made should be made to the feet. Since that time fashion has ordained all sorts of squeezing distortions for the foot, but Mr. Dowie has continued true to his original intention only to shape coverings for the feet as nature intended they should remain. For more years than most of us can remember, this system of shoemaking has received the approval of enlightened members of the medical profession.

The children's shoes exhibited are excellent, and there can be no doubt that if these boots are to be worn at all their use cannot be commenced too early in life. In all attempts to secure healthy and comfortable boots and shoes, it should be recollected that it is not sufficient they be roomy and large, but that they are made to suit the shape, character. and type of the individual foot. Messrs. Dowie and Marshall exhibit as a specialty a thick waterproof boot, which is ventilated by means of little tubes inserted into the sole, and communicating with the air from above, in order to keep the foot cool, but the advantages of this invention are, to our mind, not very great. In the wake of Messrs. Dowie and Marshall come many other bootmakers of hygienic pretensions. Mr. John Branch, of Bethnal Green Road, exhibits a reversible boot (262), which he has patented, its peculiarity being that each boot is made so that it can be worn on either foot, and thus the uncomfortable sensation arising from boots wearing over on one side is avoided, together with the slight physical distortion which may no doubt result from it. Other bootmakers bring their boots forward on the strength of their being made on hygienic principles, Mr. John Wise (261) and Mr. Francis Lanagan, of John Street, Bedford Row (263) amongst the number. The Hercules boot, made by Messrs. Allinson, of Northampton (251), is said, as its name indicates, to be of uncommon strength and durability, by reason of its excellent materials, and to have every advantage of form and shape to ensure comfort and wear.

The time-honoured practice of tight lacing and all the abominations of stiffened and boned corsets, and steel prisons for the female form, are so entirely opposed to hygienic principles, that substitutes for the old-fashioned and cruel stays afford a large field to inventors of this class of garments. Whether women do this injustice to themselves or not, they are generally agreed in theory as to the evils of pressure on important viscera, and those whose business consists in providing acceptable garments which shall be hygienic, and at the same time not unsightly, exhibit every variety of boneless, elastic, and patent corsets. Mrs. Thomas Steele (354), to whom was awarded a medal in the last Health Exhibition, has a variety of very neat-looking bodices and stays, and she asserts that much mischief is done to the female form by thrusting it into supports not specially made for it, but manufactured by the gross to fit any figure. Whatever those of the present generation may unfortunately feel obliged to do from habit, and therefore often from necessity, in the matter of wearing unnatural supports to the figure; it is of pre-eminent importance that our girls should be saved from such injurious articles of clothing which are often the pregnant cause of delicacy in after life. It must be confessed that many of the cases we saw filled with elegantly made stays, bandages, and belts, do not seem to contain hygienic so much as fashionable articles of the sort, and we should be sorry to endorse them all as uninjurious to any possible wearer. Exercises of various sorts, such as lawn tennis, rowing, and gymnastic evolutions, are now recognized as being equally appropriate and advantageous to either sex, and the impossibility of indulging in such games in the ordinary fashionable costume, induces many ladies to adopt an entirely distinct style of dress for such occasions. Loose dresses with easy elastic bodies, and short skirts are very desirable, and those who, like the Viscountess Harberton, advocate divided skirts as being convenient, healthy, and suitable for ordinary wear, show several varieties of their special costume in the Exhibition. The Rational Dress Society has travelling and lawn tennis dresses in case 272, and Mrs. Beck shows a hygienic dress with divided skirt in 271.

Hamilton and Co. (276), the co-operative skirt and dressmakers, exhibit a case of artistic costumes, designed with reference to comfort in wear and adapted to modern requirements. Close by this gallery are displayed the historical dresses of periods prior to the reign of Queen Victoria, and it must strike every one how similar are the modern devices for health, beauty and comfort to many that were worn by our ancestors. The high waist almost under the arms in those of the early periods before Queen Elizabeth precluded the possibility of compression, and the well-covered neck, then thought so decorous and becoming, was certainly more conducive to health than the bare shoulders and exposed arms, which are demanded at the present time by court regulations for presentation at the Queen's drawing rooms, as well as by fashion for evening wear in the ball-room. The ancient and historic costumes may well be studied, not alone to see what to avoid, and to note the advance of good taste and common sense, but to observe that in many details there has rather been retrogression, for a costume may be at once graceful and hygienic, healthful, beautiful, and artistic, if extremes be avoided and common sense be used under physiological guidance.

GENERAL CORRESPONDENCE.

THE MEDICAL COLLEGE HOSPITAL OF CALCUTTA.

[To the Editor of the Medical Times.]

SIR,—I think that the question mooted at p. 66 of your issue of to-day, whether hospitalism spared the Calcutta Medical College Hospital during Dr. Mouat's incumbency and impested it in mine, is likely to interest the profession only as a problem in epidemiology. Dr. Mouat says that pyæmia and its allies certainly did not prevail in the hospital when it was in his charge. I have mentioned that, writing in 1854,[1] of a time in which Dr. Mouat held that charge, Dr. Kenneth Mackinnon, then the highest authority upon medical questions in Bengal, remarked that wounds made in operating at that hospital were apt to take on an erysipelatous action, tending to sloughing. It would therefore appear that Dr. Mouat's recollection is at fault on this now unimportant point.

With regard to the comparative immunity from hospitalism of that building of late years, Dr. Mouat and I appear to be agreed. He cites the authority of a Government resolution, I that of Professor Partridge, Q.H.S., the senior surgeon, to the effect that, up to 1878, there was improvement in the condition of the surgical patients. Dr. Mouat may be right in holding this to be due to the state of the hospital. I am inclined to attribute it largely to antiseptic treatment in a building which, although still quite unfit for its purpose, underwent great improvement at the suggestion of Dr. Mouat's successors.

I am, &c.,
NORMAN CHEVERS.
Late Senior Physician and Principal of the Hospital.

London, July 12th, 1884.

[1] Indian Annals of Medical Science, No. 3, p. 178.

INVENTIONS AND IMPROVEMENTS.

MITCHELL'S NURSERY BISCUITS.

These biscuits illustrate in a peculiar degree the way in which science is invading even such homely and ancient arts as that of the bread and biscuit baker. With the view of giving the highest quantities of flesh and bone-forming food in form suitable both to the simple tastes and frail digestions of the nursery, Mr. Mitchell, of the Regent Bakery Company, 42, Fish Street Hill, E.C., has introduced a nursery biscuit to which a certain percentage of gluten and of phosphate of lime has been added. Professor Attfield, who has analysed the biscuits, finds that they contain nearly 10 per cent. of albuminoids, chiefly gluten, and a quantity of phosphates, equal to 1·1 of bone phosphate, about a third being in the form of added phosphate of lime. He thinks that these additions give at least 10 per cent. of increased nourishing value to the biscuits. As to their practical value in the nursery dietary, no one could speak with any certainty until after a long course of comparative experiments; but we are justified in arguing, *à priori*, that if any form of food will help to stave off rickets and give children strong and sound teeth, these biscuits are as likely to do it as any that have yet been brought to our notice.

ANTISEPTIC CHARCOAL WAFER BISCUITS.

Under this name the same firm have introduced a very palatable form of charcoal biscuit, which professes to be made of the finest willow charcoal, and flavoured with pure ground ginger. These biscuits provide a very pleasant mode of administering vegetable charcoal.

HAY'S ORANGE AND LEMON CHAMPAGNES.

The number of aërated drinks which have sprung up in answer to the increased demand for non-alcoholic thirst-quenchers is really marvellous. Scarcely a week passes without some newly devised drink being brought under our notice. Hay's preparations compare very favourably with most of their rivals. They are prepared with essences made from fresh oranges and lemons, and the manufacturer has succeeded well in retaining the flavour of the fruit, and in producing pure and pleasant beverages.

MEDICAL NEWS.

Royal College of Surgeons of England. — The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners, on the 10th instant, and when eligible will be admitted to the pass examination, viz.:

Edward L. C. Smith and Richard W. Young, students of University College Hospital; Henry S. Smith, of St. Bartholomew's Hospital; Alexander J. Adie and Thomas Austin, of Charing Cross Hospital; Brown Clark, of London Hospital, and Edward H. C. Sullivan, of St. Thomas's Hospital.

Eleven candidates were referred for three months, and two for six months.

The following gentlemen passed on the 11th inst., viz.:

William H. Duce, William E. Redman, and John P. Millington, of University College Hospital; Evan J. Williams and Reginald J. Braye, of the London Hospital; John G. D. Cort-Warburton, E. Carden, and John Dallewy, of Charing Cross Hospital; Henry A. Haviland and Joe Iredale, of St. Bartholomew's Hospital; Richard E. E. South and Alfred E. Cox, of St. Thomas's Hospital, and Henry E. Craig, of Guy's Hospital.

Eight candidates were referred for three months, and three for six months.

The following gentlemen passed on the 14th inst., viz.:

Robert W. Cameron, of the Manchester School; G. P. Barton, Charing Cross Hospital; E. C. Anderson, of St. Mary's Hospital; R. H. F. Routh, N. A. Butterfield, T. J. Hall, and P. J. Clark, University College Hospital; F. R. Mallard and F. A. Mast, St. George's Hospital; G. S. Shute, Guy's Hospital, and W. J. Harris, St. Thomas's Hospital.

Eight candidates were referred for three months, and one for six months.

Two hundred and thirty-four candidates presented themselves for their primary examinations, as against two hundred and fifty-two at the corresponding time last year. Of this number, one hundred, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, and twenty-one for six months, a total of one hundred and twenty-one registered candidates.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 10th, 1884:—

Carmel Samut, Floriana, Malta; Hyde Marriott, Dial House, Stockport.

The Parkes Museum.—At the annual meeting held July 9th, Capt. Douglas Galton in the chair, a letter was read from the Duke of Westminster, regretting his inability to attend the meeting, and a report was presented by the Chairman of Council, showing the valuable work that had been carried out by the Museum during the past year. Twenty-one lectures have been arranged by the Council and delivered in the Museum by some of the best authorities on hygiene and sanitary science. These lectures have contained much valuable information, and have dealt with a majority of the subjects included in the scope of the Museum in a most useful and interesting manner. The Museum has been largely used by lecturers on Public Health, and other skilled teachers for practical demonstrations to various classes of students, &c., who for this purpose have been admitted to the Museum without entrance fee. In this way the special advantages offered by the Museum have been utilized for the purpose of instructing a large number of students and others who, by the nature of their several callings, may be expected in various ways to exercise an important influence in the promotion of health in connection with the construction of dwellings and otherwise; and the Council are glad to report that the facilities thus offered have been fully appreciated, both teachers and students having expressed a desire that further opportunities of the same sort might be afforded them. The members numbered 99 on June 30th, 1883, just after the opening of the Museum. They now number 260. During the year the Museum has been visited by 6,870 people. The lamented President, His Royal Highness, Prince Leopold, Duke of Albany in his inaugural address of May 26th, 1883, said that the sole object of the Museum was "to disseminate and to help others in disseminating the laws of health." The sphere of work thus foreshadowed by the late Duke of Albany has, as will be evident to those who peruse this report, become an accomplished fact in every particular. The Council cannot believe that the very moderate amount of money which is necessary for the permanent establishment of the Museum will be withheld, or that the public will allow an establishment, the welfare of which the late Duke of Albany had so much at heart, to languish for want of funds. The utility of the Museum has increased month by month. The Museum has clearly met a great public want, and the Council would again strongly urge upon the members, and upon all who are interested in sanitation, to use their personal influence, so to increase the number of members and life members that the future of so valuable an institution may no longer be a matter of doubt.

British Medical Association.—The annual meeting of the Aberdeen, Banff, and Kincardineshire Branch of the British Medical Association was held in Aberdeen last Saturday. The members of the association visited the Royal Infirmary, where a demonstration was given by Professor Alexander Ogston, showing how club-foot might be rectified at one sitting. There was also a demonstration by Dr. Angus Fraser of microscopical specimens of tubercle bacillus, and Dr. Garden showed a man with true Eastern leprosy. In the afternoon, the members dined together,

when a few happy hours were spent. Professor Alexander Ogston was unanimously appointed chairman for the ensuing year, as were the two secretaries, Drs. Garden and M'Kenzie Booth, and Dr. Hall was re-appointed treasurer. It was agreed to hold the next summer meeting of the branch at Laurencekirk.

Society for Relief of Widows and Orphans of Medical Men.—The usual quarterly court of directors of this society was held on Wednesday, July 9th, at 8 p.m., Sir Henry Pitman, V.P., in the chair. It was resolved that a sum of 1,257*l.* be distributed among 59 widows, five orphans, and three recipients of grants from the Copeland Fund. The expenses of the quarter were 39*l.* 17*s.* The treasurer announced the following donations:—Sir Erasmus Wilson, V.P., 100 guineas; Cæsar H. Hawkins, Esq., V.P., five guineas; Dr. Bissett Hawkins, V.P., 10*l.*; and J. Gregory Forbes, Esq., V. P., two guineas. Six new members were elected. The secretary reported the deaths of two. Applications were read for the first time from two widows, and grants were made to them. A discussion having occurred at the annual general meeting on the meaning of Law 66, and a wish expressed to have the law defined, the secretary read a letter from the honorary solicitor, Mr. Upton, from which it appeared "Eligibility depends on being the widow or orphan of a person actually a member for three years immediately preceding his decease, not on the payment of three subscriptions."

The West London Medico-Chirurgical Society.—The second annual dinner of this society was held on Tuesday, July 15th, at the "Star and Garter," Hotel, Richmond, under the Chairmanship of Dr. J. L. Thudichum, President of the Society. Much amusement was afforded by the "Menu" which had been rendered into classical Latin by Dr. E. Hart-Vinen, a feat of no ordinary difficulty. The after-dinner proceedings were enlivened by an excellent programme of vocal and instrumental music, given with much ability by the Misses Thudichum, Mr. Bere, and other ladies and gentlemen. Thirty-five members and visitors sat down to dinner.

Army Medical Department.—Deputy Surgeon-General T. W. Fox has been appointed to act as Principal Medical Officer of the British Army of Occupation in Egypt, Vice Surgeon-General J. Irvine, granted special leave of absence to England till September next. Dr. Irvine had medical charge of the Army of Occupation throughout the cholera epidemic of last year, and was specially commended for his services in connection therewith.

The Sanitary Institute.—The anniversary meeting was held on the 10th instant, Earl Fortescue presiding, when Dr. H. C. Bartlett delivered an address on practical sanitation. He took in a wide field, and alluded, in the course of his remarks, to the present epidemic of small-pox and the threatened one of cholera, to the disposal of refuse, the provision of good and cheap food, and the abatement of the smoke nuisance. In the evening the anniversary dinner was celebrated, under the Chairmanship of Dr. A. Carpenter.

Medico-Psychological Association.—The annual meeting will be held, under the Presidency of Dr. Henry Rayner, at the Royal College of Physicians, Pall Mall, London, on Wednesday, July 23, 1884, at 11 a.m., and 2 p.m.

The Cholera Epidemics of Paris.—In the epidemic of 1831, there were 18,402 victims of the disease; 19,184 in 1849; 11,520 in 1853–54; 5,357 in 1865–66; and 854 in 1873.

Cinchona Cultivation in India.—From an official statement of the trade of British India, just issued, it appears that the export trade in drugs has doubled during the last five years. As might be expected the increase is due to the development of the trade in cinchona bark, which now represents about two thirds of the total exports. During the last year the quantity of bark exported reached 641,608 lbs. while seven years previously it only amounted to 72,452 lbs. Madras contributed most largely to swell the exports, the cultivation of cinchona in that Presidency being more extensively carried on in private estates than in Bengal, where the principal cinchona estates are the property of the Government, which reserves a large proportion of the bark for local alkaloid manufacture. Most of the bark hitherto exported has come to London, but the demand from Italy is increasing. The manufacture of alkaloid seems to be seriously affecting the import of quinine from Europe, as last year it fell to 7,585 lbs. from 10,615 lbs. in the previous year. As matters now stand, it is stated officially in this report that imports of quinine, on account of the Government, have already practically ceased, and an opinion is expressed that in course of time quinine will no longer be imported into India, since that country will be able to supply all her wants from the plantations of Darjeeling and the Nilgiris.—*Indian Medical Gazette*, June.

Scholarships for Female Medical Students in Bengal.—The *Indian Medical Gazette* for June reports that the Bengal Government has determined, during the next ten years, to grant scholarships to all women who, having passed the First Arts Examination, desire to study medicine in the Calcutta Medical College. The scholarships are to be in value 20 rupees per month, tenable for five years—the duration of the curriculum for a degree at the College. This plan of granting stipends was regularly resorted to in the early days of the Medical College as an inducement to male students; and in the year 1838–39 there were 50 students in receipt of sums varying from seven to twelve rupees per month. "This unlimited grant of scholarships will undoubtedly have the effect of attracting a larger number of Brahmo and native Christian girls to the study of medicine in Calcutta; and the rule which enforces the passing of the First Arts Examination prior to their becoming students of medicine, will secure an older and a more highly educated class than that which is admitted into the Bombay and Madras Schools, where the entrance examination standard is relatively much lower. The resolution appropriately closes with the observation that only the experience of years can show whether the educated women of Bengal will avail themselves of the facilities now offered them, and prove, by real work, that they are fit for the duties and responsibilities which some of the more advanced among them are anxious to assume."

Sanitary Condition of Calcutta.—A memorial, praying the Lieutenant-Governor of Bengal to call the Calcutta Corporation to account for its neglect of sanitation, has received over 1,000 signatures, including those of the Chief Justice and Judges of the High Court, the Bishop of Calcutta, the Vicar-Apostolic of Bengal, the Surgeon-General, the President of the Chamber of Commerce, the Advocate-General, and the majority of the Bar; in fact, almost the entire European community. It is to be hoped that this strong expression of feeling will induce Mr. Rivers Thompson to deal with the matter promptly and vigorously.

A Siamese Student.—In the list of names of those who have recently passed the final examination for the degrees of M.B., C.M., at Edinburgh University, is that of Mr. Yai S. Sanitwongse. This gentleman was sent to Edinburgh ten years ago by His Majesty the King of Siam, for the purpose of receiving an education in medicine and surgery. Mr. Sanitwongse was educated at the Collegiate School, and although he has passed all his examinations at the University, cannot graduate till next year, being yet under age.

Precautions against Cholera.—With the view of preventing the importation of cholera into the United States, telegraphic instructions from Washington have been received at the American Consulate General in London, to appoint Medical Inspectors to examine all vessels sailing from London and Liverpool for the United States of America. The Consul-General has accordingly appointed Dr. J. Higham Hill, Health Inspector at London.

Army Medical Department. — Charles Frederick Staunton, M.D., Royal Artillery, died on Saturday at his residence in Dublin. He became an assistant surgeon in the Medical Department of the Army in 1830, surgeon in 1846, and was placed on half-pay in 1857. Mr. Staunton was the last surviving officer who served in the Euphrates Expedition.

Presentation to Mr. F. G. Hallett.—At the conclusion of the primary examination for the membership of the Royal College of Surgeons, Mr. Pick, as chairman, in the name of the Board of Examiners, presented a handsome silver service of salt cellars to the assistant secretary, Mr. Hallett, on the occasion of his approaching marriage. Mr. Pick alluded to the kindness, courtesy, and urbanity of the recipient to those with whom he had had to deal, and concluded by wishing him all happiness and success.

The *Matinée* recently given at the Avenue Theatre on behalf of the East London Hospital for Children and Dispensary for Women, at Shadwell, has resulted in an addition of 60*l.* to its funds.

"Our Confrère Prince Charles Theodore."—The Munich journals publish the following announcement, signed by the brother of the Empress of Austria, whose ophthalmological skill is well-known through his practice at Mentone. "All blind persons, or those suffering from disease of the eyes, may be received in a very comfortable establishment recently constructed at Tegernsée, Bavaria. Indigent persons provided with certificates explanatory of their position are admitted gratuitously."

Vital Statistics of Melbourne in 1883. — The Government Statist reports that the number of births registered was 10,093, or 33·09 per 1,000 inhabitants. The deaths numbered 5,923, or 19·42 per 1,000, or 1·42 below that of the preceding decennial. Of the births, 51·5 per cent. were male and 48·5 per cent. female, and of the deaths 54 per cent. were male and 46 female. Children under 5 years of age contributed 36 p r cent. of the total mortality. There is a considerable diminution of deaths from most zymotic diseases, except typhoid fever, from which there were 275 against 197 in 1882.

The Quiet Heroism of Doctors.—In an address delivered to the class of the Iowa College of Physicians and Surgeons (*Louisville Medical News*, May 31), Dr. Williamson cited for the admiration of his young audience the noble conduct of the medical profession at Norfolk, Virginia, on the occasion of a deadly invasion of cholera in 1848 (paralleled indeed in the great yellow fever epidemic of 1878), in which resident physicians became exhausted by over-work, or were carried off by the disease. A cry was raised for help and this was forthcoming from town and country, practitioners leaving their homes and friends, heedless of personal danger. "It was a time of deepest gloom. Silently they walked deserted streets, engaged in a combat wherein no martial music or battle's din was heard to support their courage. The pestilence came to an end, and so too did the lives of *forty* of those brave ones who had come forward at duty's call. They died and were hastily buried, and there their story ends. No stately shaft marks their resting-place. Few indeed ever heard that any such precious offering was then made on humanity's altar. And why? Because it is expected that practitioners be always ready to do just as they did. Nothing remarkable, therefore it is so soon forgotten. Religion may count her martyrs, patriotism may point to blood-stained fields, and science may boast of votaries whose lives went out in Arctic snows, but I know of no instances that transcend in moral heroism the self sacrifice of these forty forgotten worthies, and of none whose names more deservedly belong to the roll of the immortals."

Medical Experts.—Alluding to a discussion upon experts which has been going on, the *New York Medical Record*, May 31, observes "It can hardly be expected that expert testimony can be given candidly and satisfactorily, when the experts are specially called either to help plaintiff or defendant. The plans suggested for remedying the present evils all agree on this one point, that the Court should summon experts. Objection is made, nevertheless, to submitting the case to one or more persons, however skilful and impartial, for final settlement. This plan, which is followed in France, would settle matters too peremptorily to be satisfactory to the American mind. It would be better, therefore, that experts be appointed to whom technical and scientific questions be referred, to be examined and reported upon. These experts can then be cross-examined by counsel upon each side. Even if no such commission of experts be established, some good might be accomplished by putting certain restrictions upon those who are summoned as medical experts. At present the law can call upon medical students, quacks, and midwives to serve as experts. In cases of insanity this is especially unfortunte, and it is particularly in regard to this class of cases that reform in the methods of giving medical expert testimony should be brought about."

An American Doctor in Syria.—The *New York Medical Record*, June 14th, gives the following account of Dr. George Post, who has for many years been a medical missionary in Syria, in connection with the American Presbyterian Church. He has achieved a high reputation there, and if he were to give himself up to private practice he could amass a fortune rapidly. As it is he has a great many cases forced upon him, especially difficult surgical cases. If a Pasha breaks a bone he will have no one but the American missionary. But he prefers to give his services to the poor, and of such services there is no end. He is going on from morning to night, attending in the hospital without compensation, as well as lecturing in the college, writing books, and editing a medical journal. He has prepared a series of text-books on surgery, materia medica, zoology, and physiology, besides a concordance of the Arabic Bible, a large octavo volume. He has also been engaged recently in the preparation of a work on the flora of Syria and Palestine. This is not only the first work in Arabic on this subject, but the first comprehensive work in any language. It is expected that it will be of great value to students and all engaged in the work of Palestine exploration.

Alleged Importation of Lunatics into the United States.—The increase of the insane by importation was made the subject of resolutions at the recent meeting of the Association of Medical Superintendents of American Asylums for the Insane, by which Congress was asked to take measures to check the increase of lunacy from that cause—amounting, it was said, to one-third of all the insanity of the country.

University of Jena.—During the summer session 1883-84 162 students have enrolled themselves in the Medical Faculty, 100 being foreigners and 62 natives. In the winter session there were 142, and in the summer session of 1883 139 medical students.

Migration from the Country in France.—In a paper published in the *Journal de la Société de Statistique* for May, M. l'Abbé Tounissoux states that in official returns made since 1846, a distinction has been established between the *urban* population living in towns of above 2,000 inhabitants and the *rural* population occupying the other localities. The total superficies of France amounts to 52,857,199 hectares, viz., 3,103,490 for the towns, and 49,753,700 for the country. While the country comprises 94 per cent. of this superficies, but has only a mean population of 50 inhabitants to the square kilometre, while the towns have about 336. The migration into the towns has been exhibited in every census since that of 1846, so that while the urban population increased from 24·42 in 1846 to 32·41 in 1876, the rural population decreased from 75·58 to 67·56. According to the census of 1881, the total population of the 87 departments was 37,062,548, or an increase of 706,260, of which 561,869 is assigned to towns of 30,000 and upwards, and 204,591 to the rest of the population, although this last category forms five-sixths of all the population. The number of foreigners in France in 1881, it may be observed, was 1,001,090 or 2·68 per cent., having risen from 1·06 in 1851. The increase since 1876 has been 15·4 per cent. of Belgians, 45·6 of Italians, 38·9 of Germans, 18·2 of Spanish, 32·0 of Swiss, and 23·0 of English.

Omnibus Traffic in Paris.—According to the monthly return for March of the Paris Omnibus Company, there were made in that month 8,806 journeys, carrying 9,987,407 passengers. The tramcars transported in 3,949 journeys 6,687,310 passengers. In eight journeys by two tramcars 8,047 workpeople were carried in the early morning.

Experiments after Decapitation. — The head of Campi, who was recently decapitated, was taken to M.

Laborde's laboratory, who, together with M. Gley, made some experiments upon the body about an hour and a half after execution, the results of which may be thus summed up:—(1) Extreme contraction of both the right and left cavities of the heart. (2) Some blood from a dog having been transfused into the cranium by the carotid, the face passed from a state of lividity to the ordinary colour, and its muscles then contracted under the influence of the electric current. (3) After having exposed the internal and external intercostal muscles, M. Laborde passed electric currents through their attachments, and then observed that each electrical stimulation of the internal intercostals, and consequently each muscular contraction of these muscles, determined the depression of the upper ribs towards the lower, while it led to the elevation of the external intercostals. M. Laborde concludes from this that the external muscles serve for the purpose of inspiration and the internal muscles for expiration. (4) The movements of the brain were examined under the same conditions as those employed by M. Luys, that is with the cranial cavity communicating with the exterior, and the cerebral mass was seen to separate itself from the walls of the cranium during the different inclinations of the head. —*Gazette Hebdomadaire*, June 27th.

Medical Advertising.—The medical press of England, says the *New York Medical Record*, occasionally comes out with some stringent criticisms on the practice of advertising medical books in the daily papers. The general sentiment of the profession there is emphatically opposed to those public announcements of technical medical works with their authors' names and titles. A similar feeling prevails among the physicians in this country, and has very generally been respected. We observe, however, that of late several medical works have been advertised in the city papers and on the side-walks along with the other publications of the firms. Authors who allow this enlarge the circle of their readers, but they also weaken their own standing among their medical brethren. A good medical work cannot be made intelligible to general readers, and the very fact that attempts are made to secure such an audience, stamps the work at once as of questionable authority and value.

A Verdict by Averaging.—Dr. Sutton performed enterotomy on a lady at Pittsburg, removing four inches of the small intestine, and uniting the ends by suture. She recovered, and as her husband was reported to be wealthy, Dr. Sutton charged 1,000 dollars for the operation and 22 days' attendance. Payment was refused, and an action was brought. The jury returned a verdict of 330 dollars for the services rendered. Some of the jury thought that ten dollars would be a fair price for the operation, and one of them thought that, as he had once paid a doctor 30 dollars for an operation, this sum would be about right. They each put down the amount they would allow, and divided the aggregate by twelve, and fixed that amount as the verdict.

Communication of Scarlatina through a Letter.—Dr. Assmann, of Wohlan, reports that the family of an officer, residing at Dantzic, received a letter, giving an account of a case of scarlatina. The envelope of the letter was accidentally given to the youngest child to play with, and in six or seven days it had an attack of scarlatina, and within an interval of two or three weeks two of the other children contracted the disease. The conveyance of the disease by the letter acquires additional confirmation from the fact that for six months prior to the occurrence of the outbreak no case had occurred in the place.

Comparative Medicine.—Dr. J. C. Peters, as the result of extensive observation and research, the latter extending from Percival's work on hippopathology, published in 1834, to the London *Veterinarian* for September, 1883, has come to the conclusion that amongst the various diseases of animals communicable to man, and *vice versâ*, must be included "angina maligna, undoubted diphtheria, and both scarlatina and true measles." Amongst other evidence, he states that Dr. J. N. Stickler, of Orange, N.J., had successfully inoculated two colts with human scarlatinal virus.

APPOINTMENTS.

Beatley, William Crump, M.D. Durh., M.R.C.S. Eng.—Senior Assistant Medical Officer to the Somerset and Bath Lunatic Asylum, Wells.

Broughton, Henry Todd, M.R.C.S., L.M. and L.S.A. Lond.—Medical Officer to Heckmondwike District, Dewsbury Union, in succession to Mr. James Turton, resigned.

Carnelly, Matthew, L.R.C.P. Lond., M.R.C.S. Eng.—Medical Officer to the Wilford District, Basford Union, *vice* Dr. John Hall, deceased.

Chute, James, B.C., B.A., L.M. Univ. Dub.—Medical Officer to the Pembridge District, Kington Union, *vice* Mr. D. Wilson, resigned.

Collins, W. J., M.D., B.S., B.Sc. Lond., F.R.C.S.—Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital.

Couch, John Quiller, M.R.C.S. and L.M. Eng., L.S.A. Lond.—Medical Officer to the Fifth District, Penzance Union, *vice* John Quick, transferred to First District.

Davies, J. T., M.R.C.S., L.R.C.P.—Resident Medical Officer to the Denbighshire Infirmary, *vice* Hammond-Williams, resigned.

Glynn, T. R., M.D.—Professor of Medicine in the University College, Liverpool, *vice* A. T. H. Waters, M.D., resigned.

Hardy, H. Nelson.—Divisional Surgeon to the P. Division of the Metropolitan Police for North Dulwich and East Dulwich Stations.

Hodges, John F., M.D.—Examiner in Sanitary Science, Royal University of Ireland.

Hughes, J. M., M.R.C.S., L.S.A.—Junior Medical Officer to Cornwall Works Dispensary, Handsworth, Birmingham.

Kempe, John Arthur, M.R.C.S. Eng., L.R.C.P. Lond.—Medical Officer to North Tawton District, Okehampton Union, in succession to Mr. J. H. Norman, resigned.

Lynam, R. G., M.R.C.S., L.S.A.—House Physician to the North Staffordshire Infirmary.

Pratt, William Sutton, L.F.P.S. and L.M. Glas., L.S.A., London.—Medical Officer to Third District, Daventry Union, in succession to Mr. F. B. Swaun, resigned.

Quick, John, M.R.C.S. and L.M. Eng., L.S.A. Lond.—Medical Officer to the First District and the Workhouse, Penzance Union, *vice* J. R. Quick, deceased.

Savill, T. D., M.D., M.R.C.P. Lond.—Assistant-Physician to the West London Hospital, *vice* Theodore Dyke Acland, M.A. Oxon., M.R.C.P. Lond., resigned.

Voelcker, John Christopher Augustus, F.R.S.—Analyst for the Borough. Remuneration, £1 1*s.* for each analysis.

Welsh, R. C., M.B., C.M. Edin.—Assistant House Surgeon to the Liverpool Dispensaries, *vice* Hadden, M.D., M.Ch., &c., resigned.

VACANCIES.

Addenbrooke's Hospital, Cambridge.—Physician and an Assistant Physician. (*For particulars see Advertisement.*)

Birmingham General Dispensary.—Resident Surgeon. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), furnished rooms, fire, light and attendance. Candidates must be registered and possess both a medical and surgical qualification. Applications, together with original testimonials and certificates of registration, to be forwarded to the Secretary, on or before July 22.

Bristol Dispensary.—Surgeon. Candidates must possess a diploma in surgery from the Royal College of Surgeons of England, Scotland or Ireland, or from the Faculty of Physicians and Surgeons of Glasgow, and in addition to such diplomas in surgery, must possess a legal qualification to practise Medicine in Great Britain and Ireland, and be duly registered according to the regulations of the Medical Act. For salary and other particulars, apply to Mr. E. Stock, 57, Queen Square, Bristol, to whom testimonials must be sent on or before July 31st.

Cheshire County Asylum, Parkside, Macclesfield.—Assistant Medical Officer. Salary to commence at £120 per annum, with furnished apartments, board, attendance and washing. Candidates must be registered and doubly qualified, unmarried, and not over 30 years of age. Applications, with testimonials to be sent to Dr. Sheldon, Medical Superintendent, on or before July 19th.

Ecclesall Bierlow Union.—Medical Officer to the Fourth District, in succession to Mr. William McBeath, resigned. Area, 1,477 acres. Population, 35,709. Salary, £57 10*s.* per annum.

London Hospital Medical College, Turner Street, Mile End, E.—Two Assistant Demonstrators of Anatomy. (*For particulars see Advertisement.*)

Scarborough Hospital and Dispensary.—Assistant House Surgeon and Dispenser. Salary, £50 per annum, with board and lodging. Testimonials to be addressed to the Secretary not later than July 26th.

Staffordshire General Infirmary, Stafford.—House Surgeon and Secretary. Salary to commence at £100 per annum, with board, lodging and washing. Every candidate must possess a diploma or degree in surgery from the College of Surgeons in London, Edinburgh or Dublin, or from one of the Universities, and a qualification in Medicine which shall entitle to register, and they must produce unexceptional testimonials of moral conduct. Applications, accompanied by diploma or certificates of registrations, with copies of testimonials, to be sent under cover to the Secretary, addressed to the Committee of Selection, on or before July 24th.

St. Pancras, Middlesex.—District Medical Officer. (*For particulars see Advertisement.*)

Stronsay Parochial Board.—Medical Officer and Vaccinator. (*For particulars see Advertisement.*)

The General Hospital, Birmingham.—Resident Medical Officer. (*For particulars see Advertisement.*)

DEATHS.

BALFOUR, W. G., M.R.C.S., L.R.C.P., late of Alton, Hants, at Bombay, on June 15th.
KEELAN, N. W., L.R.C.P., L.R.C.S., at Roscau, Dominica, West Indies, on June 17th, aged 42.
MILLER, J. W. M., M.D., M.R.C.P., M.R.C.S., J.P., at Southsea, on July 9th, aged 64.
PARKER, W., M.D., at 37, Pultcney Street, Bath, on July 13th, in his 72nd year.
STAUNTON, C. F., M.D., R.A., at 35, Waterloo Road, Dublin, on July 12th, aged 83.

NOTES, QUERIES, AND REPLIES.

A Hard-Working Surgeon. — Under the above "caption," Asiatic and American Philosophical Journals have recently been giving very lengthened notices of "Five Hundred Sunday Lectures," by Dr. William Hitchman, M.R.C.S., Consulting Surgeon to Leeds Public Hospital for Cancer, Scrofula, and Diseases of the Skin. Their motto is sufficiently cosmopolitan, viz., "Live purely, exercise justice, love truth," while the topics of the times discussed by the Lecturer and subsequent debaters, have been so catholic as to embrace Biology, Physiology, Psychology, Natural Religion, and the Physical History of Maukind. The "Wickedness of Overcrowding" has also received much consideration. Some of the "Hitchman Lectures" are in Sanscrit and other languages.

COMMUNICATIONS RECEIVED—

Prof. GAIRDNER, Glasgow; Mr. LAWSON TAIT, Birmingham; Dr. CLIFFORD ALLBUTT, Leeds; Dr. BANHAM, Sheffield; Dr. F. T. ROBERTS, London; Mr. WYNTER BLYTH, London; THE SECRETARY OF THE AMERICAN EXHIBITION IN LONDON, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE PRESIDENT OF THE ST. THOMAS'S HOSPITAL AMBULANCE COMPANY, London; Dr. H. DONKIN, London; OUR DUBLIN CORRESPONDENT; M. H. W. PHILLIPS, Bradford; THE REGISTRAR-GENERAL FOR QUEENSLAND, Brisbane; THE PRESIDENT OF THE OTOLOGICAL CONGRESS, Bâle; Dr. SHINGLETON SMITH, Bristol; Dr. SAWYER, Birmingham; Dr. RAYNER, Hanwell; Dr. PEARSE, Plymouth; Dr. WOLFENDEN, London; OUR VIENNA CORRESPONDENT; Mr. J. BELLAMY, LOCAL GOVERNMENT BOARD, London; Mr. E. BELLAMY, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE SECRETARY OF THE PARKES MUSEUM, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE PRESIDENT OF THE SOCIETY FOR THE STUDY AND CURE OF INEBRIETY, London; Mr. H. NELSON HARDY, Dulwich; Mr. GEO. H. R. WILLIS, London; THE HON. SECRETARY OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY, London; Mr. BLACKETT, London; Mr. MORTON SMALL, London; Dr. J. S. CAMERON, Huddersfield; Mr. GARTH WILKINSON, London; Mr. A. A. KNIGHT, London; THE CHAIRMAN OF THE BOARD OF GUARDIANS OF THE PARISH OF ST. MARYLEBONE; Dr. J. W. MOORE, Dublin; Dr. J. H. HILL, London; Dr. DRESCHFELD, Manchester.

BOOKS RECEIVED—

Memoir of the Nature of Diphtheria, by Drs. H. C. Wood and H. F. Formad—The Theory and Practice of Medicine, by J. S. Bristowe, M.D. Lond., &c.—Notes on Health in Calcutta and British Emigrant Ships, by W. H. Pearse, M.D., Edin.—Evolution of Epidemics and the Alliances of some Diseases, by W. H. Pearse, M.D., Edin.—Health Studies, by H. Sinclair Paterson, M.D.—Studies in Life, by H. Sinclair Paterson, M.D.—Annual Report of the London Temperance Hospital—The Right and Necessity of a Popular Veto on the Liquor Traffic—Medical Education.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal—Louisville Medical News — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften —Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad — Société Médicale—Scienze Mediche — Westminster Review—Popular Science News—Revue des Sciences Médicales—The Western Medical Reporter—The Medical World—The Chemist and Druggist—The Journal of the Vigilance Association—The Journal of the British Dental Association—The Canadian Practitioner.

APPOINTMENTS FOR THE WEEK.

Friday, July 18 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westmiuster Ophthalmic, 1½ p.m.

Saturday, July 19.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, July 21.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, July 22.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

INTERNATIONAL HEALTH EXHIBITION (EPIDEMIOLOGICAL SOCIETY'S CONFERENCE)—2.30 p.m.: President's Opening Address, "On Health in India;" Dr. Squire, "On the Change of Type in Epidemic Disease."

Wednesday, July 23.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

INTERNATIONAL HEALTH EXHIBITION (EPIDEMIOLOGICAL SOCIETY'S CONFERENCE)—11 a.m.: Surgeon-General Priugle, "On Leprosy in India, and the best means of preventing its increase;"—2.30 p.m. "Discussion on the Preseut Aspect of Cholera in Europe," opened by Inspector-General Lawson.

Thursday, July 24.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES

AND GAZETTE.

No. 1778. LONDON, SATURDAY, JULY 26, 1884.

Contents.

HEALTH IN INDIA.[1]

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.,
President of the Epidemiological Society.

Bombay, a city delightfully situated upon an open bay, considered to be scarcely inferior in beauty to the Bay of Naples, was made over to us by the King of Portugal in 1661, as part of the dowry of Catherine of Braganza. When Dr. John Fryer visited Bombay, about eleven years later, he found the English President living with all the state of a Viceroy, having a council, a body-guard of cavalry, chaplains, linguist, mint-master, physician, chirurgeons, and domestics, silver staves to wait on him whenever he moved out of his chamber, trumpets to usher in his courses, soft music at his table, large milk-white oxen for his coach, standards borne before him, and a sombrero of state always carried over him; still "for all this gallantry," adds Fryer, "I reckon they walk but in charnel houses." "In five hundred, one hundred survive not; of this one hundred one quarter get not estates; of those that do, it has not been recorded above one in ten years has seen his country."

During the two hundred and twelve years which have elapsed since Fryer visited India, the British rulers of that country have lived quite as well as they did in his time, possibly too well; but, notwithstanding the spread of enlightenment, the improvement of medical science, and the introduction of large measures of sanitation, the Anglo-Indians of the present day have not wholly succeeded in throwing off their ancient habit of "walking in charnel-houses."

To those who have not fully considered the matter this may appear strange when I mention that, while the worst diseases of India—cholera, marsh fevers, and dysentery—are in a large measure avoidable by those who live prudently and comfortably, he who takes with him to that country a sound constitution, as most Europeans do, may anticipate complete immunity from many of the direst maladies of his native land, such as pulmonary consumption, cancer, rheumatic fever and heart-disease, scarlatina and typhus, gout and scrofula.

It is not easy to review, in a space of less than half-an-hour, the diseases which annually destroy about 5,000,000, in a population of 260,000,000, and to point out the means by which, under Providence, that vast mortality may be commanded and diminished. It is clear that none but large facts must engage our attention. I think that the consideration of these facts may afford some useful suggestions to our home sanitarians.

Practically, much good sanitary work was done in India, especially in ships, military cantonments, and

[1] An Address delivered at the opening of the Conference of the Epidemiological Society of London, at the International Health Exhibition, July 22nd, 1884.

prisons, long previous to the year 1858; but it was only after the promulgation in that year of the report of Sidney Lord Herbert of Lea's commission on the "*Regulations affecting the Sanitary condition of the Army, the Organization of Military Hospitals, and the Treatment of the Sick and Wounded*," that Government began to establish a sanitary system in India. The history of the introduction of that life-giving measure among our Oriental millions will afford a singular illustration of the forces which retard human progress, which has still to be placed on record. It is sufficient to say here that India did not receive the boon with any tokens of hearty appreciation or cordial gratitude.

Much has still to be done before the General Census, Birth and Mortality Returns of India can be regarded as being either full or accurate; still, as we now have them, they convey to us many importantly suggestive truths.

The census of 1881 showed that India then had a population of 253,891,821.

Fayrer gives the registered deaths from all causes in India, in the year 1879, as 4,975,042.

Among the principal causes of sickness and mortality in India are Famine, those Malarious Fevers, of which Ague is a type, Cholera, Bowel Complaints, and Small-pox.

I shall review these and the means necessary for their prevention with great conciseness.

Famine: We need only open the table of contents of Hunter's "Annals of Rural Bengal," to learn what dire consequences arose in that province during a season of scarcity. We have these headings—"Permanent effects of the Great Famine of 1769–70. The crop of 1769. Distress anticipated, but the land-tax raised. The famine declares itself. One third of the people perish. The living feed upon the dead. The December harvest (1770) restores plenty; but to a silent and deserted province."

The famine which ravaged Orissa in 1866, consequent upon the failure of the rice-crop of the preceding cold season, is supposed to have carried off at least a fourth part of the population of that great province. In the Pooree district alone, 213,944 deaths occurred in a population of 754,751.[2] Dr. Vandyke Carter calculates, from official returns, that, in the famine years, 1877 to 1879, the population of the Bombay Presidency lost an excess upon the ordinary rate of 188,326 by fever alone; and that, in 1877, their total deaths were 627,708, or 259,448 (41·3 per cent.) in excess of those of the previous year.[3]

Although declared famine does not constantly prevail as a cause of mortality in India, failure of crops in any year may produce it, and neither civil war nor pestilence works such lasting ill effects upon a population as it does. The means for its prevention must therefore be permanent and constantly available. Among the chief of these are *Irrigation Works* sufficiently extensive to obviate as far as possible the evil effects of dry seasons. Writing two years ago, Sir Joseph Fayrer showed[4] that there were then in India "12,750 miles of lesser or greater canals, whilst the total length of the distributing canals is unknown. In Northern India alone, however, it amounts to 8,300 miles. The area now irrigated amounts to 1,900,000 acres in Madras and Bombay, 300,000 in Behar and Orissa, 1,450,000 in the North-West Provinces, 1,350,000 in the Punjab, and 1,250,000 in Scinde; in all, 6,310,000 acres. A great and noble work assuredly! Still "what is this among so many?" The report exhibiting the moral and material progress and condition of India during the year 1881–82 shows that protective works, the first object of which is to forestall famine, are "constructed on a yearly allotment of 750,000*l.*, the moiety of the one and a half million set apart annually as a Famine Insurance Fund."

The extent of India is so great and the productive power of its acres is generally so large that famine has never visited the whole peninsula. Consequently, whenever the superabundant produce of provinces A B and C can with sufficient promptitude be conveyed to and distributed throughout the famine-stricken districts of province B, the evil effects of a season of scarcity will be reduced to a minimum. Therefore, *Railways and good Roads* are among the most efficient means of preventing and relieving famine in India. Little more than thirty years ago, I witnessed the opening of the first section of the railway line in India. Mr. Juland Danvers shows, in the report above cited, that, in 1881–82, the length of railways opened in India was, broad gauge, 6,959 miles; narrow gauge, 2,955. The grain-conveying power of these lines (which are shown in this map of India and which are in process of daily growth) is very inadequately represented by the statement made in this document that "The Great Indian Peninsula Railway carried to Bombay in 1881 about 500,000 tons of wheat alone, against 146,600 in 1880; and that the wheat railed to Calcutta amounted to 137,700 tons in 1880, and 304,400 tons in 1881.

Besides this, it was arranged many years ago by the Government of India, in the Public Works Department, that whenever a first-class road should be undertaken, its construction should be such as to admit of its being readily adapted for railway traffic.

I have long believed and argued that a poor and insufficient staple of food afforded throughout vast Indian districts, as among the *dasee* rice-eaters of Lower Bengal and the *kesaree dal* feeders of the Central Provinces, is a cause of disease and life-long starvation to multitudes far larger than those who are swept down by periodic famine. For many years past the Government have perceived the necessity for developing the agricultural resources of India, of improving the staple of grain, and of conserving and extending the forest and tree-growth generally, by which latter means it is to be anticipated that the rainfall will be increased and equalised, reducing the torrid heat of the climate, and fertilising the soil. In a Presidential Address delivered at the annual meeting of the Bengal Social Science Association in 1870, I showed, by statistical evidence, that what Dr. Tytler designated *diarrhœa hectica* is so prevalent a cause of death among the poor of Bengal Proper (it also occurs largely in other parts of India) that I had distinguished it as *Morbus Bengalensis*. I then stated that, having watched this disease closely for more than twenty years, in an extensive field, I was perfectly convinced that it is a gradual failure of the powers of digestion and nutrition, not to be remedied towards the last by any mode of liberal feeding, the patients dying, physiologically, in a state of starvation, however well they may be fed. I urged my distinct conviction that this inability of the system to receive nourishment is mainly due to the slow failure of the nutritive faculty, under a life-long system of feeding upon poor, bad, and indigestible food. I believe that a state of famine which, although almost imperceptible to the ordinary observer, is, on this account, more widely, stealthily, and surely destructive, constantly prevails in Bengal. Born of a famine-stricken race, nursed by a starved mother, working hard upon a food the use of which is slow starvation, the Bengali's life burns out rapidly, as the feeble light does in his poor *chiragh* (oil-lamp), and for the same reason—want of fuel. I believe that I am not original when I say that rice has ruined Bengal as the potato has ruined Ireland. Both countries are endowed by nature with soils of great fertility. In the Middle Ages, Ireland was celebrated for her herds

[2] Report on the Famine in Pooree, by Udoy Chund Dutt, Ind. An. Med. Sc., No. 23, p. 311.

[3] With regard to the great famine in Madras in 1877, my friend, Dr. Lewis, has kindly obtained for me the following data from the official returns:—In 1875, the population of the Madras Presidency was 29,299,586. In the six years 1875–80, excluding 1877, the death-rates from all causes, per 10,000, were 211, 233, ... 278, 189, 157; in the famine year, 1877, they rose to 532.

[4] "On the Climate and Fevers of India."

of cattle, which she exported in abundance to England and other countries. Bengal was, at about the same time, a land of great pastures, upon the rich grass of which the sacred herds fed in such multitudes that they were offered by ten thousands in sacrifices to Kalí.

I then contended, and still believe, that the only valid remedy for the *Morbus Bengalensis*, as well as the only means of enabling the Bengali to withstand the marsh-poison of his country, until he shall have driven out the malaria by bringing his rice swamps into dry cultivation, is *the introduction into Bengal of a* HIGHER STAPLE OF FOOD. I urged and still urge the necessity of mature deliberation and steady action upon the questions—(1) How far it may be possible to widen the pasturage of Bengal, and to extend the cultivation of wheat and legumes, of oil-producing plants, and of fruit trees, especially the mango, throughout the country; and (2) to what extent, in the meantime, the opening of ports along the sea-board, and the extension of railways through the most fertile tracts of India may allow of the importation of wheat into Bengal until the country can produce its own wheat. The poor Bengali gladly eats wheat-meal when he can get it, which is very rarely indeed. Whenever I asked a patient what diet he would prefer, the reply was "*Ek bala roti, ek bala bhat*," one daily portion of wheat-meal chupattees and one of rice. Within the last few days I have been informed that the cultivation of wheat in Upper India promises to enable Hindostan to supply the wants of the United Kingdom. I do not find an indication of such promise in the latest statement of moral and material progress and condition of India; but I do not think that the contemplation of such a result is absolutely Utopian; and I trust that, should Providence vouchsafe to ordain it, the benefit will be extended to the underfed multitudes of Lower Bengal.

Fayrer has shown that the registered deaths from *Fevers* in 1870, were 3,564,035 out of a population of 187,105,833. The very large majority of these fever deaths were due to marsh and jungle influence. Would any other nation have been as little active as we have been in reclaiming, with a view at once to enhance agricultural produce and to maintain public health, the waste and swamp lands of India? Although, as a Briton, I would hold them, as a sanitarian I should not be sorry to cede vast tracts in both India and the United Kingdom to those admirable land-reclaimers, the Dutch. I feel certain that, had they held rule for the last two centuries from Batavia to Cabul, India would have far less fever, and a great deal more wheat, beeves, and sheep than she now possesses. As I have just said, the spread of wheat cultivation ought to tend in some measure to the mitigation of the evil of marsh-fever engendered in irrigated rice fields. I cannot but look upon their want of action in reclaiming land which is the source of the most prevalent and the worst diseases of the country as the weakest point in the Indian sanitary system; but much improvement in this respect can hardly be anticipated as long as the men of the direly threatened city in which we now stand are willing to allow millions of acres of swamp-land to impest every breath of air which reaches them from their east and from their west. I believe that, when cholera next visits London, at least 90 per cent. of the mortality will be due to the fact that the Londoner is as insensible to the evil influence of his marshes (I speak as a Kentish man) as the animal that grazes there!

With regard to *the Prevention of Small-pox*, India has a well-organised and widely-spread system of vaccination. This succeeded a native system of small-pox inoculation, which was probably more widely spread, but of less preventive efficacy. When I first knew Bengal, 75 per cent. of the adult population had been inoculated, and therefore stood secure against small-pox. The excellent report which I have so often cited shows that the total number of vaccinations in India during 1881 was 4,414,342, with a percentage of success to primary operation of from 80 to 98·23.

The Government statement shows that the numbers of *patients treated in the Civil Medical Institutions, Hospitals and Dispensaries* of India were 7,397,095 in 1880, and 6,999,965 in 1881. In these years respectively, the numbers of in-patients were 216,298, and 218,376. In 1881 the cost of maintaining these institutions was 370,586*l*. In that year, 8,288 surgical operations of great importance were performed, with 5,758 recoveries, and 283 deaths. Cataract cases were operated upon in 2,801 persons, 1,803 of whom were restored to good sight. I have noted that, in the dispensary at Seharunpore, no less than 831 stone cases were operated upon in the eighteen years ending July, 1866.[5] There is a point of minor but still of vast importance to which I would just allude, as it at present excites a good deal of attention in charitable circles. Not many years before I went to India in 1848, women in that country trusted to midwives in the hour of their greatest trial; even English ladies were attended by native *daees*, whose ignorance was not so much absolute as horrible. Now, and for many years past, in India, as in Europe, all European ladies are attended by medical men. Within my own time, in England, the midwife has been changed from a professional person into a nurse. Unquestionably, the ignorant and absolutely unteachable *daee* still prevails in millions of native households, and there is on foot a movement to send professionally educated women to India, with a view to the abatement of this evil. Undoubtedly, the intention is prompted by benevolence, but I perceive clearly that, unless it be conducted with great tact and care by highly-qualified and judicious ladies, the measure will prove retrogressive, and will result in more harm than good. I would enquire of those excellent ladies who are earnest in promoting this mission—would they and the majority of their countrywomen advocate the introduction of this system at home? *They* possibly would, but no one else would entertain the idea for a moment—otherwise the project of educating medical women for home work would receive very much greater encouragement than it does at present. In every one of the many years of my Indian experience, the aid of English medical men in these cases was more and more sought for by the natives, and I believe that the number of those natives who would rather allow death to occur than call for the aid of a medical man, is yearly becoming more and more minute. Is it wise to check this advance in humane and saving enlightenment by sending out medical women, however highly-qualified they may be? I do not think that the oldest of the two lying-in hospitals in the city of Madras has been established more than thirty years, and yet, in the year 1882, no fewer than 1,904 confinements, chiefly native, took place in those admirably conducted institutions. Does true humanity demand that such progress should be discountenanced and checked in its present vigorous and most hopeful growth by this latest offspring of mistaken philanthropy?

In briefly considering the questions—*What are the present death-rates in India? How do they compare with English rates? and how far does Indian sanitation appear capable of reducing mortality?* I may as well say one or two words germane to my last observations. I have recently worked out the statistics of 808 married ladies, European and East Indian, who died *from all causes, not merely in child-bed*, between the ages of 14 and 50, in the time of midwife ascendency, up to 1848. Of these ladies 51, or 6·3 per cent., died in child-bed.

[5] Dr. A. Garden.

Dr McClintock[6] gives the death-rate of *parturient* women as one in the 100. In 1882, the death-rates of women in child-bed, in the two Madras lying-in hospitals (where many neglected and ill-managed native women were received in a dying state), were 2·94 and 3·13 per cent.

In 1858 I showed that from the commencement of the present century, the average annual rate of mortality in hospital, from all causes, among the men of H.M. and the H.E.I.C.'s. European Forces, in the Three Presidencies of India, had been

62·45 *in the thousand.*

Surgeon-General Hugh Macpherson found that, during the eight years ending 1853–54, the hospital death-rate of European Troops in the Bengal Presidency was

63·38 *in the thousand.*

During these eight years the total number of deaths *out of hospital* was 1,175—a large proportion, the occurrence of which was explained mainly by the fact that nearly the whole of this period was one of active and trying warfare.

The returns show that, during the last five years, the mortality rates of our European army throughout India, have been :—

1878—21·46
*1879—24·28
*1880—24·85
1881—16·86
1882—12·07

* Excluding troops serving in Afghanistan.

In comparing these rates with those given as prevailing shortly before the Great Mutiny of 1857, it is to be borne in mind that the early rates belong to a period in which the health of the troops suffered greatly in war, and from all the destructive influences attendant upon field service in enemy's country. The hitherto unexampled lightness of the death-rate of 1882, viz., 12·07, is in a large measure attributable to "the remarkable abeyance of cholera among the European troops." We can hardly expect again to have so low a death-rate within the next decennium. Still this exceptionally small Indian death-rate of a single year—12·07 per mille—is seen to be comparatively large when we find it shown, in the Army Medical Department Report for the year 1881, that, during the ten years 1871–80, the death-rate of the whole British Army, at home and abroad, only exceeded it by a fraction, being 12·59 per mille, while the rate in the West Indies was 11·02 ; in the United Kingdom 7·95 ; and in Canada 6·64.

The mortality of the *Native Army of India* is large. In the five years 1877–82, it ranged from 13·38 in 1877, to 37·79 and 41·12. In the last two years, in which there was much trying war service in Afghanistan, the death-rates in the regular native army of Bengal were so high as 53·61 and 53·15 per mille.

The *death-rates in the General Population of India*, as obtained in 1882, under a still admittedly imperfect system of registration, ranged from 13·61 in Assam, to 29·99 North Western Provinces and Oudh. In Bengal the rate was 15·40 ; in the Punjab 27·03 ; in the Central Provinces 29·10 ; in the Madras Presidency 15·7, and in the Bombay Presidency 20·25.

Knowing the people and their modes of living as I do, I cannot but think that these rates are underestimated and that, as the system of registration becomes more accurate, the rates will be found to be considerably higher. Still it is to be borne in mind that these are mainly *rural* rates.

Dr. Beddoe[7] in an article on "Mortality" gives the following *city* mortality rates for 1878—Calcutta 37·7 ; Madras 48·8 ; Bombay 41·8. Nothing that parallels these rates has occurred to me in reading the recent mortality rates of the principal cities of the United Kingdom, one of the highest of which has been 29 per mille.

The death-rates of *European Soldiers' Wives and Children* in India have always been deplorably high. Macpherson shows that, between the years 1838 and 1853, the mean death-rate of women in the three Presidencies was 35·47 per mille.

The Sanitary Commissioner gives the rates between 1875 and 1882 as ranging from 19·78 in 1882, to 29·20 in 1878. My friend Dr. Joseph Ewart who has written[8] with great power on the "Causes of the excessive mortality among the women and children of the European soldiers serving in India," says that, through the kindness of Surgeon-General Marston, he has been placed in a position to give, side by side, the death-rates of the women belonging to the European troops serving in India, and in the United Kingdom ; thus, one of the lowest Indian death-rates, that for 1882, being 19·78, the home rates for the four years 1877–80 were only 8·59, 8·65, 7·75, and 8·37.

The *Children's* death-rates, as given by the Sanitary Commissioner, are still more appallingly high. During the last eight years they ranged from 50·26 in 1882, to 79·73 in 1878. From the high authority cited above, Dr. Joseph Ewart shows that, in the four years 1877–80, the death-rates of soldiers' children in the United Kingdom were 24·08, 28·41, 26·86, and 30·28.

The outcome of this dreary array of figures, to which you have listened with so much forbearing patience and courtesy, but which you will find to be of the most vital importance and interest when you come to study them in print, is that—although wherever we are able to draw an accurate statistical parallel, Indian death-rates are now generally lighter than they were in the evil old times of ill-built and over-crowded barracks and hospitals, battle, famine, and long campaigns, bleeding, calomel and ignorant midwives—English men, women and children are at present subject to far higher death-rates in India than they are in any other large division of the British Empire.

The following questions deserve the deepest consideration from sanitarians and legislators.

Why should the last decennial death-rate of our European Soldiers in India—19·37—so vastly exceed that of their brethren in the West Indies, 11·02, even when it is admitted that the pestilential influences of the West Indies are less potent than those of the East.

Why should the mortality of Soldiers' Wives in India be at present, to use Dr. Joseph Ewart's words "about *three* times as heavy as in England?" We may well exclaim with him "the discrepancy is as enormous as it is appalling!"

Still again, why should the death-rate among Soldiers' Children in India, in the four years 1877–80, exceed, as Ewart has shown, the death-rate of barrack children in the United Kingdom by 26·25, 51·32, 50·20, and 30·28 per mille?

In placing these facts in the form of questions, I do not mean to leave it to be inferred that the causes of these terrible discrepancies are not to a considerable extent recognised ; or that the Government and their medical officers are not devoting the most earnest interest and very great ability to the work of amelioration, which recent statistics show is generally advancing. My plain object is to offer you a fair insight into the present state of public health in India, that you may compare it—by no means in a spirit of exulting self-sufficiency—with the better, but still vastly improvable, condition of living which is vouchsafed to us at home.

[6] As cited by Dr. Playfair.
[7] Quain's Dictionary.

[8] Transactions of the Epidemiological Society of London, N.S., Vol. ii., p. 47.

ON A CASE OF PERI-NEPHRITIC ABSCESS CURED BY DRAINAGE.

By R. CLEMENT LUCAS, B.S, Lond., F.R.C.S.

Surgeon to the Evelina Hospital for Children, and Senior Assistant Surgeon to Guy's Hospital; Corresponding Member of the Société de Chirurgie of Paris.

I am indebted to my colleague, Dr. Goodhart, for permission to publish the following case, which was admitted into the Evelina Hospital under his care, and to Mr. Milligan, the registrar, for the care he took in reporting it. To our excellent House-Surgeon, Dr. Newnham, much of the success of the case is due.

The case is of interest from the rapidity with which the large abscess cavity closed after free drainage was established, and the great relief at once obtained by opening it. It illustrates also the value of cutting down through the muscles in the loin to find the abscess instead of waiting for it to make its way to the surface. Such procrastination may allow the abscess to form a communication with the colon, or to burst into the peritonæal cavity, complications which may almost certainly be avoided by an early operation.

A. M., aged 2, was admitted into the Evelina Hospital on February 1st, 1884. The parents were living and healthy, and there were two other children also well.

Previous history.—The child had had scarlet fever and whooping cough, but he had not suffered from measles. According to the mother, he was a strong and healthy boy up to the 9th of November, 1883, when he was knocked down by a boy and fell on the back of his head. Ever since that time he has been ailing. One day he would take his food and appear well, the next he would be fretful and his appetite would be bad. He has had no discharge from his ears.

History of present illness.—About a fortnight ago the child seemed drowsy, complained of pain when touched, and could not take his food. The mother took him to a medical man, but at the end of a week the child appearing no better, she brought him among the out-patients at the Evelina Hospital. He has not been kept in bed, but has sat in a chair by the fire. He has been very restless and thirsty at night, has vomited twice, and his bowels have been constipated.

Condition on admission.—A fairly well nourished child lying on its back, with its legs drawn up towards its abdomen. Lips of a good colour free from sordes. No dilatation of the alæ nasi. A slight flush on both cheeks. Skin warm and moist. The child appears lethargic and takes little notice of being examined. No swelling of any joint. No œdema anywhere. Temperature 100·4.° Tongue moist. The abdomen is full but not tender on pressure. Some gurgling over the right iliac region and also just above the umbilicus. Passing up in a curve from the right iliac region to above the umbilicus is felt, a firm band whose concavity is internal, probably the colon displaced forwards and distended with fæces. Over the right lumbar region there is more resistance than over the left. There is no increase in hepatic or splenic dulness. The heart sounds are normal. Pulse 120°, regular, soft, and rather weak. Chest well formed and resonant. Respiration thoracic, 39 per minute.

February 2nd.—Legs still drawn up. Pulse 126°. Very fretful. Resistance still felt on pressing on the right side of the abdomen.

February 3rd.—The case was examined by Dr. Goodhart. The bowels have acted freely and removed the band previously described (no doubt due to fæcal accumulation in the colon), and now, deeply seated in the right loin, can be felt a large firm mass running up under the ribs and bulging into the loin. It is a localised swelling accompanied by faint redness of the skin. The mass is tender on deep pressure, and the child cries when it is manipulated. There is no tenderness of the spine and no extension of the swelling into the psoas region. The left base is dull from the eighth rib downwards, and there is a coarse inspiratory murmur here of abnormal quality, but no tubular breathing. There is no apparent displacement of the heart.

February 4th.—The child is lying on its left side with legs drawn up. The swelling in the right lumbar region is now raised above the general level of the abdominal wall, and is easily seen and felt. Fluctuation is easily obtained all over the right side of the abdomen extending to the median line. The muscles are kept rigid over the tumour, and the boy cries when he is examined, the swelling at the hinder part being especially tender. There is no superficial redness. As the urine is passed into the bed very little could be collected, and it was questionable whether this contained a trace of albumen.

February 5th.—The tumour remains the same. There is no redness of the skin, and it is not very painful when examined. There is loss of resonance all over the right lumbar region, the note changing at a line drawn vertically through the anterior superior spine; and one inch further back towards the spine it is quite dull. The abdomen is full and rather distended but the right side is not rigid to-day. Urine without sediment; no albumen or sugar. There appears to be no loss of resonance of the left base now.

February 6th.—The condition of the tumour is the same as yesterday. The right thigh is flexed on the abdomen. Mr. Lucas examined the tumour and determined to operate. The patient having been placed under chloroform and the carbolic spray being directed over the lumbar region, Mr. Lucas made an incision, commencing about an inch and a half from the spine and running forward parallel with the last rib. The sac of an abscess was reached after cutting through the abdominal muscles, and on being opened, a large quantity of thick, curdy, but not offensive, pus escaped from the opening. The wound was then enlarged vertically so that Mr. Lucas could introduce his fingers and explore the relations of the abscess cavity. It was found that the abscess lay between the quadratus lumborum muscle and the kidney; this organ being displaced forwards and having posteriorly a somewhat irregular surface. The spine was felt with the finger, but no evidence of disease in it was discovered. The abscess cavity extended downwards towards the ilium, but its origin could not be traced to disease of this bone, which was covered with periosteum and muscle. Much thick pyogenic membrane was extracted by forceps from the cavity of the abscess, which was afterwards syringed out with carbolic lotion. A large drainage tube was inserted and the wound dressed antiseptically.

February 7th.—There is no albumen or blood in the urine. The boy is sitting up in bed and appears to be in no pain. Pulse 120°. The wound was dressed, as the discharge had soaked through the dressings.

February 8th.—The temperature since the operation has not risen above 99·2°, and the boy seems in no pain. He is eating and sleeping well. Pulse 132°.

February 15th.—Nothing has occurred since the 8th worthy of note. His progress has been uninterruptedly good. There is no pain and the discharge is small in amount. The drainage tube was removed to-day.

February 19th.—Still going on well. He eats and sleeps well, and his bowels are regular. Wound dressed every other day.

February 25th.—Dressed yesterday. Wound closing. Very little discharge. The boy's health is good.

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March 4th.—Wound practically healed. He is up to-day.

March 6th.—He is running about the ward.

March 15th.—Discharged quite cured.

The boy was kept under observation, and on July 8th, was thoroughly examined. He was then fat and in perfect health. There was no evidence whatever of spinal disease. His back was not tender, and bent with ease into a rounded curve. There was no thickening left on the right side of his abdomen, and save the scar in the loin, nothing to point to his previous illness.

Remarks.—Difficult as it is to obtain satisfactory histories of disease in children, the peri-nephritic abscess in this case was, I have little doubt, correctly traced to an injury caused by another boy throwing the little patient down on his back. The child had previously suffered from scarlet fever and whooping cough, and his tissues were probably in a condition little able to resist injury, or to bring about repair. The injury happened about three months before he came under observation, and it had been noticed that he had been ailing, and often fretful, and that he had suffered from capricious appetite from the time of the accident. It is not improbable that when thrown down he may have fallen on some stone or other body which damaged his loin. It is often quite impossible to determine what injuries a child may have received after a fall, and the injury to the head appears in this case to have obscured any other. On the other hand, a history of injury may be deceptive, and lead one to suspect a peri-nephritic abscess when the tumour is purely renal. Thus, in the case of a patient from whom I removed a renal calculus last November, there was a history of his having been in a railway accident in the January previous, and a more definite history of his having fallen across a groin at the seaside in the month of July. He had retraction of the thigh, and a tumour in the lumbar region, whilst his urine was perfectly normal. Such a history, apart from other symptoms, would lead one to suspect peri-nephritic abscess rather than nephritic, but the tumour proved to be renal, and excited by an impacted stone. A history of injury must not, therefore, be allowed to obscure the possibility of other causes ; still, a definite history of a contusion in the loin would incline one to the diagnosis of a peri-nephritic abscess. In a case which came under my observation last year, there was a history of a kick by a horse under the ribs some months before, and I have little doubt that the abscess was attributable to that injury ; so, in the present case, a definite injury dates the onset of symptoms. It may be interesting to consider how far the kidney itself is responsible for the abscess in these cases. In other words, what relation does injury to the renal texture bear to the frequency of abscess after a contusion of the loin? The loose fat surrounding the kidney at first sight suggests a tissue that might be very prone to diffuse suppuration, while its depth from the surface is such as to give it a general protection. The liability of this fatty envelope to suppuration would follow the law as to suppuration elsewhere, in so far as it would increase after fevers or long depressing illnesses. Some suspicion of danger of exciting suppuration in this tissue was doubtless one of the notions which deterred surgeons till recently from operating upon the kidney. How far this view might be justified if old methods of dressing were employed I have no evidence to offer, but under strict antiseptic precautions it is certainly not a dangerous tissue to operate through, and large wounds made to introduce the hand for exploration of the kidney will generally heal by first intention. My own experience now extends to nine cases in which I have explored or performed some operation upon the kidney, and in no case has there been suppuration in this tissue of a kind to give me anxiety. I am therefore inclined to acquit the fatty envelope of any greater tendency to suppuration than exists in areolar tissue elsewhere. Bruising of the loin may excite deep-seated abscess here just as the cellular tissue elsewhere is excited to suppurate when injured, a result which is determined as much by the general health and constitution of the patient as by the severity of the injury.

Bruising of the kidney may be a complication of contusion of the loin or abdomen, and is usually indicated by a certain amount of blood in the urine. Such a case I was called to see at Guy's Hospital on July 9th, 1884. A sailor had fallen a distance of 25 feet into a ship's hold, striking against a beam in his descent. He was admitted in a state of great collapse, complaining of great pain in the abdomen, with a scalp wound on the left temple accompanied with contusion, and a fracture of the left radius. His urine was drawn off, and found to be slightly coloured with blood. The amount of blood, however, was not such as to indicate a severe lesion of the kidney, whereas his collapse and central abdominal pain were intense. He died seventeen hours after the injury from ruptured intestine. After death, a considerable amount of blood was found extravasated into the cellular tissue around the left kidney, and the cortex of that organ was bruised and ecchymosed, but there was no rupture of its surface. Had the man escaped the rupture of the intestine, would such an injury have excited an abscess in his lumbar region? I am inclined to think that in a healthy man, with good organs, such an injury is not frequently followed by suppuration, and with sufficient rest a good result may be anticipated. Nor when the cortex of the kidney is ruptured do I find, after an examination of the records of a great many cases, that suppuration is a frequent complication ; and it is, I believe, only when the rupture extends into the pelvis, or one of its calyces, the ill results of extravasated urine are likely to follow. Should suppuration follow, I have no doubt whatever that the earlier a free exit is established for the evacuation of the pus, the better for the patient ; and my principal object in publishing this case is to point out the safety with which this may be effected through the loin under antiseptic treatment. It will be noted that the highest temperature recorded after the operation was 99·2° ; the drainage-tube was removed on the ninth day, and the wound was closed within a month.

SOME OBSERVATIONS ON ENDEMIC FEVERS IN INDIA.

By Surgeon J. PEDLOW, M.D.
Army Medical Department.

(*Continued from page* 77.)

Now, coming to the year 1883, with the exception of a mild case of remittent fever admitted on the 16th January, in which the temperature was normal morning and evening on the thirteenth day, one case of febricula in February, and a second in March, there was no run of cases until April. In that month six cases were admitted and six in May. They to a great extent took the place of the simple continued and remittent fevers of the previous season, and many of them were indistinguishable from them in character. Some of them assumed gradually a more severe type until they resembled ill-defined enteric. Two more cases of this fever in June and two in July were also admitted. The first case of enteric fever in this year was admitted on 25th April, and the last on the 7th

November. They were distributed as follows: three in April, three in May, one in June, six in July, seven in August, three in September, and one very mild case in November. The only fatal cases this year were enteric; two died in May, two in July, two in August, and one in September. With regard to remittent fever, in addition to the case in January, there was one in July, two in August, and two in September. In this last month also a case of remittent was admitted with a sharp relapse which had been discharged ten days previously. There were only two cases of simple continued fever, both in April, and the last case of fever for this year, one of febricula, very mild in character, was admitted on the 11th December. It will thus be seen from this statement that in both years the period of greatest prevalence of simple continued, remittent and febricula was immediately before, and during the enteric fever period. A run of such cases foretold unerringly the arrival of the fatal form. It is also apparent that in 1883, enteric fever to some extent took the place of remittent. This was simply due to the fact, that if at any time during the course of a case there was evidence of intestinal complications, it was returned as enteric. The high mortality of 1882, compared with 1883, is thus partly explained. *Under any circumstances, it is highly probable that some climatic condition, showing its existence and growth by mild and severe cases of undefined fever, gradually attained its maximum virulence during the prevalence of the fatal enteric cases and attacked chiefly young soldiers under 26 years of age.*

With regard to ague it may be mentioned that twenty-seven cases were admitted in 1882, and about forty-three in 1883. They were pretty equally distributed throughout the year, except in January, February, and March, 1882, which were below the average of the other months. Seasoned soldiers who have periodic attacks of ague, prefer a dose of quinine to being taken into hospital, and consequently all the cases do not appear in the returns.

Coming to an analysis of the cases returned as enteric, I find that seven cases of the thirty-four had obstinate constipation throughout, and four, constipation followed by mild bilious diarrhœa of a few days' duration. Delirium was often absent in the mild cases. In all the severe cases which proved fatal at an early period the motions were very bilious at the outset and often until death. They were a bright green or yellow, very frothy, and often passed with violence. The periods under treatment and the character of the temperature varied much. In the cases which recovered, three were in hospital 72, 73, and 77 days, seven cases 61 to 69 days, six cases 40 to 46 days, three cases 32, 37, and 38 days, one case 51 days, and one case in which there were two relapses 128 days. As regards the temperature, dating from the estimated day of illness, usually one or two days before admission, in two cases it was normal morning and evening on or about the 22nd day, in two on the 23rd day, in two on the 27th day, in one on the 32nd day, two on the 36th and 40th days, and in the others on the 9th, 12th, 15th, 16th, 17th, 19th, 24th, 25th, 28th, 38th, 47th, and 99th day. With regard to symptoms they will be treated more in detail when the individual cases are recorded, but many of the fatal ones and those in which the temperature was high during the first week, differed much from typical cases. In many of the former, the patients stated on admission that the attack was sudden, and ushered in by severe pain in the head, and often by intense giddiness, with vomiting of green bilious matter; occasionally these symptoms passed away, and the patient felt better until the next day when they returned. With regard to those cases with normal temperatures under twenty days, four of them had high fever and persistent headache, diarrhœa with bilious motions and abdominal tenderness, one of these also had delirium at night and urinary retention; the fifth case had enteric motions, and the sixth, constipation throughout, headache followed by delirium and mild bronchitis, and in his case convalescence was much retarded by crops of boils.

The following is a record of one of the mildest of these cases. Private E. M., age 22, was detained in hospital on the 22nd August, and admitted on the following day. He complained of severe headache and pain in the back; his face was much flushed, his skin dry and hot, and his eyes suffused. There was some pain and gurgling in right iliac fossa, and the bowels were moved six times on the day of admission, the motions being bilious and frothy. He said he had had all these symptoms three days. On the 24th, his condition was unchanged, his tongue was thickly furred. He stated he had passed a restless night. There was some abdominal tenderness on pressure. On the following day the motions had the characters of those of enteric fever. There was a slight cough, and a few sibilant rales were heard over chest. There was no delirium, and the headache was less. On the 26th there was some improvement; tongue was somewhat cleaner. His condition from that time improved, and he was discharged on the 38th day of illness.

Estimated day of illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
4th	101·6	104
5th	101·8	103·4
6th	101·4	102·8
7th	100·4	102·4
8th	99·8	102·2
9th	99·6	103
10th	98	98·6
11th	98	99·2

Now this case much resembled some others in which, after the temperature had reached the normal, and symptoms of improvement were setting in, some unknown cause brought about a relapse. These relapses actually occurred in six cases. In two of these the temperature had been normal morning and evening for some days; in two normal only in the morning; in one normal morning and evening for one day, having been normal the morning of the previous day, and in the remaining case the patient had actually been discharged from the hospital. In five cases the original attack was mild, and of a doubtful nature as regards the enteric complications. The sixth case was more severe, and had two distinct relapses. It was of much interest, as showing that in a pretty sharp original attack abdominal pain and tenderness, characteristic stools, and severe delirium may be absent, and that in case of a relapse a slight increase in its severity may be followed by the appearance of these symptoms. In the absence of these in the original attack, the diagnosis naturally lies between simple continued, and remittent, so that this and some of the other relapses actually show the identity of these fevers in these cases, at least in this station. The following is a summary of this case. The patient, a boy, aged 15, was admitted to hospital on the 31st July, 1883, with a sharp attack of fever. He stated that two days previously he was attacked with giddiness and sickness, which subsided when he lay down. He had also aching pains in the limbs. The following day he had headache, and the sickness and giddy feeling returned on his rising up. On admission, his face was flushed, and his tongue covered with a white fur; his bowels acted three times in the 24 hours, and the motions were bilious. There was no abdominal pain or fulness, and no tenderness on pressure. He was restless at night. Diarrhœa

ceased on the fourth day of illness, and on the sixth day the motions were normal; headache also disappeared. He had very slight delirium on the seventh night, which subsided in a few days; tongue was then noted as brown in centre, and red at the sides. The bowels were constipated. Some improvement was evident on the twelfth day of illness; the tongue commenced to clean, and appetite improved. This improvement slowly continued, and his temperature was normal morning and evening on the twenty-eighth day of illness. The bowels were still obstinately constipated, and he frequently required enemata of soap and water. During the seven days preceding the second attack he was apparently doing well, and difficulty was experienced in keeping him in bed. On the afternoon of the thirty-fifth day of illness, he was seized with severe headache and vomiting, and his temperature, which was normal in the morning, rose suddenly in the evening to 102°. Bronchitic symptoms set in two days after, and delirium was present on the fortieth night. The bowels were constipated, but there was considerable abdominal tenderness. As the temperature at 4 o'clock p.m. rose high, and as a higher rise was anticipated, he was put in a bath daily, at a temperature of 85°, from the fortieth to the forty-fifth day, both inclusive, until the temperature fell to 99° or 100° in the mouth. This fall usually required half-an-hour. Characteristic diarrhœa set in on the forty-first day, and continued for eight days, and there was much abdominal pain and tenderness. On the forty-sixth day there was evident improvement, and his tongue commenced to clean; the stools lost their enteric character about the fiftieth day, and the temperature again reached the normal on the fifty-seventh day, and continued so for ten days. On the sixty-sixth day, when almost well, and sitting up in bed, there was a rise in the evening of over two degrees. The third attack came on gradually with complete morning remissions and evening exacerbations; there was no headache, and the appetite was good for some days, the fever became more continued on the seventy-second day, and the tongue furred and white. On the seventy-third day his abdomen was tumid and painful on pressure, and his skin was hot and dry, temperature at 10 o'clock a.m. was 104·8°, and he was put in bath at a temperature of 88° for three-quarters of an hour. Before bath, temperature 104·8°, pulse 132, respiration 18. After bath, temperature 101·4°, pulse, 130, respiration 16. Half-an-hour after it rose to 102·9°. The bath was repeated same evening at 5 o'clock; before bath, temperature 105°, pulse 128; after bath, temperature 102°, pulse 116. Next morning the motions were enteric in character; bath was again repeated, morning and evening, with the same result. He was occasionally delirious throughout the day. On the seventy-fifth day his temperature fell a little; there was then great abdominal tenderness and tumidity; the patient lay with his legs drawn up. Respiration was very hurried, and the motions, which were very fœtid, were passed in bed; teeth were covered with sordes, tongue was dry and dark brown; sibilant rales were heard over the lungs, and the base of both was also congested; urine was dark-coloured, but contained no albumen. There was some pain over kidneys. These symptoms continued with very little change from the seventy-fifth to the seventy-eighth day. There was a little delirium at night, but the patient lay in an apathetic condition, and disliked being disturbed. From the last date there was some improvement; abdominal pain and tenderness gradually subsided, and the stools lost their enteric character. The temperature fell to normal on the ninety-ninth day. Convalescence was rapid, and he was discharged hospital on the 128th day.

The temperature in this case was peculiar in the first attack; it only rose once above 103°, and varied between 101° and 103° until the fourteenth day of illness. After being normal from the twenty-eighth until the thirty-fourth day, the relapse showed a very sudden rise and the range was higher. In the third attack, on the contrary, the invasion was gradual, the temperature being normal in the morning for three days, and 101° and 102° in the evenings. Within the next four days it had run as high as 105° in the afternoons, and a higher temperature was prevented by baths.

Now the following case, in which there was a relapse, differed much from the one just recorded. In this one a mild attack of what, in the absence of any complication, was considered simple continued fever, was followed by a sharp attack of so-called enteric fever, in which there was abdominal pain and tenderness and bronchitis Private F., age 21, service in India two years and eight months, was detained in hospital on the 25th August, 1883, and admitted the following day. He complained of severe pains in the forehead and back. His face was flushed, and his eyes suffused, tongue was covered with a moist white fur, bowels were constipated. Pain disappeared from the head in four days, and his temperature fell to normal on the morning of the seventh day; tongue was then cleaning, and improvement was evident. On the fourteenth day temperature was normal morning and evening, and continued so until the twenty-seventh day, when there was a morning rise of 2·2°. His face was then flushed, and his tongue was moist and clean; headache returned that day, and was very severe; tongue became furred and white, and abdominal pain and tenderness with bronchitis followed in the next three days. His throat was congested, and pain was complained of over the spleen. His intellect was confused, and he answered questions apathetically, and with an effort. He continued in this condition for six days, the tongue becoming quite parched, and the temperature reaching 103° every evening. On the thirty-fifth day he looked somewhat better, and his tongue became moister. His temperature fell on this and the following day to 100°. His bowels were constipated throughout each attack. There was much debility afterwards, and he was not discharged from the hospital until the 72nd day. Urine was examined twice; it contained no albumen.

Estimated day of Illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
2nd	101·4	102
3rd	101	102
4th	100	103·2
5th	100	101
6th	99·4	100·2
7th	98·4	99·6

The temperature from the 27th day was as below—

Estimated day of Illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
27th	100·6	101
28th	100·6	103·6
29th	100·8	102·8
30th	101	102·8
31st	101	103
32nd	101·2	102·6
33rd	101·6	103
34th	101	103·6
35th	101	101·2
36th	100	101·2
37th	99·2	102·8
38th	99·6	101·6
39th	99	101·8
40th	normal	

Now a consideration of the characters of both these cases, I think, will show that these renewed attacks occurring when the patients were almost convalescent were *bonâ fide* relapses, but with characteristic symptoms added in proportion to their severity. The original attack in the first case was considered remittent in type, and in the second case, as stated before, febricula, or simple continued fever. The relapses, however, with their visceral complications, but one with and the second without diarrhœa, necessitated a change of diagnosis to enteric. *Each attack almost exactly represents the different types of fever met with here, and the varying characters of the same in different cases.*

In the next case, the original attack was mild and defervescence incomplete. The patient was admitted on the 15th July, 1883, with slight fever which lasted for six days. On the seventh and eighth days the temperature was normal in the morning, and on the tenth, eleventh, and twelfth days varied between that and 99°. The case appeared to be one of febricula. On the fourteenth day the temperature rose to 100° in morning and 103·2° at night, and in the following ten days varied between 102° and 104·2° at night. It then slowly fell, reaching the normal on the thirty-sixth day. Throughout, there was no delirium or abdominal pain. There was sharp headache in the relapse and obstinate constipation, and convalescence was much delayed by œdema of limbs and debility.

In the following case a well marked attack of fever, with visceral complications, followed a mild original attack. Private S., aged 23, service in India eight months, was admitted to hospital on the 22nd October, 1882, suffering from severe headache, fever, and diarrhœa, which he stated had gone on for seven days. This diarrhœa continued for three days after admission, the bowels on the third day being moved eight times. The motions were bilious. His tongue, however, cleaned, and the temperature reached the normal on the seventh day in hospital, or thirteenth day of illness. His condition then was apparently improving. Temperature continued normal in the morning for three days. On the fifteenth day of illness, symptoms of a relapse appeared, his tongue became furred and severe headache again set in. The following day, tongue became quite dry and rough; it was red, and had lost the white fur; the diarrhœa also was severe. On the nineteenth day, the stools were enteric in character. His throat also was much congested and very painful. Delirium set in on twentieth day and his lips became quite dry and brown, tongue was fissured and shrunken looking, and teeth covered with sordes. On the twenty-second day the diarrhœa subsided and the tongue lost its shrunken appearance; the delirium disappeared on the twenty-fourth day, but the patient lay in an apathetic condition, and spoke with an effort; bowels were then constipated. He commenced to improve slowly from that date, and was discharged from the hospital on the 28th December. The temperature in this case was peculiar, on the 16th, 17th, 18th, and 19th day it reached its highest point between three and four p.m. It was 104·4°, 104·2°, 104°, and 104·2°, on each of these days respectively. About that time many other cases were also similarly irregular as regards the temperature.

In the following case the diagnosis was somewhat doubtful, and the case irregular from the outset. It had a fatal issue. Private S., age 24, was admitted to hospital on the 17th of August, 1883, complaining of debility and looseness of the bowels. Diarrhœa he said had existed for two or three days previously. There was some abdominal pain; he had no headache or pain in back or limbs, face was not flushed. During the first four days in hospital, the bowels were moved six or eight times a day, the motions being dark-coloured, and very offensive, but passed without pain or straining. On the eighth day of illness his temperature fell to normal morning and evening, and beyond the continuance of slight diarrhœa he was much improved. This improvement continued for three days and his tongue became cleaner. On the evening of the twelfth day, temperature rose to 102·2° and the diarrhœa became severe; his tongue was furred and irritable. He continued without improvement until the twenty-second day, when his condition seemed somewhat better, and his appetite improved. On the thirty-seventh day of his illness, the diarrhœa returned, the stools became dark-coloured and very fœtid; delirium was present for the first time that night. He sank shortly afterwards into a state of collapse, and died in that condition on the forty-second day of total illness. He had two admissions for dysentery during his four months' service in India. On *post-mortem* examination there was passive congestion of brain membranes and increase of cerebro-spinal fluid. The respiratory organs and the liver were healthy, spleen was atrophied. Small intestines were healthy until within eight or nine inches of the ileo-cæcal valve, there the mucous membrane was congested; some inches further, it was thickened and a few patches of mucous membrane were eroded as if cleanly dissected off. There was no enlargement or ulceration of Peyer's patches or glands, and no apparent traces of them. The large intestines were very much congested as far as the rectum, which was healthy. Numerous patches of erosion in the mucous membrane of the ascending colon were found and the bowel was much inflamed there. The mesenteric glands were enlarged. The kidneys were healthy. This case had the characteristic morning remissions and evening exacerbations of a mild typhoid case. It is probable that the previous attacks of dysentery had destroyed the solitary and agminated glands.

(*To be continued.*)

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GOVERNMENT CIVIL HOSPITAL, POINT DE GALLE, CEYLON.

CASE OF GUNSHOT WOUND OF THE COLON, AND BASE OF LEFT LUNG, WITH RECOVERY.

By. C. J. KRIEKENBECK, M.B., M.C., Edin.
Medical Officer in Charge.

Fred. L., a boy of 16, on his way out to China, was accidentally shot by the second steward of the ss. *Glencoe*, whilst carelessly handling an army revolver. He (the steward) had taken the revolver out of a drawer, not knowing it was loaded, and stated afterwards, that before he knew anything, he heard the report, felt the bullet go through the palm of his own left hand, saw the boy L., who was standing about three feet in front of him at the time, stagger, and cry out he was wounded. On being examined by the surgeon of the ship, the steward was found to have a wound going through the palm of the left hand, splintering the metacarpal bone of the middle finger.

The lad L. had a wound on the left hypochondriac region, the bullet going upwards and outwards, wounding the edge of the left lung, and lodging beneath the

skin of the back, from whence it was cut out by the ship's surgeon. All this happened on the 10th February, in the Red Sea, and nine days after, the surgeon wishing to have a consultation with a *confrère* on shore, the steamer put in at this port, and the cases were seen on board by my friend Surgeon Lloyd, of the A.M.D., stationed here. He advised and superintended their immediate removal to this hospital, where I took charge of them.

The following is a condensed statement from notes taken at the time by my house-surgeon, and my own entries day by day :—

Frederic L., admitted 1.30 p.m., 19th February, 1884. Has a hectic flush ; temperature 99·6°; pulse 148 ; respiration 54 ; great dyspnœa. Lies flat on his back. Breathing short and hurried. Emphysema all over left side of chest, the crackling under the fingers extending to Poupart's ligament on that side. Wound of entrance three inches to the left of the mesial line, between the cartilages of the eighth and ninth ribs, sucking in air with every inspiration. The wound of exit was closed up, and there was a strong fæcal odour about him.

Bowels not moved for several days. He was put to bed and the wounds dressed under the carbolic spray, with boracic acid and iodoform lint. Allowed brandy and ice, with quinine and opium pills, chicken broth, bread and milk, and beef-tea.

February 20th.—States he slept fairly well, and feels much easier. Bowels not moved. Takes nourishment well. Temperature 101°. Breathes easier.

February 21st.—In *statu quo*. Temperature 100·4°. To have a castor oil enema.

February 22nd.—Lies on his back still. Fæcal odour very marked in spite of carbolic spray and antiseptic dressings. No passage of fæces per anum. Enema alone came away. This made me suspect that not only had the lung been injured, but that some portion of the intestine was also involved, and that from the position and direction of the wound, and the circumstances stated above, the portion wounded was evidently the end of the transverse, or the upper portion of the descending colon. *This had never struck any of us before.*

I accordingly removed all dressings, and under the carbolic spray had him gently turned on to his left side, when there rushed out 64 ozs. of dark-coloured, foul-smelling fluid fæces, from the wound of entrance. The odour was most horrible in spite of the carbolic spray and the sea breeze blowing through the eight open windows and three doors of the large ward upstairs. He was then placed again on his back, and four syringes full of weak carbolic lotion (1 to 120) syringed in, then turned again on his left side to allow it to run out, and this was done till the lotion ran out clear, twice a day ; the wound was covered over then with lint squeezed out of boracic acid solution, and iodoform sprinkled between two folds. Under this treatment, the stuff that escaped every morning and evening, when he was turned on to his side, lost its marked fæcal odour, being, in fact, now nothing more than the digested food, &c., voided through this novel artificial anus, just before it could go lower down the gut, and assume the usual fæcal odour. The temperature, pulse, and respiration, became normal, the emphysema began to disappear gradually, and the wound of entrance contract and heal. I should have stated before that the wound of exit had closed and healed up a day or two after the bullet had been extracted, and before patient came into hospital.

He continued to do well, and now stated that "he felt inclined to go to stool, but couldn't." A simple castor oil enema was given him, bringing away a little fæcal matter in small lumps.

After this he began to pass dark-coloured stools per anum, and the escape of fæcal matter through the wound grew less every day, the wound itself contracting and healing rapidly ; *too* rapidly in fact, as the sequel showed ! On the 5th of March, seventeen days after admission, nothing came through the wound, which was now closed up by granulations. In 24 hours, however, his temperature, normal the previous days, went up at once to 103.6° ; he complained of "a feeling of tightness" on the left side, and pain. Under treatment he felt easier, but soon after commenced to retch. This forced out through the wound a small quantity of the same stuff he used to pass before. Suspecting what had occurred, I gently enlarged the opening and inserted a drainage tube, the carbolic spray playing all the time, and on turning him on to his left side, 24 ozs. of fluid, excrementitious matter, similar to that passed before, came away. Weak carbolic lotion was syringed in again till it ran out clear, and the drainage tube left in the wound, which was dressed as before with boracic acid and iodoform. The temperature went down to normal at once, the discharge through the drainage tube became less every day, and he passed his stools in the natural way. The wound commenced to contract and push out the drainage tube, and on the 15th March the last bit of tube was forced out. He had been rapidly gaining strength, and was found one day trying to stand up. By the 18th March he was able to walk to his chair, the wound being completely healed. By the 30th March he was quite well, and fit to leave hospital, but had to wait for a steamer to take him on to Hankow. On the 23rd April, an opportunity offering, he left for that port quite strong, and in great spirits.

In conclusion I may state that the steward had a very bad hand when admitted. The left hand and upper arm very much swollen and erysipelatous ; temperature 101°, and edges of wound sloughing. This case was also always dressed, under the carbolic spray, with boracic acid and iodoform, and quinine and opium pills internally. In a few days the pain was very much less, he slept well, the swelling and erysipelas disappeared, the temperature (according to the chart) became normal, and by the 15th March the wounds had healed. The middle finger was stiff and he could not bend it well, but with passive motion, in time, I am sure he will have his hand all right again. He also left on the 23rd April with his companion in misfortune, to rejoin his steamer in China.

Medical Times and Gazette.

SATURDAY, JULY 26, 1884.

Our Paris Correspondent writes :—The French are said to be fond of change, and apt to promote revolutions. It must, however, be acknowledged that a full compensation exists on the other side, and that we frequently meet with more than Celtic obstinacy in our great men. Dr. Fauvel has afforded ample proof of this. At the last meeting of the Academy of Medicine, a letter from the celebrated Inspector of Public Health was read, in which he distinctly states it as his opinion that the cholera at Toulon and Marseilles is a mere local outbreak, which will die out on the spot where it was born, without extending to other localities. Dr. Fauvel adds that as soon as his health is restored, he will return to his post and stand up in defence of his views, which remain unchanged, in spite of all that has been said to the contrary. Not only

does the Inspector-General resist the power of argument, but he goes straight against the testimony of facts. Cases of cholera have broken out at Arles, where ten fatal cases occurred in a single day; at Nimes, at Lyons, at Aix, and in various other southern localities. The number of deaths has slightly diminished at Marseilles, while it has certainly increased at Toulon, the highest figure on record being 49 deaths in a single day. A certain number of medical students have been sent to the afflicted city by the Faculty of Montpellier; they were accompanied by two of their professors. The meritorious devotion of these gentlemen is enhanced by the fact that several physicians, students, sisters, and attendants have already fallen victims to the epidemic. The Mayor of Toulon is still in a state of great prostration, but his life is said to be out of danger. He was (very properly) made a Knight of the Legion of Honour during the Ministerial visit. M. Alazard, a town councillor, after most praiseworthy exertions in favour of the sick, fell a victim to the epidemic. His widow and children retired to their country seat at La Cran, but the Mayor of the locality refused to receive them, and prevented them from entering their own house. His conduct has met with universal disapprobation, except in the south where the terror of the epidemic seems to have obliterated all feelings of justice. The prescriptions of the Board of Health are openly violated at Toulon, where choleraic dejections are thrown, as before, into the open streets, or kept in the houses without being disinfected. While this state of things persists, it seems difficult to predict the close of the epidemic.

According to the statement made by the Director-General of Public Assistance at Paris, no cases of true cholera have been observed in hospital, although diarrhœa is frequent enough. Some fatal cases of cholera nostras have occurred in the town, but as they are really limited, and do not spread, they may be referred to the ordinary state of public health during the summer months in Paris. It is well known, of course, that every year, in July and August, some cases of sporadic cholera break out in this city.

Two doctors of Marseilles have succeeded in discovering the morbid agent of Asiatic cholera, which, according to their statement, is a "*mucor*" entirely distinct from the "*comma*" of Dr. Koch. Considerable amusement was created at the Academy, when the perpetual secretary, Professor Beclard, exhibited the sealed box which contained preparations and specimens of the offending "*microbe*." Amidst a general burst of laughter, the president was requested "to keep the box sealed." Thus does the spirit of Comedy invade the ground of Tragedy, even in the most serious of human affairs.

Much disappointment has been expressed in Vienna and elsewhere that no official account has as yet been published of the results of Dr. Koch's visit to the South of France. This feeling, however, will soon be dispelled by the report of the next meeting of the Berliner Medicinische Gesellschaft, at which Dr. Koch is expected to make a valuable contribution to the stock of our knowledge of cholera and to present a summary of the results of his own labours on the subject.

The steamer *St. Dunstan*, with a cholera infected crew, arrived in the Mersey on the 18th inst. Some deaths had occurred during the voyage home from Marseilles and several of the survivors were in a condition described as a "want of tone." The Liverpool Medical Officer of Health immediately visited the ship and took active measures by disinfection and isolation to restore confidence to the frightened sailors. The convalescents and suspects were removed to the cholera hospital at Rock Ferry. The captain, officers, and crew, who remain on board in quarantine, are all quite well. The water ballast will be thoroughly disinfected with carbolic acid before being discharged.

A Ministerial Enactment issued by the Prussian Government contains a long series of orders and recommendations on the subject of the sanitary precautions necessary to be taken before and after the appearance of cholera in any given district. Among other instructions will be found an important order with respect to the medical inspection of all persons travelling by railway into Germany from any infected country. Suspicion on the part of the inspecting officer will warrant him in detaining the suspected passenger in quarters to be specially provided for such cases. The traffic along the great rivers is not subject to such severe restrictions. By way of ensuring due attention to the regulations laid down, a further extension of the system of sanitary commissions is to be carried out and applied to towns of less than 5,000 inhabitants. A long and minute series of instructions is appended for the guidance of these commissions, and to many of these excellent regulations the words "if possible" have somewhat naively been added, as they would appear to be as impracticable in effect as they are correct in theory. Instructions for disinfection of clothing and other matters are given in detail, steam being in almost every case the chosen disinfecting agent. The use of dry air at high temperature is not mentioned, and no stress is laid upon the paramount necessity of boiling all the water used for drinking or any domestic purpose whatever.

The chances that the Medical Act Amendment Bill will be passed this year, or will even be again brought before the present House of Commons, are rapidly reaching the vanishing point. Mr. Gladstone stated on Monday night that the Bill could not possibly be taken this week, but that during the week the Government would consider what course can be taken with regard to it.

The grievances of the Indian Medical Service were very ably and temperately brought before the House of Commons by Mr. Gibson and Sir Lyon Playfair on Friday sennight. The medical officers have been labouring under a sense of hard treatment and injustice

for some years ; and the questions that have from time to time during the last two or three Sessions been put to the Under-Secretary for India on the subject have shown that not a few Members of the House were assured of the reality of the grievances complained of, and sympathised with the Service. The Government, however, refused to recognise that any just ground of complaint existed ; and so the discontent spread and increased, and at last found full vent in the House of Commons on Friday. Mr. Gibson and Sir Lyon Playfair moved that the condition of the East Indian Medical Service called for the early attention of Her Majesty's Government ; and that the House trusted that steps would soon be taken to lessen the block in promotion, and the disappointment at the methods of employment existing in its ranks. The motion expresses very exactly the chief grievances of the Service ; and they most acutely and especially affect the junior officers. Nearly all the speakers confined their observations to these grievances, and we shall follow their example. We have not been able to assure ourselves that the senior officers have any great cause for complaint. There are still many very valuable appointments and prizes open to the seniors, though since the Service was divided into two branches, the Military and the Civil, fewer of the great prizes fall to the officers of the Military branch than was formerly the case ; and it may be that in both branches seniority in the Service is more often made to give way to selection on account of special merit. But the authorities must be allowed the power of selection for merit; and though this may give rise now and then to a charge of favouritism, that is a charge which it is very easy to make, and very difficult to either prove or disprove. The grievances of the junior officers are, on the contrary, solid and unquestionable, and we have dealt with them fully in another portion of this paper.

The Under-Secretary for India endeavoured in a laboured speech, bristling with statistics, to prove that there is no foundation whatever for the complaints made. The overmanning of the Service was one of those accidents that will happen now and then in every service, as deaths and resignations do not occur in constantly regular mathematical proportions, and, therefore, mistakes must be sometimes made in calculating year by year the number of officers to be added to the medical reserve ; and he defied any rational person to interpret the incriminated memorandum in the sense attributed to it by the medical officers. He explained the need there is, which no one denies, of retaining a reserve of surgeons in excess of the bare number required to fill all the necessary appointments in times of peace, and he stated that the nature and conditions of this reserve are fully explained in the Indian Medical Blue-Book of 1881 ; but it is difficult to suppose that Mr. Cross really means that any man who thinks of trying for the Indian Medical Service must obtain and study the Indian Medical Blue-Book for 1881, as well as the memorandum issued by the India Office. Mr. Cross was uncompromising in his attitude towards the Service through the greater part of his speech ; but at the end he softened, or affected to soften, a little. He asserted that his sympathy was with the juniors of the Medical Service, and that if, consistently with his duty, anything could be done for them, he should be delighted. The statements made by the various speakers during the debate should receive the utmost consideration, and the whole matter should be placed before the Government of India. Whether Mr. Cross's sympathy and consideration are likely to prove of any value, we have no means of judging ; but though the motion was not pressed to a division it was supported by Members from all quarters of the House, and the Government will do well to consider that a complaint receiving such support must be very real and urgent.

The President of the Local Government Board has had time to consider the report of the Select Committee on the scheme for the sewerage of the Lower Thames Valley, and in polite terms altogether condemns it. It is, he believes, a fact that the Committee decided to recommend that the existing combined district be broken up after they had heard the evidence of only two out of the eleven constituent authorities, and without taking any evidence whatever on the part of the Main Sewerage Board on the subject. He points out that the authorities of the districts included in the joint district had failed, one after another, in their efforts to provide proper schemes for the disposal of their sewage ; and that it was simply and expressly because they had so failed that the Main Sewerage Board was constituted after local conferences and enquiries, and that its constitution was confirmed by Parliament after full consideration by a Select Committee. The decision of the Committee precludes the Sewerage Board from carrying out a scheme unanimously adopted by that Board for the purpose of keeping unpurified sewage out of the river ; and at the same time the Committee have rejected an unopposed scheme that would have protected the Board and the ratepayers from the penalties to which they will be liable, under the Thames Conservancy Act, after September next, for the discharge of unpurified sewage into the Thames.

Sir Charles Dilke observes that should the recommendations of the Select Committee be accepted, and the proposed new groups of districts be formed, the earliest possible date at which any of the authorities can be in a position to commence works, unless suitable land can be purchased by agreement, will be in 1886. But according to past experience it would be hopeless to expect that the separate schemes of the new authorities would not meet with strong opposition. We observed last week that the scheme of the Select Committee appeared perilously like going back to the chaos of discordant authorities that preceded the Joint Board ; and Sir Charles agrees with us. He sums up his criticism of the report by saying, that the present decision of the Committee would appear to make it impracticable to prevent the pollution of the river by sewage passing into it in a crude condition.

We were quite prepared to hear that the Government had found it impracticable to carry out the promise given in March last, to bring in a Bill this

Session for the regulation of the sale of poisonous patent medicines. Such a measure, however, has been prepared, and will be introduced in the House of Peers next Session by the Lord Chancellor. In the meantime it may be hoped that the measure now in force may be applied in a somewhat more liberal spirit than has recently been the case.

Some important conferences have been held at the Health Exhibition during the week. On Monday the subject was Ambulance Organisation. The chair was occupied by Sir James Paget, and the audience included some of the most distinguished experts in this special subject. Dr. Crawford, the Director-General of our own Army Department, Dr. Billings, the well-known chief of the corresponding department in the United States, Baron Mundy, the representative of the Austrian Army Medical Department, and of the Vienna Volunteer Society for Saving Life, Sir Joseph Fayrer, Dr. Farquharson, M.P., and others helped, both by their presence and by their contributions to the discussion, to give importance to the gathering. The readers of papers were Mr. John Furley, who chose for his subject "The carriage and removal of the sick and wounded," and Mr. V. B. Barrington Kennett, who dealt with "the Ambulance organisation of the metropolis during epidemics." Mr. Furley dwelt with a pride that was fully justified on the completeness of our present arrangements for affording first aid to the sick and wounded, compared with the absence of organisation a few years ago, and he foretold a great increase in the demand for specially constructed ambulance carriages. He insisted that these ought to be arranged as far as possible on a uniform system. Mr. Barrington Kennett described the present ambulance system, by which "infected persons are being removed from the Metropolitan area at the rate of nearly 300 a week, with the result that nine-tenths of the small-pox patients, instead of filling the London hospitals, are being treated twenty miles away from the metropolis." Sir James Paget in opening the discussion urged on all present the duty of aiding to the best of their power the extension of the work of first help to the sick and wounded.

On Monday afternoon Mr. Ernest Hart gave a lecture on Smoke Abatement, and on Tuesday Dr. Poore held forth on Thrift in its Relation to Health. There were more points of similarity between the lectures than their titles would lead one to suppose. Both dealt with the disposal of refuse; both arraigned the systems at present in vogue; and both suggested complete combustion as a practical solution of the difficulties. As far as the titles went, Mr. Hart's paper might have been termed "Thrift in Relation to Health" just as properly as Dr. Poore's, a total combustion grate deserving to be called a thrifty appliance quite as much as a Moule's earth-closet. A London fog is matter in the wrong place, no less than sewage in a water-way; and if the effluent from our chimney-sewers and the effluent from our drains were as innocuous as they ought to be, the effect on the death-rate would be most marked. As Mr. Hart pointed out, the mortality in London in some foggy weeks was as great as it would have been during the prevalence of a heavy cholera epidemic.

On Tuesday the series of conferences, held by the Epidemiological Society, were inaugurated by Dr. Norman Chevers with the presidential address on Health in India, which we publish in full in another column. Subsequently, Dr. W. Squire read a paper on change in type of epidemic disease. Even when such supposed change in type was anything more than the effect of circumstances, he believed it did not go beyond the accidents of the disease, which re-appeared in other cases with all its old characters unchanged. There were, however, two well recognised variations of type in epidemic diseases, viz., their rise and decline, both as regards prevalence and severity at certain seasons, and their recurrence in the form of aggravated epidemics at longer intervals. Scarlatina was a striking example of this, being as Heberden said of the allied disease diphtheria, "sometimes so mild as to call for no treatment, at others so violent as to admit of no relief" and malignant forms of small-pox occurred at long and irregular intervals apparently quite independent of sanitary conditions. As to any change of type of a more essential and permanent nature, such as to explain and justify opposite modes of treatment, he believed that the change was really in the attitude of the observer only.

On Wednesday Surgeon-Major R. Pringle, M.D., gave a short account of leprosy in India, appealing to the public as he had repeatedly though fruitlessly appealed to Her Majesty's Indian Government for state aid on account of the leper asylum at Dehra Doon, founded by the late "Shikari Wilson" and the "Dehra Doctor Sahib" (Surgeon-Major G. G. McLaren), and hitherto supported on the most frugal scale by private charity. Here 70 poor lepers of different ages and sexes are maintained in content and comparative comfort at five shillings per month! The duty devolving on the English Government of providing such asylums is more urgent now that the law prohibits the practice which still prevails in the native states of preventing the perpetuation of the disease in families, through the marriage of cases in the earlier stages, by putting the sufferers out of the way, *removing* them from the districts, over a precipice or otherwise.

Inspector-General Lawson opened a discussion on Cholera by reproducing the views he has repeatedly put forward at the Epidemiological Society and elsewhere, maintaining that it is not conveyed by human intercourse, but appears wherever favourable conditions, as manifested by diarrhœal diseases, &c., which may be looked on as prodromata of an outbreak, are present. He again quoted the list of epidemics more or less local in which importation had not been proved, and apparently ignored the many instances in which the importation of the disease was clear. On the occasion of the debates already alluded to we expressed our dissent from the views held by him, and we have not,

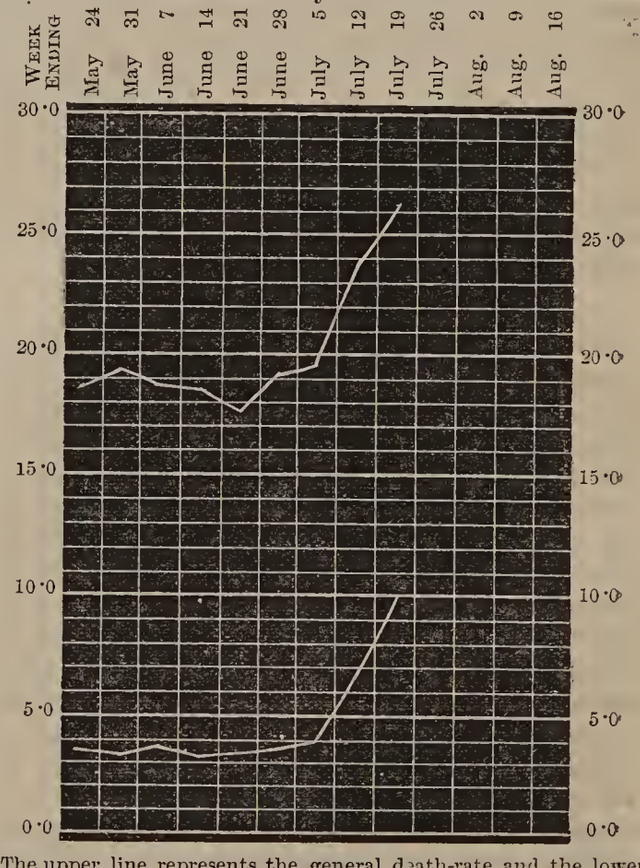
any more than he has, altered our opinions since. We heard, however, with surprise of the prevalence of epidemic cholera in England in 1867–8 !

On Tuesday evening at the Health Exhibition, Sir Francis Bolton explained the exhibit of the united London Water Supply Companies to a select number of medical men, representatives of the press, and others specially interested in the subject. As the Government Examiner, he was in a position to make an authoritative statement. It was interesting to hear him express his own belief that London is supplied with better water, and with a better quality of water than any other city in the world, a fact testified by the low death-rate, and especially the low death-rate from zymotic diseases. A visit to the water pavilion is calculated to afford both instruction and astonishment. The processes of filtration, storage, and supply are not a little wonderful and complicated. Sir Francis Bolton pointed out that one of the greatest difficulties the water companies had to contend with, was the apathy of the public, who neglected in an inconceivable manner their storage cisterns. He had inspected many houses both of the lowest and of the highest classes, and had found the cisterns choked with every kind of dirt and impurity; the water was thus contaminated after being delivered. It was to draw attention to this that he had specially invited a few of those who were interested in the subject, hoping that they could make known the importance of a clean storage cistern. We willingly draw the attention of our readers to this point. It is not improbable that we may have a visit from the cholera this autumn, and if so we ought to fight it tooth and nail. Few more effectual steps could be taken than the thorough cleansing of cisterns in the first place, and the subsequent adoption of means to keep out fresh contamination. Many cisterns in their present state would offer a very suitable cultivation liquid for the cholera germ, if such exists.

On Monday next, at 2 p.m., the important series of conferences on School Hygiene, convened by the Medical Society and the National Health Society, will be opened by Sir Andrew Clark, the chairman for the first day. The most important of the discussions, viz., that on Overpressure in Schools, will take place on Tuesday, under the chairmanship of Mr. Arthur Durham, and will be taken part in by many distinguished speakers, whose names, together with the subjects and speakers on the subsequent days, will be found in our Diary for the Week.

The Annual Meeting of the Medico-Psychological Association was held on Wednesday, 23rd July, at the Royal College of Physicians, London, Dr. Rayner, the President, in the chair. Among other business, Dr. J. A. Eames was elected to be president for the ensuing year, and it was agreed that the next annual meeting should be held in Ireland. The president, in his opening address, dwelt on the delays to treatment caused by the present system of certification of the insane, and asserted that loss of chance of recovery, suicide, and other lamentable occurrences, resulted directly or indirectly from it. He deprecated any increase of the obstructions to placing an insane person under treatment, and advocated that every patient should be examined by a State medical official as soon as possible afterwards. He took the view that to abolish private asylums would logically involve the abolition of the care of single patients, which was regarded by many authorities as the most satisfactory mode of treatment. He recommended the addition of at least four medical commissioners to the present Lunacy Board, and an increase in the pay of the Commissioners in Lunacy. After alluding to various causes which might tend to reduce the development of insanity, and giving a summary of recent progress in treatment, he suggested that any additional accommodation for the insane hereafter provided should be specially adapted to cases of recent insanity. In conclusion, he expressed the expectation that at no distant date an arrest would occur in the present rate of development of insanity. An interesting discussion followed, and the members of the association afterwards dined together at the "Ship," at Greenwich.

The last weekly return of the health of London is a most unfavourable one. The death-rate, 28 per 1,000, was higher than in any week since March twelvemonth, and more than a third of it, viz., 9·9, was due to zymotic mortality. The latter rate was only exceeded in two of the great towns, viz., Leicester, which is always notorious in the summer for its mortality from infantile diarrhœa, and Preston. In London during the week 533 persons, or 242 more than the average, died of diarrhœa and dysentery, all but 20 being children under five years of age. The deaths from all the other zymotic diseases but scarlet



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London in each of the past nine weeks.

fever exceeded the average; including scarlet fever, but excluding diarrhœa and dysentery, the deaths last week were 253 compared with an average total of 195. The result is, that if the upper line on our chart had represented the zymotic death-rate per 10,000, as heretofore, our column would not have been long enough to contain it. A change has, therefore, been made, and the lower line now represents the zymotic death-rate per 1,000. Even so it shows a rise which cannot be quite a satisfactory sight to sanitarians.

The favourable item in the week's return is the abatement of the small-pox epidemic. During the past five weeks the deaths have steadily declined from 59 to 25 per week, while in the same period the weekly admissions to hospital have fallen from 354 to 141. There were still, however, at the end of last week 1,152 cases under treatment. This mitigation of the epidemic may be attributed to the measures undertaken by the Metropolitan Asylums Board, and especially to the zeal and activity of Sir Edmund Currie.

Mr. Victor Horsley, B.S., F.R.C.S. Eng., Assistant Professor of Pathology in University College, was on Wednesday last elected by the Senate of the University of London, Professor Superintendent of the Brown Institution, in succession to Dr. Roy, who has been recently transferred to Cambridge. There were nine candidates for the post, from among whom Dr. Creighton, Dr. Theodore Cash, Dr. Wooldridge, and Dr. Heneage Gibbes were selected, besides Mr. Horsley. The candidate on whom the choice fell, we believe almost unanimously, has already done good original work. Moreover, he is an able surgeon as well as a pathologist, and we cannot but think that the aims of the founder of the institution will be better served by the election of such a man than by the choice of a pure pathologist or physiologist. We can thus congratulate both the institution and the new professor on the selection which the Senate has just made. Mr. Horsley will enter on his new duties at once, and thus a vacancy in the office of Surgical Registrar at University College Hospital will occur.

An interesting experiment took place at Aldershot last night, when, for the first time in England, the electric light was tested in connection with ambulance drill. Baron Mundy who conducted a similar experiment at Vienna in the autumn of last year had promised to give his valuable assistance, and an electric light wagon, manufactured for military purposes, had been brought over from France, at the expense of the National Society for Aid to Sick and Wounded in War. Surgeon H. R. O. Cross, A.M.D. instructor to the Army Hospital Corps' Training School at Aldershot, was detailed to direct the arrangements, and to report upon the demonstration, assisted by Surgeon B. B. Conolly, A.M.D.; and Messrs. Woodhouse and Rawson had been asked to take charge of the electrical part of the experiment. The programme included the application of the electric wagon in searching for, succouring, and transporting 100 men, acting as wounded, from the field to the dressing station on the night after a supposed battle, by a bearer column of the Army Hospital Corps, with mule, mountain and wheeled transport, complete in every detail.

The movement which has resulted in the formation of the Volunteer Hospital Corps, originated at Charing Cross Hospital in March, 1883, and was chiefly due to the enterprise of Mr. James Cantlie. Since that date six other Metropolitan hospitals have joined it, and now have trained corps. On Friday, the 18th, H.R.H. Princess Louise held a formal inspection at St. George's Barracks, when the corps was put through a series of evolutions by Sir Guyer Hunter, who is the battalion officer in command. The corps as it now exists, consists of medical students, and it is designed to be a hospital corps for the volunteer army, and on exactly the same footing to the volunteers as the hospital corps is to the regular army. As medical students will ultimately become the officers in command, it was felt that they were the most suitable body to be first trained in the exercises; but it is not intended to limit these volunteers to medical students; indeed, there are, we believe, already one or two companies of lay members. We had the opportunity of seeing them go through a variety of evolutions at the Health Exhibition the other day, and we can most cordially congratulate the corps on their efficiency, and the officers on the success with which their efforts have so far been crowned.

Cæsar Hawkins, the *doyen* of English surgery, and the last of a family of distinguished surgeons, died on Sunday within a few weeks of completing his 86th year. His health had been breaking for some time, and his death had been long expected. By it the profession loses one of the very few remaining links which connect the present race of surgeons with the great men who flourished before the invention of chloroform and the microscope. Cæsar Hawkins was a grandson of the first Sir Cæsar, who was sergeant-surgeon to the Second and Third Georges. He was a pupil and colleague, at St. George's Hospital, of Sir Benjamin Brodie, and a colleague at the Hunterian School of Sir Charles Bell. He was surgeon to St. George's Hospital from 1829 to 1861, delivered the Hunterian oration at the Royal College of Surgeons in the presence of the late Prince Consort, in 1849, and was President of the College in 1852 and again in 1861. In the year following his second Presidency, he was appointed sergeant-surgeon to the Queen, in which office he succeeded Sir Benjamin Brodie, and had for his colleagues successively Sir William Fergusson and Sir James Paget. In 1874 he published his collected writings, a book which might with advantage be studied by our younger surgeons more often than it is. As a surgeon, Mr. Cæsar Hawkins was an adherent of the conservative school, a school from which medicine is tardily learning to distrust and dispense with that gratuitous interference with the course of disease which was at one time incumbent on every practitioner. His aim and teaching was to avoid an operation wherever possible, but to perform it pluckily and thoroughly when it was called for. He and others of

the same school might have chosen for their motto without much twisting of its sense, the passage from Hamlet, which Mr. Gladstone lately used to describe his policy on the Franchise Bill.

Like the majority of those who have attained high rank in the profession of medicine, Mr. Hawkins was a man of character as well as ability. One who knew him for nearly fifty years writes of him :—"During all these years he was ever the same—most industrious and painstaking in all matters relating to his work—high minded and honourable in all that was connected with the interests of his profession—kind and liberal to a degree, that truly it may be said, his right hand knew not what his left gave away. All who had the privilege of his friendship will endorse this estimate of his character. He was one of the most accurate and clear-headed of men that I had ever anything to do with—no lover of ostentation—no seeker after personal advancement by show or talk—but true in every sense of the word, and a thorough high-minded gentleman."

With the view of uniting the members of the Universities of Oxford and Cambridge at present working in various capacities at Guy's Hospital, a very successful dinner was held on Wednesday, July 16th, at the Holborn Restaurant, under the Chairmanship of Mr. J. N. C. Davies-Colley. It was decided that the dinner should be established as an annual event.

The Woolton Convalescent Institution at Liverpool provides an example, financially as well as otherwise, which it would be well for many of our medical charities to endeavour to imitate. During the past year 924 patients were received within its walls. These contributed 945*l.* The garden attached to the place realized 110*l.*; subscriptions, donations, and Hospital Sunday, 835*l.*; interest of the Roger Lyon fund and bank interest, about 900*l.* The expenditure was so far within the income that the committee were able to carry 1,200*l.* to the building fund, and still leave a small credit balance of 50*l.* The ordinary rate of payment per patient is 10*s.* per week. The accommodation is now much increased, and an extension of the privileges of donors and subscribers is announced by which nominated patients can be received at 5*s.* per week. The institution is situated in a delightful suburb of Liverpool, and commands extensive views.

A dramatic performance, in aid of the Building Fund of the Great Northern Central Hospital, was given at St. George's Hall, Langham Place, on Tuesday, 22nd instant, under the personal patronage of the Baroness Burdett-Coutts and the Ladies' Association of the Hospital. A special interest attached to this performance on account of the production of a new afterpiece, by Messrs. Walter Besant, and W. H. Pollock, entitled "The Charm," for the first time on any stage. The new play, which was preceded by an adequate representation of W. S. Gilbert's "Tom Cobb," was received with indulgence by a fairly large audience, although rather trying to the patience of the majority, owing to the unskilful arrangement of its dramatic situations, and the wearisome iteration of its leading sentiments throughout the dialogue. The Band of the 1st Battalion Manchester Regiment performed a selection of music during the evening.

Dr. E. C. Stirling, lately an assistant surgeon to St. George's Hospital, but now Lecturer on Physiology at the Adelaide University, has been elected a member of the Legislative Assembly for North Adelaide.

A Correspondent writes to us from Exeter :—General practitioners are often sent by some one to a case of accident or emergency, when the patient is not able to pay the fee. They are then in this dilemna: either they attend, and get no fee, or they decline to attend without payment, and are then called mercenary and heartless. A case has just come before the Exeter County Court, in which the judge decided that "merely sending a man for a doctor was no contract to pay." In Exeter the police have lately been empowered to call medical men to cases of accident or emergency, the Town Council paying a fee of 3*s.* 6*d.* or 7*s.* for a day or night visit respectively; and sixteen or eighteen medical men have given in their names as willing so to attend. But in this instance, the surgeon was not called through the police; nor does the police arrangement meet the difficulty specified. If the County Court Judge's ruling be correct, our only protection, when called to a patient circumstanced as above, and not by the police, is, to refuse to attend without payment. For a medical man to go single-handed into court to try this or any other question affecting the rights of the profession, is occasionally proper and necessary, but the chances of success, or at any rate of making the proceedings tell to the advantage of the profession, would be much enhanced if the action taken were known to be that of an association of medical men. Union is strength, and union is very often the one thing wanting in medical action. Trade is powerful in Exeter, and meets with consideration, because tradesmen hang together. The medical profession would have more weight and influence if the common interests of all were more kept in view. The sanitary state of localities is just now of pressing importance. That of Exeter shows but little improvement of late; for, although the Medical Officers of Health fulfil their duties efficiently, their representations are not adequately carried out by those on whom the duty of doing so rests. Not that the reluctance to act is greater, or the back streets and alleys worse, than in some other towns; but this does not diminish the risk; for whether in one town or fifty, filth about human dwellings will produce its natural consequences.

On Monday, the 21st inst., Dr. Charles A. Cameron was elected Vice-President of the Royal College of Surgeons in Ireland, by the large majority of 54 votes out of the total poll of 88. The Vice-Presidency was vacant through the resignation of Dr. Anthony H. Corley, who is a candidate for the Chair of Surgery, rendered vacant by the death of Dr. James Stannus Hughes. Among the many official appointments held

by Dr. Cameron are those of City Analyst and Superintendent Medical Officer of Health for Dublin, Pathologist to the Coombe Lying-in Hospital, and Lecturer on Theoretical and Practical Chemistry in the School of Surgery, Royal College of Surgeons. On the same day an election was held to fill the vacancy caused on the Council of the College by the retirement of Dr. Edward Hamilton, who is also a candidate for the vacant Chair of Surgery. The following is the result of the poll :—For Mr. Austin Meldon, 40 votes ; Mr. Frederick Alcock Nixon, 33 votes ; Mr. Johu Benjamin Story, 12 votes ; Mr. James Good Curtis, 2 votes.

Another well known and respected teacher in the Medical School in Vienna has lately passed away at the early age of 39. Dr. Julius von Massari was for several years a most active and popular teacher of Gynæcology, especially amongst the numerous foreign students for whom the great Viennese School provides such abundant academic attraction. His death took place from an attack of acute endocarditis, on July 12th, and his funeral was made the occasion for a display of the universal regret felt at his loss by his many friends and colleagues.

The first number of the new *Centralblatt für Laryngologie, Rhinologie und verwandte Wissenschaften*, lately. published by Hirschwald, in Berlin, fully justifies the large measure of support which, as the Editor, Dr Felix Semon, informs us, has been already accorded to it. The use of the German language for an international journal edited in London, would appear at first to be somewhat of an anomaly, but a glance at the history of previous undertakings in England and America will sufficiently explain the reasons which have influenced the choice. The recent demise of the *Archives of Laryngology* in New York, from sheer inanition, will be in the recollection of all Laryngologists, and the fact that no journal specially devoted to this subject has succeeded in maintaining an independent existence in this country is equally well known. It is more than probable that a very large proportion of those interested in the progress of Laryngology, whether practising as specialists or not, have studied the subject in one of the great German schools and hence possess a knowledge of the language sufficient to enable them to read the new *Centralblatt* without difficulty. The object of the journal, as already noted, is to furnish a really trustworthy summary each month of the current publications in the region of medicine and surgery comprised in its title. As a guarantee of the character of the work, the signature of each contributor is appended to his article, review or abstract. The arrangement of subjects is for the most part anatomical, and under each heading will be found a reference of longer or shorter extent according to the importance, novelty or special interest, of the subject matter, of every published work which has appeared in any country within recent times. That the work is truly international in fact as well as in name may be gathered from the list of contributors to the present number, whose contributions are dated from most of the capital cities of Europe and also from the United States of America. Reviews of standard works appear amongst others from the pens of Drs. Gerhardt and Morell Mackenzie. The journal is clearly printed and furnished with a good index, and bears every evidence of skilful and painstaking editorship. It will undoubtedly take a prominent place in the ranks of first class medical journalism.

The numerous theories as to the proper treatment of enteric fever by calomel, by alcohol, by the cold bath, by quinine, by water, by wiue, by carbolic acid, by milk, by bread and butter, by corrosive sublimate, by salicin, by over-feeding, and by starvation, which have been from time to time flourished in the face of the medical world, might not unreasonably be supposed to have exhausted the subject of everything like novelty. A paper recently read before the American Medical Association, however, promulgates a theory which is not only ingenious in itself, but which also affords to the practitioner the grim satisfaction of, so to say, hoisting the typhoid bacillus with its own petard. According to Dr. J. K. Jackson, the microbe of enteric fever is a nitrogen-feeder ; and the nitrogenous wasting of typhoid-fever patients, the diminution of their fibrin, the deficiency of urea, and of all their nitrogenous excretions is due, not only to their inability to digest nitrogenous food, owing to the congested and inflamed condition of the peptic and other glands, but also to the consumption of nitrogen by the parasitic organism, which is "the acknowledged ætiological factor in the production of enteric fever." Thus feeding on the tissues of its host, the micro-organism breaks up their nitrogenous constituents into ammoniacal compounds, and hence the ammoniacal exhalations from the typhoid-fever patient, from his breath, his skin, and his urine. This pathological condition furnishes a two-fold indication for the treatment of the disease. Since the nitrogenous waste cannot be made good by the ingestion of nitrogenous food, ammonia should be administered freely, even to saturation. "Fortunately this nitrogenous base furnishes us with salts of such different therapeutic virtues that we can select one suited to any stage of the disease, and to any condition of the system." The nitrate of ammonium, in doses of ten or twelve grains every two hours, will reduce the typhoid-fever temperature to 102° F., and keep it there. As the disease progresses, and there is less need of a sedative, or if diarrhœa supervene, the acetate should be substituted for the nitrate, and acetate of lead and opium given at the same time. If nervous symptoms show themselves, with a failure of vital power, ammonic carbonate, combined with potassic chlorate should be resorted to ; but if coma develope, recourse is to be had to the chloride of ammonium in five grain doses every two hours. The effect of this is described as magical. Dr. Jackson looks on the delirium of typhoid fever as being due to deficient nourishment, a delirium of starvation, and finds that it usually yields in a few hours to the free administration of ammonia.

But the ammoniacal salts possess another and far-reaching effect, of which the *modus operandi* has

hitherto remained unrecognised. It is a law, we are told, that no organism can live in its own excreta. Hence the microbe of enteric fever, whose own life-processes comprise the conversion of the patient's nitrogenous tissue into ammonia, perishes if the system be saturated with ammoniacal salts. So that highly carbonaceous medicament, quinine—although it is the antidote *par excellence* to the carbon-feeding (and carbon excreting) parasite of malarial fever—has long been abandoned by Dr. Jackson as not being the appropriate germicide for typhoid fever. For a disease in which ammonia is the excretory product, ammonia is the most efficient germicide; for this nitrogenous base not only supplies the nitrogenous waste, but also destroys the vitality of the organism which causes it.

This theory has yet another development, not less attractive. It is usual to account for the protection of the system against a second attack of contagious zymotic diseases by supposing the immunity to depend upon an exhaustion of the pabulum necessary for the support of the parasite; but we are now asked why, in accordance with the law lately enunciated, we should not attribute it to an infusion into the system of some excretory product which forever acts as a poison to the parasitic organism? And in reply, we must frankly admit that "if this be the law," then this also "is the most probable explanation." Surely here is additional cause for abounding humility in the reflection that the human body, so fearfully and wonderfully made, the source of so much pride, the object of such care and adoration, is safe from an attack of typhus, or of small-pox, only so long as it continues a refuse-heap sodden with the excretion of by-gone generations of microscopic parasites! Unfortunately Dr. Jackson has declined to publish the results of the treatment which he pursues in accordance with his theory. We do not say the treatment founded upon it, because, from the length of time during which he has practised it, we may gather that it was begun long before the existence of bacilli as the causative factors in the production of zymotic disease was commonly suspected, much less regarded as fully established, even by our author. This at least is a more charitable inference than to believe that the practice was not empirical in origin, and that its originator has for so long refused to make known its worth in the treatment of suffering humanity. Dr. Jackson is "reluctant to state the result of this treatment," preferring that its value should be personally estimated by practitioners as the result of their own experience of its efficacy amongst their patients, unbiassed by any percentage statements in its favour, such as he more than hints he could, if necessary, supply. As, however, he professes to have been pursuing this one plan of treatment for 35 years, and has seen no reason to deviate from it during that period, we gather that the doctor himself, and presumably his patients also, are sufficiently satisfied with its results.

In the course of an excellent article on ovariotomy, contributed by Dr. J. B. Hunter to the *New York Medical Journal*, the writer states that instead of making the requisite solutions of corrosive sublimate and of carbolic acid with distilled water—the unsuspected impurity of which is often "a source of danger, and may easily invalidate all the other antiseptic precautions"—he now uses exclusively water taken from the boiler of a steam engine. In the boiler of a lower-pressure engine the temperature of the water will have been raised to about 50° F. above the boiling point; in that of a high-pressure engine the temperature of the water will be much higher; in either case it will have sufficed to destroy those organisms, some forms of which are known to survive a temperature of over 212° F. Water from the boiler of an engine, which can be obtained almost anywhere, is probably the purest that is available for such purposes.

"Rough on rats" is being largely advertised in this country as an effective means of ridding premises of these and other similar pests. Its mortal efficacy is, however, not less impartial than potent. The American Press has had frequent occasion of late to record its deadly effects upon human beings; and now, roused by its successful employment by a suicide, the question is asked as to whether the time has not come for some measures to be taken to check its indiscriminate sale? Something more than this is probably needed to arouse the British public to an adequate appreciation of the dangers attendant on general peddling in a "really reliable vermin-killer."

By his will the late Professor Gross directed that his medical library should be offered to one of certain medical institutions named at the choice of his executor; he left a sum of 5,000 dollars for the purpose of founding a prize, to be awarded every five years, to the writer of the best original essay illustrative of some subject in surgical pathology or surgical practice founded upon original investigation—the candidates to be American citizens. The executor of the will has offered both the library and the prize to the new Philadelphia Academy of Surgery, and this body has accepted the trust.

THE DEBATE ON THE INDIAN MEDICAL SERVICE.

The long-delayed discussion on the grievances of the junior officers of the Indian Medical Service at length came off on Friday last. It is hardly to be expected that the officers will derive much satisfaction from the tone of Mr. Cross's speech, or from the grudging promises with which it concluded; but it will be some consolation to them to feel that they can command such able championship and such general sympathy as was extended to them by the several speakers in the debate. There was very great risk that their prospects of securing such sympathy and support would have been prejudiced by the able, but impolitic, pamphlet which was issued a few months ago by some of their number. To bring a charge of wanton breach of faith against a Government department is not the best way of securing the favour of impartial judges, especially when it can be shown, as Mr. Cross succeeded in showing on

Friday, that there is no ground for such a charge. Happily, as it turned out, the pamphlet did not work the harm it might have done. Much is to be forgiven to men who have been put out of heart and temper by what they consider unjust treatment; and, doubtless, the many Members of Parliament who read the pamphlet had their sympathies stirred by the grievances it so tellingly unfolded and forgot its faults of taste.

It is not easy to understand the grievances of the junior officers without some little study; indeed, many seniors in the Service aver that they cannot themselves understand them. We have gone to some trouble in perusing the bulky blue-book issued a few years back, have carefully studied the various memoranda which have been issued, and have made many personal enquiries. As a result of these investigations we think that Mr. Cross can fairly claim to be exonerated from all charges of breaking faith. The memorandum which is accused of having misled the medical officers was first published in 1864, and was issued in an unaltered form until last year. It stated the rates of pay in the Indian Service, from which it appeared that that of surgeons of less than five years' service was Rs. 286 per mensem. It next stated the salaries of the principal appointments, showing that a surgeon of under five years' service would obtain Rs. 450 per mensem if in charge of a regiment. A subsequent paragraph, the wording of which has been the cause of all the misunderstanding, ran as follows :—"A medical officer will, however employed, be restricted to the rate of pay laid down in paragraph 14 (*i.e.*, in the case of surgeons of under five years' service, Rs. 286 per mensem), until he shall have passed the examination in Hindustani, known as the Lower Standard." The obvious intention of this proviso was to encourage officers to pass the examination at the earliest possible opportunity, and the way the India Office meant the whole series of paragraphs to be understood may be expressed in some such terms as the following :—"We promise you Rs. 286 as soon as you enter the Service, and Rs. 450 when you receive an appointment, provided you have passed the 'Lower Standard.'" The candidates read it quite differently, and thought the Government promised an appointment and Rs. 450 as soon as ever that examination had been passed. The writers of the pamphlet already referred to, in omitting the paragraph which detailed the lower rates of pay before an appointment was obtained, acted with more astuteness than candour, and no doubt fairly laid themselves open to Mr. Cross's charge that their statements were of a most misleading character.

Thus much is required to explain the position of the India Office, in whose reputation for fair dealing and honesty, as a Government department, everyone must be interested. We pass by all these unfortunate recriminations to come to the real points at issue. The Government may not have been—and in our view has not been—guilty of deceiving its subordinates; but there can be no doubt as to two points—first, that the officers who entered the Service a few years ago did enter it under a misconception; and secondly, that since they have been in the Service the conditions of pay and employment have been much more unfavourable than they were justified in expecting, even assuming them to have been under no misconception. As it was, they were the subject of a double misconception. Their information was derived from two sources, first from the Government memorandum, and secondly from what they gathered from friends and others as to the prospects open to them in India, and in both cases they were deceived. For reasons which could not have been foreseen, their entry into the Service nearly coincided with a block in promotion, as the result of which a very much larger number of officers were kept on the lower rate of pay than had been previously the case. Thus the memorandum, which had never before been regarded with discontent, because appointments were rapidly obtained, came in for a large share of vituperation when men found themselves kept for years on a scale of pay which was originally intended to apply to only the earliest period of service. It is obvious, of course, that in a service like the Indian Medical Department, where long furloughs are given from time to time to the officers in regular employment, there must be a certain number of men available to take their places when on leave. But it may be safely stated, that those who organised the department never calculated on having a hundred or more able young men, employed year after year in this *locum tenens* duty. Indeed, the fact that of recent years the India Office has considerably diminished the yearly number of vacancies, may be regarded as a confession that there had been a serious miscalculation as to the requirements of the Service.

We have been told by Mr. Cross that time will put everything straight, and that in a year or two all the men who complain of grievances will obtain permanent appointments. That, however, is but a barren consolation to those who have been working away through the best years of their life on the very inadequate stipend which goes by the name of "unemployed pay." Something more than the mere efflux of time is required to restore loyalty and content to the junior branch of the Service, and we sincerely hope that the Government will see its way to giving some solid recompense for the deferred hopes of the past, as well as ample promise for the future. The feeling which is prevalent among scores of young Indian surgeons is that they have been "done" by the Government. They think that the Indian authorities tried to get the best available medical talent without being willing to pay a fair price for it. All of us who have had anything to do with the medical schools during the past decade, can instance cases of men who were tempted away from the prospect of certain, if somewhat deferred, success at home, by the comparatively high pay promised them in India. They passed a brilliant examination and went away, believing that they would be earning nearly £500 a year the moment they set foot in India. These men, after serving five or six years in the East, after passing, some of them, through arduous campaigns, after being despatched from one unhealthy station to another, *at their own expense*, are still earning about £250 a year, or about half what they would be making at home if they had put a brass plate on their door and waited for patients. No wonder that they send home furious letters, cursing the day when they were tempted to India, and begging their friends

to do all they can to prevent others from falling into their mistake. Some few, by luck or interest, have been more fortunate; but the number of individual cases of hardship that one hears of, and the instances quoted in the course of Friday's debate, show that the complaints are not the mere outcry of a handful of grievance-mongers who would have been mutinous in the best-managed Service in the world. If the Indian authorities wish to retain the able services of the men they have caught—if it is still their policy to attract men of the same high stamp to the Service—if, above all, they are anxious to see in it that all-important condition of efficiency, content, they must do something more than act up to the letter of the memorandum as they themselves interpret it. A more liberal treatment in the matter of pay and promotion would, no doubt, do much to restore content to the Service; but to be fully efficacious it should be combined with a more generous display of sympathy and a more evident anxiety to see things from the standpoint of their discontented subordinates than the officials of the India Office have yet shown.

THE ARTIFICIAL FEEDING OF INFANTS FROM A NEW STANDPOINT.

The high rate of infantile mortality, and its very definite and sudden increase in that class of cases in which artificial feeding has to be resorted to, has long been recognised. The difficulties experienced in bringing children up by hand have led not only to the substitution of the milk of various domestic animals for that of the mother—and this in various degrees of dilution—but also to the production of a long list of artificially compounded "foods" which claim to take the place of the infant's natural aliment, many of which are positively unnatural, and therefore more or less injurious in character, while none of them can be considered in every way satisfactory. Even those whose composition agrees most exactly with the generally received analyses of the milk of the nursing woman, fail adequately to replace it; while their cost, and the trouble entailed in preparing them, are obstacles fatal to their adoption by a large section of the community. Some children—in the aggregate, a considerable number—there must always be, for whom artificial feeding is a necessity; and for these the desideratum is a food which shall, in its composition and digestibility, represent mother's milk with an exactitude sufficient for all the practical purposes of digestion and nutrition, and which shall at the same time be inexpensive and easily prepared from materials always at hand. It is not improbable that the efforts which have hitherto been made in the direction of the point first named—that of obtaining an artificial food comparable, in composition, with human milk—have been founded upon imperfect data, and have therefore naturally produced unsatisfactory results. Dr. Arthur Meigs[1] takes up the position that human milk normally contains no larger proportion of casein than about one per cent, and that it is of the first importance to the child that this proportion should not be exceeded in the composition of any substitute. He makes out a strong case in support of this view. With respect to the varying results of the analyses of woman's milk made by different chemists, he points out that as regards certain of its constituents there is very little discrepancy: the fat—which can be completely extracted by ether; the water—which can be accurately estimated by evaporation; and the inorganic matter—which can be easily and correctly determined by incineration, afford but little difficulty in estimation; and an almost exact uniformity of conclusion with regard to the relative quantities of these substances is revealed by an examination of the different analyses; nor is there any practical difference of opinion in regard to their amounts. If we take the estimates of casein and sugar, however, the case is very different, and it is noticeable that while, in regard to cow's milk, chemists have all arrived at conclusions which are practically identical, there exists the widest divergence of view as to the proportions in which these ingredients exist in human milk; the results vary from Dolan and Wood's estimate of casein at 7·005 per cent., to that of Henri and Chevallier who place it at 1·52 per cent.; Dr. Meigs' own experiments lead him to conclude that the real proportion is about one per cent. It is a striking fact that if, in any of these analyses, the amount of casein and sugar be added together, "the sums are found in every instance to be nearly the same." This is well shown in the subjoined table compiled by Dr. Meigs, which also

	Vernois & Becquerel.	Simon.	Henri & Chevallier.	Dolan & Wood.	Haidlen.	L'Heretier.	Doyere.	Clemm.	Tidy.	Meigs.	Payen.	Quevenne.	Regnault.
Casein	3·924	3·43	1·52	7·005	3·1	1·30	0·85	3·533	3·533	1·046	0·215	1·05	3·9
Sugar	4·364	1·82	6·50	1·921	4·3	7·80	7·31	4·118	4·624	7·407	8·805	7·32	4·9
Total	8·288	8·25	8·02	8·926	7·4	9·10	8·16	7·651	8·157	8·453	9·020	8·36	8·8

shows that, in each instance where the amount of casein is large, that of sugar is small, and *vice versâ*. It must, therefore, be concluded that human milk, the composition of which as regards water, fat, and inorganic matter, is practically constant, either varies continually and within very wide limits as regards the proportion of sugar and of casein which it contains; or else, that the methods employed by the majority of chemists for determining the quantities of these ingredients are faulty, and their conclusions incorrect.

The former inference can scarcely be admitted as the correct one. Wanklyn's statement that cow's milk is a substance exhibiting great uniformity of composition, is probably also true of human milk; we may very fairly argue by analogy that it is *primâ facie* very unlikely that human milk would vary in the relative proportion of its most important constituents to the extent which published analyses seem to indicate. Moreover, it is significant that the results attained by any one investigator—though they differ widely from those of another—are, for himself, practically always identical; and this, even though they include analyses of very many specimens derived from different women. So that the conclusion is unavoidable that these differ-

[1] *Proof that Human Milk contains only about one per cent. of Casein; with remarks upon Infant Feeding.* Philadelphia County Med. Soc., Dec. 22, 1883.

ences in the analyses published by different observers are due, not to variations in the quality and composition of the milk, but to the defective methods employed by most of the investigators. The problem is, however, one admitting of mathematical proof. As we have already indicated, there is no practical difference of opinion as to the percentage composition of human milk so far as regards water, fat, and inorganic material; moreover there is a general agreement that the total amount of casein *plus* sugar constitutes about eight per cent. If it can be shown, then, that of this eight per cent. the sugar accounts for seven per cent., it is obvious that the casein of human milk cannot be present in larger amount than the remaining one per cent. of the whole.

In the paper to which we have referred, and which is well worthy of attentive perusal, Dr. Meigs describes in detail the method of analysis which he has pursued for some years past, with the object of determining the amount of sugar present in human milk; he appears to have proceeded with great care, and the approximate accuracy of his results may be inferred from the fact that when the same method is applied to cow's milk, it gives the amount of sugar as about four or five per cent.—the quantity generally conceded to cow's milk. As the mean result of ten separate analyses of the milk of 43 women, Dr. Meigs gives the quantity of casein as 1·046 per cent., and the composition of human milk as follows:—water 87·163, fat 4·283, casein 1·046, sugar 7·407, ash 0·101. In this connection it is worth noticing that Bierdert, in an exhaustive article on the subject (Virchow's Archiv, Band 60, 1874) states that, as the result of numerous experiments conducted upon lines quite different from those above mentioned, he has "come to the conclusion that the amount of cow casein which an infant's food should contain is one per cent."; and this is the more remarkable since he arrives at this opinion from a reason wholly unconnected with the idea that human milk contains only one per cent. of casein

The milk of the cow is almost universally that which is taken as the basis of artificial foods for infants. It contains about four per cent. of casein; and when reduced by dilution with water so as to contain the ideal one per cent., the mixture becomes, of course, relatively poor in fat, sugar, and salts. The deficiency may, however, be remedied with sufficient exactitude by the addition of a proper quantity of cream, sugar of milk, and lime water, or, perhaps, of the phosphates of lime and soda: and this principle has found application in one of the most successful foods hitherto used in this country, the so-called artificial human milk devised by Dr. Frankland and introduced to the notice of the profession some years ago by Dr. Playfair. Bierdert and others, indeed, contend that there are absolute and important chemical differences between the casein of the cow and that of the human female; but this cannot be held to have been demonstrated with certainty. It is not possible to be certain as to all the chemical relations of a substance whose chemical composition has not yet been certainly determined; its solubility, for instance, varies greatly in accordance with the manner in which, and the agent by which, the original coagulation was effected, and the extent to which it has been dried; if thoroughly dried for several hours at 100° C., casein is rendered quite insoluble in water, and even in a strong solution of caustic soda. Cows' milk is usually, if not always, acid in reaction; that of women is alkaline. Lehmann says,[1] "I believe that the jelly-like coagula of woman's milk are more dependent on the alkaline state of the fluid than on any peculiarity in the casein; at all events, I have found that women's milk, when acid, yields a much thicker coagulum than when alkaline; and that cows' milk, when alkaline, a much looser coagulum than when acid." There would appear, therefore, to be certain obvious advantages to be gained by the use of lime-water in compounding such an artificial food as shall adequately replace the infant's natural aliment, since it secures the desired alkalinity of the mixture and furnishes certain useful mineral constituents; while long experience has empirically proved its value as a most useful adjuvant to the digestion of cow's milk by the human stomach.

When hand-feeding is desirable or necessary, Dr. Meigs recommends the following plan:—From a reliable druggist packets of pure milk-sugar containing 17¾ drachms each are to be obtained. The contents of one of these is to be dissolved in a pint bottle filled with hot water; this solution (which will not remain good for more than a day or two in hot weather) must be kept in a cool place; if it becomes sour—as is easily known by smell and taste—it must be thrown away, the bottle scalded out, and a fresh solution prepared. When the child is to be fed, the nurse should mix together two tablespoonfuls of good cream, one of milk, two of lime-water, and three of the sugar-water; as soon as this mixture has been warmed, it may be poured into the bottle and given to the child. After the first few weeks, the child will require a larger quantity, and twice as many tablespoonfuls of each of the ingredients (making about half-a-pint in all) may be mingled for each meal. It is an easy matter—minimising trouble and expense—to have the lime-water made at home.

Assuming that the milk used is of average good quality, and that the cream contains about seventeen per cent. of fat (analyses of seventeen specimens gave an average of 16·398), the percentage composition of such a mixture is as follows:—Water, 87·639; fat, 4·765; casein, 1·115; sugar, 6·264; ash, 0·217, which corresponds very fairly with the analysis of average human milk already given. If some of it be agitated with ether and alcohol the coagulation "takes place in the form of a very fine network, which remains permanently distributed throughout the lower stratum of the liquid, no sediment forming at the bottom." If the lime-water have been omitted, the coagula are thick and heavy, sinking at once. The still common rule of obtaining the child's milk from a single cow is certainly one more honoured in the breach than in the observance. Apart from the fact that slight variations in diet, &c., affect the milk of the individual cow much more than the general average of the mixed milk obtained from a herd of a dozen or twenty animals, there is the more important fact that the cow is, during lactation, subject to periodical returns of œstral excite-

[1] *Physiological Chemistry*, Vol. I, p. 378.

ment, during which the quality of her milk is liable to be injuriously modified. The infant's stomach affords delicate indications of these changes in its food, as must often have been noticed in the case of children brought up under these conditions ; and breeders have observed similar results to follow in the case of the sucking calf. The admixture of the milk of one or two cows in this state with that of many others in their usual condition minimises the effect, if it does not entirely neutralise it. In other words, cows', not a cow's, milk should be employed. If then the child exhibit symptoms of a dyspeptic character at intervals of every three or four weeks, the milk of the single cow should always be discarded ; and if other milk of good quality is not easily obtainable, it is better to resort to condensed milk—although most of the varieties now in the market contain an enormous excess of sugar and too little fat, and it is difficult to believe that "any article which has been canned and kept for weeks and months, and perhaps for longer, can be so good as the same thing when fresh." To the families of the poor, who frequently possess ample grazing ground in the form of common land, hedge-rows, and roadside stretches of turf, a goat or two would prove the source of both health and profit.

Authorities are apt to vary a good deal as to the extent and manner in which the strength and amount of the infant's food should be increased from time to time. It is usually advised that the food should be gradually increased in concentration, until finally, pure cow's milk is given. Dr. Meigs incidentally points out the interesting and suggestive fact that, after the colostrum has once disappeared and the nursing process has settled down into its even course, the increase in the solid ingredients of human milk is so slight that it may be disregarded. "Analyses show that the milk of a woman whose child is two months old, does not differ materially from that of one whose child is twelve or fifteen months old. It is best, therefore, if the infant thrives and grows as it should, not to make any change in the [artificial] food until after six to nine months of age have been attained." If the child be a robust and healthy one, it may take as much of the food as it wants (and a healthy child will often take three pints, or even more, in the twenty-four hours), but always of the same strength.

Towards the construction of an ideal food for infants deprived of their natural sustenance, numerous investigators, starting from various points and travelling by different roads, have been for long advancing. The article to which we have made full reference, is a valuable contribution to our knowledge on this subject, and Dr. Meigs' conclusions deserve careful and respectful consideration. Many an infant, thanks to its "inherent powers of adaptation to the environment," has doubtless "pulled through" rather in spite of than because of the well-meant but mistaken efforts which were made to supply the place of nature. There is something akin to a novel satisfaction in the consolatory suggestion, that at least the weak stomach of the puny town-bred babe may even have benefited by the sophistication of the milk which should have been supplied to its elder brothers and sisters *pur et simple.*

THE SOURCE OF THE LIQUOR AMNII.

It is generally believed that the liquor amnii is partly made up by fœtal urine. The main argument in favour of this view is that in cases of congenital occlusion of the urethra, the bladder, ureters and kidneys are found greatly distended with fluid, showing that urine is secreted during fœtal life, and if this be so, the secretion can only escape into the liquor amnii. Our laborious German brethren, however, are not satisfied with this inference, and have sought to strengthen or refute it by direct experiment. In a paper by Dr. G. Krukenberg, of Bonn, recently published in the *Archiv für Gynäkologie*, these researches are summarised and critically examined. We cannot afford space to condense the very elaborate arguments as to the source of the amniotic fluid upon which the author enters ; but we may briefly quote the facts which, after searching examination, he regards as experimentally proved. First, substances capable of easy chemical identification (*e.g.*, iodide of potassium) have been administered to the mother during gestation, in order to see whether they found their way into the liquor amnii. No such substances, even when given in large and frequent doses, have, however, been constantly found in that fluid, although it may be expected that with improved methods of experiment they will be found more frequently. In every case in which the chemical used was present in the liquor amnii, it was present also in the urine first passed by the fœtus after birth. This is the only statement as to which there is general agreement in the results of different observers. Dr. Krukenberg's own experiments lead him to a different conclusion. He has never failed to find iodide of potassium in the liquor amnii if it had been given to the mother *some hours* previously. He criticises carefully the experiments upon animals which have been made ; and his remarks, which are very cautious, point to the general inference that what is true of animals does not always apply to the human species. He thinks, however, that there is reason to believe that, both in animals and in the human species, the membranes permit transudation more readily towards the end of pregnancy than at an earlier period. It follows that experiments on the liquor amnii at the end of pregnancy do not throw light on the mode of its production during the earlier months. He thinks it has not been experimentally demonstrated that the fœtus passes urine into the liquor amnii, although the absence of such demonstration does not negative the fact. He considers at great length the causes of the increase in the amount of urea excreted which takes place after birth, and its diminution after the first four or five days of life. But he makes no mention of the researches of Parrot, who brought forward evidence that the diminution in urea is only relative ; the urine contains a smaller percentage of urea, but more urine is passed ; so that the quantity of urea in proportion to the weight of the child steadily increases. If Parrot's view be correct, Dr. Krukenberg's reasoning is superfluous, seeing that what he wants to explain is not a fact. He then considers the qualities of the liquor amnii, and comes to the conclusion that the physical and chemical examination of

this fluid gives us no information as to its source. The next point for discussion is the hypothesis of Fehling, that the liquor amnii is exuded from the umbilical cord. Fehling supported his view by a table showing the more the liquor amnii, the longer the umbilical cord, and inferred that the longer the cord, the more the fluid. Dr. Krukenberg has re-arranged the table, grouping the cases so as to show whether the longer the cord, the more the liquor amnii, and he finds that, grouped in this way, the two sets of figures do not vary coincidently. He concludes that the production of liquor amnii by exudation through the umbilical cord is neither experimentally proved nor probable. Dr. Krukenberg's paper is a very laborious one, and for that reason we have thought it worth attention; but it does not seem to us that it much advances our knowledge of the subject.

REVIEWS AND NOTICES OF BOOKS.

SOMNAMBULISM AND HYPNOTISM.[1]

The choice of somnambulism as one of the subjects to be taken up by the Committee for the Collective Investigation of Disease gives a special interest to some recent publications dealing with this hitherto neglected and perhaps unnecessarily obscure chapter of nervous pathology. Dr. Tuke has for many years made this and some allied subjects specially his own, and has perhaps as much right to speak on them as any observer of these phenomena. Those who have paid attention to the question of hypnotism, apart from the imposture and credulity by which the matter is generally confused and obscured, are perhaps all ready to admit with Dr. Tuke that the state which is genuinely produced in so-called hypnotism is closely allied to, if not identical with, natural or spontaneous somnambulism. It is mainly this point which is illustrated in the book before us. The first chapter describes what is denoted by the term somnambulism; and the phenomena are referred to a suspension or inhibition of certain parts of the brain while others are in full activity. This partial explanation is not very new, although from time to time it is stated afresh with an air of originality, and Dr. Tuke's account shows us that there is but little greater difference between the views held a century ago by Unzer and Prochaska, in Germany (and later by Laycock), and those most recently enunciated by Heidenhain and others, than can be accounted for by the alterations in terminology necessitated by a fuller knowledge of nervous physiology. It matters but little whether we say with the older observers that the cerebral centres are reflex no less than the spinal, and that consciousness is not essential to the acts performed under their guidance, or speak with more modern writers of the inhibition of the ganglion cells of certain regions of the cerebral cortex, or even bring the phenomena in question under the Spencerian formula of "dissolution," as applied by Dr. Jackson to the nervous system. But, doubtless, much light is thrown upon the subject of somnambulism by any or all of these figures of speech.

While somnambulism in its simplest forms is closely allied to dreaming, it is, as Dr. Tuke points out, to be regarded practically as pathological, and "in its severest forms approaches perilously near to nocturnal epilepsy." There would seem to be strong reasons for regarding these conditions as not entirely dissociated, though it may be difficult to prove statistically their concomitance in individuals. It is not unknown to medical men that sufferers from epileptic attacks, or obscure nervous symptoms, probably epileptic in character, have been subject to somnambulism during their childhood; and it is certainly sometimes very difficult to distinguish between the actions of a somnambulist and a victim of what is known as epileptic "vertigo," or "insanity." Dr. Tuke gives some very telling examples of this difficulty; and the case of one Treadaway, who not many years ago was tried for murder, but was shown to be epileptic by the medical enquiry instituted on his behalf, is an additional instance in point. An interesting account is given towards the end of the same chapter, occupying, too, the whole of the next, of a case of a girl, aged 16, under the care of Dr. Wilks, in Guy's Hospital, who was a valuable example of the close connection of somnambulism and hypnotism, for she both spontaneously walked in her sleep and was easily hypnotised (or "mesmerised"); the main difference noticed between these two conditions being that she appeared when sleep-walking to be less amenable to directions, and somewhat obstinate.

The third chapter deals with the physical and mental conditions in hypnotism, as far as they can be ascertained from observation and the description given by the hypnotised person of what he can remember after having been in the hypnotic state. One of the most noteworthy statements with respect to the physical condition of the hypnotised is that the respirations are much quickened, and M. Richer's belief is quoted, that the tracing taken with a pneumograph is a very useful test of simulated hypnotism. With the cataleptic subject, he says, the tracing is uniform in character from beginning to end; with the simulator it soon becomes irregular, through the disturbance of the respiration caused by muscular effort and fatigue.

The "subjective" symptoms of the hypnotised are treated in an interesting manner, being largely gathered from the description given by Mr. W. North, a physiological expert, who was frequently hypnotised in the presence of Dr. Tuke. The whole chapter is of some importance, as, though stating nothing new, it contains at least an original set of observations of a condition whose study is somewhat unduly neglected by the physicians of the day. The work ends with an account of the experiments in artificial somnambulism at the *Salpêtrière*, where, by the way, the various nervous phenomena, which erewhile were apparently referred by some of the observers there to the direct influence of metals, magnets, and solenoids, seem now to be relegated to their more proper ætiological sphere

[1] "Sleep-walking and Hypnotism." By D. Hack Tuke, M.D., LL.D. London: J. and A. Churchill, 1884.
"Der Hypnotismus." Von Dr. Conrad Rieger. Jena: Gustav Fischer, 1884.

of nervous impressionability, including "hypnotism" and "suggestion," a view which has been held from the first by a majority of English observers and students of these phenomena.

The German publication which treats of hypnotism is an interesting contribution to our knowledge of this condition. The conclusions arrived at by Dr. Rieger are in the main the same as are now generally held by physiologists. His work is based on observations both on animals and men and women. Dr. Rieger holds the view, and gives good reasons and examples for so doing, that those who are most easily hypnotised are certainly those who are recognisable as being more or less disposed to nervous and mental disturbances of various kinds. Although there are apparent exceptions to this rule, we are strongly in accord with this view, which indeed is now most generally held, and only eagerly repudiated by those who refuse to regard the subject of hypnotism from an unprejudiced standpoint, and prefer to speak, in psychical terminology of the condition being due to some unknown effluence proceeding from the agent to the patient.

EDINBURGH OBSTETRICAL TRANSACTIONS.[1]

This volume, though a thin one, is very rich in good matter. A wise editorial supervision appears to have been exercised, and we find less space than usual wasted in the description of commonplace specimens. The first paper of importance is "Some observations on the Bladder during the early Puerperium," by Dr. Halliday Croom. It is written in the true scientific spirit, and helps us a step forward in the comprehension of the puerperal process. It will advance Dr. Croom's reputation, and should be read by everyone interested in scientific midwifery. Dr. Peter Young contributes a good practical paper on "Hæmorrhage from the External Genitals during and after Labour." Dr. Brock writes "On Obstinate Vomiting in Pregnancy," and criticizes the theories advanced to account for it. He relates three cases under his own care, in each of which albuminuria was present, and was, in his opinion, the cause of the vomiting. The paper at least shows how much we have yet to learn as to the natural history of this condition. Professor Simpson contributes a paper "On the Prophylaxis of Ophthalmia Neonatorum." The greater part of it is compiled from German sources, but at the end is an account of the use during three months of Credé's method of prevention, in the Edinburgh Maternity Hospital. He also publishes a sort of clinical lecture, mainly compiled from the writings of others, on "Superinvolution of the Uterus." He describes the treatment of the condition in question, but does not discuss the most important point in that respect, viz., should it be treated at all? In addition to these papers he writes on the basilyst, and on axis traction forceps. Dr. David Berry Hart furnishes what is perhaps the most important paper in the volume, viz., a study of the anatomical conditions which lead to rupture of the vagina during labour. Like all Dr. Hart's work, it is able, original, and thoroughly scientific in spirit and in method. Professor Freund, of Strasburg, contributes a paper on "Extra-Uterine Gestation," but its value is not great, because in several of the cases the diagnosis was unverified. We have not exhausted the list of papers, but we have mentioned the chief. We congratulate the Society upon the production of so good a volume. Papers like those of Croom and Hart show that the teaching of Matthews Duncan is still not without influence on the younger obstetricians of Edinburgh.

[1] "Transactions of the Edinburgh Obstetrical Society," vol. viii Session 1882-3. Edinburgh: Oliver and Boyd, 1883, pp. 168.

ABSTRACTS AND EXTRACTS.

ARTIFICIAL ATTENUATION OF THE BACILLUS OF SPLENIC FEVER.[1]

By Drs. Koch, Gaffky and Loeffler.

Great discoveries in science, like great innovations in operative surgery, which are only successful in the hands of one discoverer or of one operator, are apt to be accepted with something more than the proverbial grain of salt. The great results which were expected to be obtained by M. Pasteur's method of artificial diminution of the infective powers of the milzbrand bacillus were somewhat dashed by the fact that certain competent observers had been unable to bring about any such diminution, although they had followed out M. Pasteur's plan with accuracy.

In order then to remove the uncertainty which such a want of agreement must entail, a series of "experimental studies" were undertaken by the three authors of the above article, with the results mentioned in the following abstract. The experiments having to be made, for the most part, upon large animals, a special building was erected having two divisions. In one of these the dissections were carried on, and in the other, arrangements were made for the accommodation of the animals to be experimented on. The floors were cemented and drained into a cistern, so that the accumulated fluids could be conveniently disinfected. The bodies, after dissection, were subjected to the action of steam at a very high temperature and so rendered innocuous. The apparatus employed as an incubator was that of d'Arsonval, of Paris, the capsules of Erlenmayer being used for the cultivation fluid, each capsule containing 20 cubic centimetres of chicken broth, neutralised with carbonate of soda.

The primary infective material consisted of dried blood, five years old, from an ordinary case of splenic fever.

An inoculation was made with this into a healthy mouse, which rapidly succumbed. A portion of its spleen was removed with antiseptic precautions and placed in the cultivation fluid. On the eighteenth day experimental injections were begun, two mice being inoculated every two days; portions of the virus being at the same time transplanted into preparations of peptone gelatine. Microscopic examination of the latter proved that the growth of the bacilli continued with unabated vigour; the effect upon the inoculated mice, however, became less and less from day to day, and after the twenty-second day no interference with their health could be observed. Although all these proceedings were conducted in exactly the same way, it was found that in the earlier inoculations the mice were affected in very different degree, some being immediately destroyed and others remaining but little injured by the process.

On further cultivation it was found that the attenuated virus remained as innocuous as heretofore, although no difference could be detected in the appearance of the bacilli. Some of the animals thus unaffected by inoculation were then re-infected with the original virus. In every case the animals died within three days, proving that no immunity whatever had been obtained. On making further investigations upon animals which had been

[1] Reports of the Imperial Board of Health in Germany, Edited by Dr. Struck, Vol. ii., 1884.

inoculated with the earlier and more active cultivations, a curious difference was found between the effect of the virus upon mice and guinea-pigs respectively. Even in cases where the mice were rapidly destroyed, the guinea-pigs remained wholly unaffected. With so marked a difference between small animals, it might well be assumed that the results in the case of sheep would present still greater variety.

Four sheep were inoculated with the attenuated virus, without being apparently affected thereby. Three weeks later they were very freely infected with virus, cultivated for twelve days, from a mouse which had died of milzbrand; guinea-pigs and mice being inoculated at the same time. The mice died, the other animals showed nothing more than slight febrile disturbance.

These animals were then infected with the original material and they all died, without exception, on the second day. Here also the previous inoculations proved of no avail in diminishing the effect of the poison. In M. Pasteur's experiments the cultivated virus was assumed to lose its active properties in proportion to the length of time that it was preserved at a constant temperature of 106° to 108° F., but in none of his communications was any indication given as to the means by which the degree of attenuation could be estimated at any given time. Two degrees called the first and second vaccine were employed in his inoculation experiments, and these have been understood to represent cultivations of twenty-four and of twelve days' duration respectively. A third degree was instituted in Koch's experiments consisting of a six days' cultivation. Inoculation of the twelve days' virus (second vaccine) was made into three sheep which had already been infected with the twenty-four days' virus (first vaccine). Of these, one died on the eighth day. The remaining two were inoculated with the six days' virus (third vaccine) and remained unaffected, some unprotected guinea-pigs being destroyed by it. After an interval of fourteen days these sheep were inoculated with the original virus and at the same time a control inoculation was made into one healthy unprotected sheep. The latter died at once of milzbrand, but one of the original sheep, already infected with the first, second and third vaccines, died also. The remaining sheep appeared ill, but recovered.

Thus only one in three of the sheep experimented upon can be said to have gained immunity by the inoculation of the attenuated virus—a result by no means in accord with the experience of M. Pasteur.

As the result of a second series of experiments upon mice, guinea-pigs and sheep, a marked variation was observed in the virulence of cultivations of different dates; thus, the virus which was very fatal on one day was found to be innocuous the next. This fact led to the supposition that in some of the specimens there might be a growth of spores taking place among the bacilli. Microscopic examination proved this to be the case.

A further series of experiments was then undertaken, the virus being daily transferred to a fresh glass of chicken broth instead of being left continuously in the same, so that the danger of any impurities gaining access to the fluid was lessened.

Four preliminary inoculations were made into the animals selected, the first being after a fifteen days' cultivation; the second after eleven days; the third after nine days, and the fourth after five days. A fortnight after the last of these inoculations the surviving animals were infected with the original material, and of seven sheep, eleven guinea-pigs and seven rabbits, only three sheep remained alive. These results, so different from those obtained by Pasteur, can only be explained by the assumption that the virulence of the infective material in his cases must have been considerably less than in the present instance.

The actual cause at work in the artificial attenuation of the virus has been assumed by M. Pasteur to be the oxygen present in the air.

The authors, disagreeing with this view, believe that the cause is to be found in the temperature under which the cultivation is carried on. Even with so slight a difference as one-fifth of a degree centigrade, they found that the infective power of the bacilli was materially affected. It was further proved that under some circumstances the attenuated virus may be made to recover its infective power; this point however will be made the subject of further investigation in the future.

The main fact that a certain degree of immunity is conferred upon sheep by means of inoculation, may be considered as proved by these experiments, in which a very virulent poison was used for the final infection. The amount of immunity against natural infection has yet to be considered. That a great difference may exist between natural and artificial infection is seen in the case of the bovine animals which are but little affected by inoculation of virus whilst they are peculiarly susceptible to natural infection.

Experiments upon this point were instituted by Professor Koch and his fellow workers. In order to avoid the possibility of abrasions of the mucous surfaces by prickly forms of fodder, they caused the animals to be fed upon slices of potato into which the virus, in various degrees of cultivation, was inoculated. The first series of experiments was made upon sheep, but in every case the virus consisted of bacilli alone in which no development of spores had taken place. Notwithstanding the very large doses of infective material thus introduced the sheep remained unaffected. A second series of experiments in which the virus contained spores in active development, proved fatal within two days to every one of the infected animals.

The *post-mortem* examination showed that, amongst other changes, severe œdema of the larynx had been induced. The three first stomachs were found intact, but very severe lesions had been set up in the small intestine, similar in appearance to those described by Waldeyer and others as Mycosis Intestinalis.

These changes were never found in the cases which died from inoculated virus, and the position in which they were discovered proves that the spores of the milzbrand are not destroyed by the acid contents of the stomach but that they are capable of further development in the intestine, through the unabraded mucous membrane of which they may find their way into the tissues.

As the result of a long series of investigations the following deductions were obtained. The natural form of milzbrand occurs by infection of the small intestine with small quantities of spores ingested with the food. The greater the number of these the more rapidly fatal is the disease; their action is as rapid as that of the bacilli when injected subcutaneously. Animals which have obtained immunity from the inoculated disease are not thereby protected from the action of the spores introduced by the mouth. M. Pasteur's views upon this matter cannot therefore be corroborated. A safe and practical method of protective inoculation has yet to be discovered.

SURGERY.

Professor Cheever on Etherisation.—Dr. Cheever, Professor of Surgery in Harvard University, read a very interesting paper at the last meeting of the American Surgical Association, which is reported in full in the *Boston Medical Journal* for May 29th. It was entitled "Some of the Dangers and Disadvantages of Anæsthesia," by which Professor Cheever means etherisation, as no other anæsthetic than ether is ever used in Boston. This he has employed for 26 years without ever having met with a death in consequence, and the largest statistics he is acquainted with only give one death in 23,204 cases. Still, as he observes, the vast advantages attendant on the use of ether and its wonted safety have obscured the dangers that may arise. Ether can kill, and there are operations which can be better done without it; and the object of this paper is to point out where are the dangers and disadvantages. (1) The danger in breathing ether is chiefly due to impeded or failing respiration. Temporary paralysis of the palatine muscles causes stertor, and the *falling back of the tongue* carries with it the epiglottis and closes the larynx. This may be met by drawing out the tongue; but when the operator believes that all is safe when he sees its tip at the incisors, he may be mistaken, for in this position it still blocks the entrance of air through the falling of the palate, and a sufficient passage for this can only be obtained by forcibly drawing the tongue out of the

mouth. "The larynx can also be opened by placing from behind the two thumbs under the angles of the lower jaw, and pressing forwards. The muscles being relaxed the jaw subluxates over the *eminentia articularis* or, rather, on to it, and carries forward the tongue, and with it the epiglottis, and thus opens the larynx, the mouth being already open." (2) Some persons are very sensitive to the irritating fumes of the ether, which give rise to a croupy respiration, a spasmodic stridor, followed by an incessant dry cough. Letting in more air relieves the spasm of the glottis, and the deeper etherisation quiets the tickling cough. In many, however, a new peril soon follows from a *great secretion of frothy mucus*, which overloads the air passages until a state like capillary bronchitis is produced, the livid patient being on the verge of suffocation, drowned in his own secretions. This is a very troublesome complication, requiring etherisation to be suspended for a considerable time. (3) Tetanic symptoms are often annoying and become dangerous if not relieved. Obstinate pronation of the forearm and wrist, inversion of the thumbs, opisthotonos, boring the head back in the pillow—these are evidences of suffocation, and are relieved by removing the ether and allowing a few inspirations of air. A most dangerous symptom is a *tetanic setting of the inspiratory muscles of the chest.* No air enters, respiration by the diaphragm fails to fill the lungs, and the patient will die, as in true tetanus, unless relieved by artificial respiration. This condition must not be confounded with that where the diaphragm is seen laboriously pumping a collapsed lung, the glottis being closed by the tongue or by spasm. (4) *Simple exhaustion* is another source of danger, the respiration failing so gradually as not to attract notice. In two cases cited death was obviated by recourse to artificial respiration; and a moment's inattention on the part of the surgeon might have led to fatal results. (5) *Disease of the heart* may cause death, "and yet I have repeatedly etherised patients with valvular disease with safety, by using caution, and giving them plenty of time. Ether is a stimulant to the circulation, and if given slowly, well mixed with air, and not pushed either to lividity or exhaustion, may be given safely in many cases of heart disease. (6) *Apoplexy*, sanguineous or serous, may follow the coma of etherisation in the old, or in drunkards. Atheromatous vessels may give way under the great congestion produced by full anæsthesia; and the "wet brain" of alcoholism may succeed the stupor of ether. (7) Passing from the dangers to the disadvantages of anæsthesia, and first in regard to its relation to *shock*. Although it lessens primary shock, it does not remove the secondary shock which follows an operation, and if long continued it adds to this. Long etherisation prostrates the patient. A frequent pulse, lowered temperature, drenching sweats, and nausea, are the sequences of an anæsthesia which lasts more than from half-an-hour to one hour. (8) A disadvantage is that anæsthesia *decoys the operator into delay and slowness in his work*. Formerly, celerity was the great object in view; and although the great change which has taken place in this respect adds greatly to the surgeon's comfort, and to his care and deliberation, it sometimes renders execution too cautious. The patient may benefit by greater skill and conservatism, but he suffers from prolonged exposure, tedious narcotism, and greater secondary shock. (9) *Drunkards* and steady drinkers yield slowly to the narcotism of ether. They pass through a long period of excitement and delirium before they get to sleep, and have an equally long and violent delirium on coming to. During etherisation they are subject to persistent or recurring tremors, which delay an operation, or jeopardise its safe execution. It is frequently not until the surgeon has finished, that they become quiet, and narcotised. (10) *Vomiting* and *lasting nausea*. Most patients vomit during or after anæsthesia, or both, and this is especially disastrous in abdominal sections, operations for hernia and upon the eye. After amputation, too, it may lead to hæmorrhage under the flaps of a stump. Nausea may last a couple of days, and may turn the scale against successful rallying from secondary shock. We know of no agent to arrest it. (11) "Intoxication and delirium on coming out of ether, are especially injurious after a fracture has been set; and except in a child, or to settle a diagnosis, the setting of broken bones is better done without ether. In nervous women the delirium assumes the form called hysterical. I have seen it last for 24 hours." Professor Cheever advises that extraction of cataract, tracheotomy for disease and paracentesis thoracis should be performed without anæsthetics; and he observes that it is a noteworthy fact that most of the fatal cases from ether have occurred during operations on the rectum, perinæum or vagina, this probably arising from the surgeon being at too great a distance to observe the mouth, the tongue, and the respiration, and the person administering the anæsthetic being incompetent. In such cases, "the operator should observe the levator ani, which moves with the diaphragm. This may be called perineal or pelvic respiration." When stertor occurs, the patient should be tipped forward, the cheek opened with two fingers, the tongue drawn out, and the fauces swabbed. To *ensure* safety, the surgeon should hear every respiration of the patient. "If you would avoid asphyxia, nausea, and headache, and *be safe*, use only the best and the purest anhydrous sulphuric ether.

Narcosis per Rectum.—The idea of producing narcosis by etherisation of the rectum would appear to have originated with Professor Pirogoff, in St. Petersburgh, in the year 1874. The subject has lately come to the front again in a description given by Dr. Molliere, of Lyons, of the method which he has employed with this object. He used the ether either cold, in the form of spray, or warm, by plunging the vessel containing it into hot water and allowing the vapour to pass into the bowel through an elastic tube. Ten minutes, at least, appear to have been necessary to produce insensibility. An interesting account of a recent case under his own care is given by Professor Starcke, of Berlin, in the current number of the *Berliner Klinische Wochenschrift*. For the operation of removal of the sub-maxillary gland, a male patient was etherised by means of the vapour conducted into the rectum through a long tube. About 30 grammes of the drug were used, an injection of morphia being given just previously. The patient bore the ether very well, and in about four minutes appeared to fall into a quiet sleep. In a few minutes more, however, he suddenly cried out, "I am bursting," and then for the first time it was observed that the abdomen was intensely distended. The insufflation of ether vapour was at once discontinued, but as the patient was completely insensible, the operation was proceeded with and concluded satisfactorily. For several hours the man remained in a state of absolute coma, but eventually recovered without any signs of rectal or other injury. A striking feature of this case was the complete absence of any cardiac disturbance, notwithstanding the fact that a very profound degree of narcosis had been reached, and Dr. Starcke notes this point as proving the fallacy of the prevalent idea that the subcutaneous injection of ether in cases of syncope, acts as a powerful cardiac stimulant. The exact quantity of ether required for complete rectal narcosis is not as yet determined. A vigorous and healthy sphincter is an essential element in the success of this proceeding; in a case treated in a similar manner to the above, the attempt failed signally from this cause alone, that the rectum was quite unable to retain the vapour for the necessary length of time to permit of its absorption. It is also of vital importance to guard against the possible condensation of the vapour within the bowel. The subject will probably be fully discussed at the forthcoming Congress at Copenhagen, where it will be introduced by Dr. Molliere himself. Meanwhile, Dr. A. Poncet, of Lyons, as the result of his observations made on cases and experiments upon animals (*Lyon Médical* 22nd and 29th June), observes that the alleged advantages attributed to the procedure, which, he thinks, are somewhat prematurely advanced, are too inconsiderable to be set against the accidents which may be induced by its employment. It is easy enough to regulate the quantity of ether that may gain admission; but the great point is that insensibility may be induced before all the ether is absorbed, and the withdrawal of the cannula has nothing to do with the action of the as yet unabsorbed ether. The surgeon is in fact placed in a dilemma. Either too little ether enters the rectum and anæsthesia is not obtained, or desiring to have complete

anæsthesia of a certain duration, he prolongs the administration and exposes the patient to a danger, the cause of which he cannot immediately suppress. This mode of anæsthesia, in M. Poncet's opinion, should be abandoned, failing as it often does in its production, and giving rise to more danger than attends the ordinary procedure.

NEUROLOGY.

Chorea.—In the *Bristol Medico-Chirurgical Journal* for June, Dr. E. Long Fox contributes an article on this subject, dealing with the aspects of its pathology and treatment only. As regards the former, we do not find ourselves by any means in accord with the views enunciated, for he treats of hemichorea and rhythmical chorea as both belonging to the same category as ordinary chorea. He very truly points out that various psychical phenomena are apt to appear, which, taken together with the motor phenomena, indicate very clearly the cerebral origin of the affection. He refers to cases of post-hemiplegic hemichorea in which lesions in, or in the neighbourhood of, the internal capsule have been found, and quotes three cases of his own in which young adults about the time of puberty had died of chorea, in one of which minute emboli were found in the vessels of the corpus striatum. The chorea of pregnant women he regards as reflex, and mentions rythmical chorea as an instance of reflex chorea from pelvic irritation, though he afterwards says that it is perhaps more nearly allied to hysteria than to chorea. He then goes on to speak of the milder forms, and of all cases in which there is no lesion, as chorea minor, a functional disorder. A functional disease he defines to be one where the lesions cannot be recognised easily or at all *post-mortem*, where the lesions are transitory or concerned with alterations between the relation of the blood supply to the tissues, whether dependent upon variation in the quantity or quality of the blood, changes from which perfect recovery is possible. Fright and mental worry act by producing an impression on certain regions leading to an impairment in their nutrition, insufficient food acts in the same way practically, the weakened heart failing to keep the nerve centres sufficiently supplied with blood. The feebleness and deficient quality of the blood supply resulting from rheumatism would explain the frequent appearance of chorea after that disorder. His conclusions, then, as regards chorea minor might be summed up in the proposition that it is a disorder due to debility producing an impairment in the nutrition of the co-ordinating centres of the brain corresponding to the part affected.

Enteric Paraplegia.—In a paper recently published in the *Boston Medical and Surgical Journal*, Dr. Roberts Bartholow revives the doctrine of reflex paraplegia, secondary to intestinal, renal and genital disease. As regards pathogenesis, he adopts the thesis put forward in 1861 by Brown-Séquard, who maintained that a strong contraction of the vessels of the cord, induced by reflex stimulation, is the essential condition of reflex paraplegia. A moderate degree of intestinal irritation suffices; for irritation of the end organs of the sensory nerves, not too violent and long continued, stimulates the vaso-motor centre in the medulla, and causes a general contraction of the arterioles; but excessive and protracted irritation depresses the vaso-motor centre and relaxes the vessels. Mere loss of blood in sufficient quantity will cause paraplegia (Kussmaul and Tenner); tying the abdominal aorta, and its obstruction by disease (Gull); embolism of the spinal vessels (Panum); large uterine hæmorrhage (Moutard-Martin)—have alike "stopped the spinal cord functioning." In other words, an insufficient blood-supply—an anæmia—is a cause of paraplegia. Dr. Bartholow gives cases of digestive disturbance, complicated with paraplegic symptoms, in which the latter disappeared under treatment successfully directed to the gastro-enteric troubles; and maintains "that there is a reflex paraplegia due to a functional disturbance of the intestine—enteric paraplegia." One of the means of determining whether a given paraplegia is functional—*i.e.*, due to a mere anæmia—or is dependent on a myelitis, is said to be the subcutaneous injection of strychnine. Dr. Bartholow also contends that there is another paraplegia, very different as regards origin and prognosis, which succeeds to certain cases of enteric, renal, or genital disease, but which is due to an ascending neuritis. The differentiation between reflex and secondary paraplegia is made by attention to the following points:—Reflex paraplegia is sudden, or at least rapid, in its development; secondary paraplegia develops gradually; the former is soon complete in all its symptoms; the latter attacks one spinal function at a time. Reflex paraplegia follows the fortunes of the producing malady; secondary paraplegia pursues an independent course, and when the alterations begin in the spinal elements, they proceed in their own way. Reflex paraplegia, of and by itself, never proves fatal, nor does it inflict permanent damage; secondary paraplegia may be the cause of death, and, if not fatal, effects lasting mischief.

A Premonitory Symptom of Locomotor Ataxy.—Another crisis has put forth a claim to recognition as caused by, and as a forerunner of disease of the spinal cord resulting in locomotor ataxy. For a long time we were content with gastric crises, then the various forms of pains proved their claim to recognition, then intestinal crises clamoured for a place, quickly followed by vesical, renal and laryngeal crises. And now (*Progrès Médical*, July) M. Pitres introduces us to crises of muscular stiffness (*courbature*) as an early symptom, and one owning the same cause as the other crises. In the three cases which he has recorded, these crises preceded all other symptoms of ataxy by a considerable period, varying in each case. The attacks were sometimes daily, sometimes occurring several times a day, sometimes absent for a few days; they were always transient, and they finally disappeared when the signs of ataxy became well developed. The affected regions were the sacro-lumbar region mostly and the limbs, the patient during the attack feeling as if he had had a long ride, or had over-exerted himself in swimming. Relief was generally obtained by sitting or lying down, there was no pain at all. M. Pitres considers that the attacks are due to affection of the sensory nerves of the muscles, and regards them as analogous to the gastric and other crises.

Epilepsy.—At the meeting of the American Medical Association in May, Dr. William Pepper read a paper on this subject, in the medical section. Epilepsy, he contended, depended upon a supremely unstable condition of one or more areas of grey matter, rendering them liable to sudden and violent discharges. The causes of this were numerous and varied, including heredity, nervous exhaustion, shock, sunstroke, impaired circulation, as in heart disease, and prolonged peripheral irritation. Epilepsy then was not a single definite disease, but merely a state of impaired nutrition and morbid instability of the grey matter, rendering it liable to sudden and violent discharges varying greatly in different cases. The degree of instability was the all-important point. Everyone was liable to convulsions, it was merely a question of the provoking cause required. The principles of treatment were to relieve anæmia, neurasthenia, and morbid sensibility by diet, change of occupation, change of residence, and rest. An absolute milk diet long continued was recommended in some forms. Nitrate of silver was good where there was gastro-intestinal irritation. The value of the bromides was recognised, but their use had some disadvantages, and required caution.—*Philadelphia Medical Times.*

The Knee-phenomenon in Children. — Pelizacus examined 2,403 children between the ages of six and thirteen, with respect to the presence or absence of the patella reflex. Out of all these children there was only one boy in whom he was never able to obtain the patella reflex, in a few others in whom it was not present at the first examination it was always found on subsequent trials. The boy in whom it was absent was apparently in perfect health. These results are very different from those obtained by Eulenburg and Berger, who found an absence of patella reflex in 4·8 and 1·56 per cent. of the children examined.—*Archiv für Psychiatrie, &c., Bd. XIV., Hft. 2.*

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 2nd, 1884.

H. Gervis, M.D., F.R.C.P., President, in the Chair.

The following specimens were shown :—

Dr. Godson. Phosphatic calculus, which caused a vesico-vaginal fistula.

Dr. Walter (Manchester). Transfusion apparatus. Double uterus with single cervix, and a deciduous substance expelled after labour for the fifth time. Pedunculated fibroid removed from a prolapsed uterus.

Spondylolisthesis.

A report of the Committee on Dr. Neugebauer's specimens of spondylolisthesis was read. They consider that the specimens bear out Dr. Neugebauer's views, which are essentially that the anterior half of the vertebra (typically the fifth lumbar) glides away from the posterior half, owing to congenital deficiency or fracture. Such predisposing causes may not result in spondylolisthesis without the operation of overweighting. Dr. Neugebauer states that Professor Lambl has withdrawn his theory of hydrorachis as a cause of spondylolisthesis.

Mr. Noble Smith's appendix to the report was read. He described specimens showing caries as probably a consequence of displacement.

On Fibro-cystic Myoma of Uterus—Septicæmia.

Dr. H. A. Lediard (Carlisle), read a paper on the above subject. The symptoms dated 12 months back, and included pain, bleeding, vomiting, and anæmia. The tumour felt cystic in parts and a bruit was heard over it. It reached 2½ inches above the navel. Afterwards diarrhœa set in and the temperature rose. After an examination by the sound, severe symptoms began, including the usual signs of peritonitis, and death occurred on the ninth day. The tumour grew chiefly from the posterior wall, and was partly cystic, as were both ovaries. The kidneys contained miliary abscesses ; the spleen was enlarged and soft, containing several recent infarcts. Liver fatty, lungs œdematous and congested. No trace of peritonitis was found, but no examination of the veins was made. The uterine mucous membrane was nowhere abraded. The case was brought forward chiefly to ascertain the opinion of the Society as to the cause of death.

The President said that Dr. Lediard was not singular in his experience. A small abrasion was sometimes fatal.

Note on a Condition observed in the Navel-cord of a young Infant.

Dr. John Williams read the above paper. The cord at birth appeared natural, on the second day the distal two inches had dried, while the proximal inch was succulent as at birth. In the next few days it broke down and became stinking. There was some bleeding on the fifth day ; the cord did not fall off till the ninth day, when it left a somewhat conical stump with an ash-grey surface, and a small red central depression. A thin sheath sloughed off the stump. Sir J. Paget, who saw the child, advised its removal (if it remained) by ligature, as in the case of common wart of the umbilicus. It disappeared altogether on the fourteenth day. The early appearance of the wart was remarkable, it had not been observed before the eighth day.

Remarks were made by the President. Drs. Edis, Williams and Herman.

Note on the Involution of the Puerperal Uterus in the Absence of the Ovaries.

This paper was also read by Dr. John Williams. The patient had had her left ovary removed in 1879, and her right was removed during labour in 1883 for cystic disease. Recovery uninterrupted. The involution was decidedly delayed, and on the twenty-eighth day it was still above the brim, the sound passing four inches. Seven weeks after delivery the uterus was of the usual size in the fourth week. Seven months after delivery it was smaller than the virgin organ, sharply anteflexed and the cavity was only two inches long. In this case the immediate effect of removal of the ovaries was retardation of involution, but the changes in the peritonæum caused by ovariotomy must be remembered. The ultimate result was exaggeration of the uterine involution, like senile atrophy.

The President endorsed Dr. Williams' view of the case.

Dr. Carter remarked on the rarity of super-involution. There exists without doubt a condition of atrophy of the ovaries in such cases, and their removal produced the effect which he should have expected.

On Fœtal Extensions or Retroflexions during Pregnancy.

Drs. Matthews Duncan and Hurry read a paper on the above. The authors have collected all examples of extension of the limbs or body of the fœtus occurring during pregnancy, and have tried to throw light on their causation. These extensions may be of a leg or of both legs, or of the whole body. They may be caused by malformation, goitre, amniotic bands, exomphalos, shortness of cord, and morbid conditions of the mother.

The President remarked on the special value of the paper, as throwing light on some of the causes of face presentations.

Dr. Champneys said that the only variety that he had himself observed was the *siège decomplété* (Lefour). In this, when primary, the legs after birth at once resume the fœtal attitude, and fly up over the shoulders in a most striking manner.

THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Saturday, June 7th, 1884.

Dr. Thudichum, President, M.D., F.R.C.P., in the Chair.

Littré's Operation.

Dr. H. Campbell Pope read a case of Littré's operation of inguinal colotomy for congenital deficiency of rectum. The child when first seen, two days after birth, was vomiting a greenish coloured watery fluid ; it was dusky in appearance and the abdomen was immensely distended with flatus, especially in the course of the colon. On examination per anum, the finger entered a cul-de-sac, about one inch in depth and of the ordinary calibre of an infant's bowel. No upper sac or protrusion could be felt, but when the child strained a general bulging could be distinguished. *Operation.*—Fifty hours after birth a trochar was passed from the extremity of the cul-de-sac into the pelvis in the usual direction of the rectum. This proceeding was followed by the escape of about two drachms of straw-coloured odourless fluid, and on introducing the trochar still further a little meconium escaped. As the fluid was apparently from the peritonæal cavity, it was decided to open the sigmoid flexure of the colon after Littré's method. An incision, about 1½ inches in length was made above and parallel to Poupart's ligament, and on opening the peritonæal cavity six drachms of straw-coloured fluid escaped. The large bowel was seen to end in a free floating extremity. It was opened by an incision in its long axis and fastened to the external opening by four sutures. No further vomiting occurred after the operation. The child did well for the first fortnight, and the wound healed, but after this time the gut began to evert and a large portion, three inches long, became constricted and ultimately sloughed off. This process again recurred, and a further portion, two inches in length, sloughed off. After this the progress was entirely satisfactory, and twelve months after birth a perfect artificial anus, capable of retaining fæces, resulted. Ultimately the child died of hæmorrhagic measles when thirteen months old.

Dr. Pope recommended in cases where the bowel could not be satisfactorily reached from the anal cul-de-sac that an exploratory abdominal incision should be made (as for inguinal colotomy) and the end of the bowel examined. If feasible it should be brought down to the anal cul-de-sac and fastened to it, an incision having been made in the

upper extremity of the cul-de-sac. If this could not be done, Littré's operation might be concluded.

Dr. TRAVERS did not advocate the use of the trochar, but careful dissection from the anus, keeping close to the sacrum. Where the gut could not be reached thus, he would perform Littré's operation.

Dr. THUDICHUM agreed with the suggestion as to an exploratory abdominal incision.

Dr. ALDERSON had a case in which, after a prolonged operation from the anus, the child died from collapse two hours after.

Dr. POPE in reply agreed with avoiding the use of the trochar, and condemned very prolonged operations from the anus.

The Rysselberghe Meteorograph.

Surgeon-Major T. H. HENDLEY read a paper on the above subject, which had been installed under his superintendence in the Meteorological Observatory of H.H. The Maharaja of Jeypore, in India. He thought a description would be interesting, as the study of meteorology was so intimately connected with the science of medicine, and as the instrument under notice was the most complete and perfect of its kind. The meteorograph, by means of a diamond point attached to the armature of an electro-magnet, engraves, at intervals of ten minutes, a series of graduated curves, easily convertible into figures, which represent the indications of all the ordinary meteorological instruments. The traces are made on a thin metallic plate stretched on a cylinder which revolves before the electro-magnet, and after the plate has been removed, and the lines deepened in an etching fluid, copies can be made of the record in any number in a copper plate press. M. Van Rysselberghe, the inventor, has moreover succeeded in making an arrangement by which he records automatically in Brussels, by means of the meteorograph, the readings of instruments which are kept at Ostend. The meteorograph is divided into several parts, (1) A battery of 20 meidinger elements; (2) A clock which sets free every ten minutes; (3) The motor, which controls the mechanical movements, viz., A, the revolution of the cylinder, and B, the up and down movements of a series of bars, which carry "automatic observers" for each of the instruments, the whole (or recording portions) of which are arranged on one plane; (4) The cabinet, which is fastened in a window before the motor. In this cabinet is also placed the commutator or distributor of the electric current. It will be sufficient to describe in full how the readings of one instrument, the dry bulb thermometer, are effected. A platinum probe, which is supported on one of the moveable bars in the cabinet, and is in connection with one pole of the battery, descends into the open stem of the thermometer, and as soon as it touches the mercury, which is in connection with the other pole, an electric circuit is completed, the probe remains suspended on a ratchet claw attached to the armature of a "relay," and the current passes into the engraving electro-magnet; its armature bearing the diamond point is pulled away from the cylinder against which it has been hitherto kept in contact by a spring, and the trace is broken. This trace is not re-established until a second probe touches the mercury in the wet bulb thermometer, and in this way, one after the other, all the readings are recorded by interruptions in a single line drawn round the cylinder. The trace for a second series of observations is made below the first by the descent of the engraving magnet which on an endless screw is easily affected as it ascends and descends. The rain-gauge is placed at some distance from the main instrument and the wind cups and vane are at the top of the building.

Surgeon-Major HENDLEY, in reply to Dr. Thudichum, said that there was a special department in India, under Mr. Blandford, F.R.S., meteorological reporter to the Government of India, which tabulated and utilised the observations made at all the principal towns in the country; issued weather forecasts that were every year becoming increasingly useful to agriculturists, sailors, and others; and exchanged publications with, or furnished copies of records to, foreign Governments and societies, and especially to the Signal Office in New York. The relation of meteorology to medicine was not lost sight of, but it would of course require time and labour to obtain valuable results, but that special importance would be given to the observations obtained by automatic instruments, such as the meteorograph, the only one he believed now in actual use in India, though a second obtained at the same time would probably be shortly installed. He added that many other automatic instruments were in use in the country, and in response to the query whether there were observations in the higher Himalayas, said that there was one at Leh which had been recently established.

Peripheral Lesions as the Exciting Cause of Chorea.

Dr. KILNER read a paper on the above subject. After a few preliminary remarks, seven successive cases were quoted in support of the theory. The lesions in these cases being rheumatism, dentition, ovarian, uterine, masturbation in the male, and various causes in one case. Afterwards it was stated that it was extremely probable that in nearly every instance an exciting peripheral lesion could be found as well as a central derangement. For shortness sake, the central derangement, whatever it may be, was called hyperkinesis, and the peripheral lesion excitor. It was considered that if the hyperkinesis was not very great, the excitor must necessarily be powerful, and, on the other hand, if the hyperkinesis be intense, the excitor need only be mild, and when both the hyperkinesis and the excitor were intense, a severe attack of chorea may be expected. It is also extremely unlikely that the hyperkinesis of itself produces chorea because before it becomes sufficiently great to cause an attack an excitor will arise, as the system can hardly be considered in a perfect state of health; but this excitor may be so slight as to be easily overlooked. In one of the cases quoted the natural function of menstruation was sufficient to determine an attack. The removal of the excitor is in many cases followed by a cure when the hyperkinesis is not very strongly developed, but when this is intense, the removal of the excitor is generally insufficient to produce a cure, as such slight causes are necessary to renew the attack these are likely to arise. If the dual theory be correct, the treatment of chorea must be directed to the removal of the excitor as well as of the hyperkinesis. No special treatment of the former, the only one coming into the scope of the paper, could be given, because it would include the whole range of medicine and surgery.

Dr. ALDERSON generally noticed rheumatism in connection with chorea.

Dr. THUDICHUM said the commonest cause of irritability was some chemical change in the nervous system; he instanced cases of injury causing chemical change.

Dr. KILNER said, in answer to a question from Dr. Alderson, the coarse changes occurring in the brain in hemiplegia furnished an excitor. It was still an undecided point whether athetosis occurred independently of a coarse cerebral disease. He had never met a case of chorea with the movements on one side and the loss of power on the other, and could not localize the seat of hyperkinesis in such a case.

Mr. H. H. TAYLOR showed two kidneys affected with cystic disease. They each weighed about 4 lbs. They consisted of congeries of cysts varying from the size of a marble to an orange; none of the cysts were within other cysts. They contained, some a clear fluid, others milky, some dark but clear, others dark and thick. No renal tissue could be found.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE XI.

AMBULANCE.

WE regret we cannot congratulate the Executive Council on any special excellence in this department. With scarlet fever and small-pox more or less endemic among us, with the promise of an outbreak of cholera prophesied from last year, and with considerable prospect of its being realised, it is disappointing to find an exhibition which is supposed to be devoted to the furtherance of the public health, so meagrely supplied with exhibits which can at all strictly

be described under the head of "Ambulance." This very meagreness, however, will have the advantage of demonstrating how ill prepared we are to meet any severe or unexpected strain on this part of our social system, should epidemic or war break out on any large scale. The Executive Council issued some memoranda for the guidance of exhibitors: under the head of "Ambulance" indicating "the articles and appliances which the Committee are anxious may be shown by the Army Medical Departments of various countries, the societies established to render aid to the sick and wounded in war, and other organisations which may be able and willing to contribute." First, as regards the Army Medical Departments, our own exhibits a more or less complete equipment, suitable for various circumstances and climates. Belgium sends a four-wheeled ambulance wagon and a four-wheeled pharmacy wagon, besides a few minor articles. It is not, of course, possible to speak offhand as to the relative merits of these exhibits without a more careful examination than is possible under the circumstances, but we incline to think that the Belgian ambulance wagon is better than the English one; while the English pharmacy wagon is much superior to the Belgian one. Speaking of the latter, however, neither the one nor the other can be considered sufficient without a convoy of *fourgons* to carry lint, bandages, splints plaster of Paris, and the like. The wagons are splendidly built, and suitable for the rough usage to which they will be liable in warfare. No other countries are represented in this department. Neither are there any exhibits from "Societies established to render aid to the sick and wounded in war." This we much regret. Both Germany and Russia have splendidly organised Societies, which could take the field within a few days' notice; and we believe France, Austria, and Italy are also not without their organised "Red Cross" Societies. An exhibit from Germany would have been very interesting and instructive on the one hand, and it would have made our own deficiency in this respect the more glaring and suggestive on the other. It is well known that a "National Aid Society" was founded in 1870 to render aid to the sick and wounded; an immense sum of money was subscribed, and a large balance remained in hand at the close of the Franco-German War (which called the Society into existence). A small portion of this balance was spent during the Turco-Servian War, but a considerable sum is still in hand. Under the circumstances, we think it very deplorable that the managers of this fund should make no sign on an occasion like this, when they have been appealed to by the Executive of a Health Exhibition so well and widely patronised as the present one. It is probably no exaggeration to say that this country is as ill provided in this respect at the present moment as when, fourteen years ago, surgeons, nurses, and hospital material were first sent to France and Germany, and when, thanks to a complete want of organisation, the proffered help was a trouble and nuisance, rather than of any real service to those to whom it was sent. We are very doubtful indeed whether in case of need we should find ourselves better prepared in these respects than we were at the time of the Crimean war, when so much mortality was due to the want of the most ordinary medical help and appliances.

St. John's Ambulance Association, which chiefly concerns itself with the care of accidents in civil life, makes a good show of various models of stretchers, for hand use, and on wheels. Many of these are very ingenious, and they are adapted to every variety of purpose. Mr. John Furley, who appears to be the active worker in this association, shows also under his own name a very light and inexpensive ambulance carriage for "use in small towns or villages." It is lightly built, has a canvas covering, runs easily, and is very suitable for the transport of accident cases. A stronger carriage, we hear, with wooden panels and sliding windows, is made on a similar pattern. A third carriage, somewhat more pretentious and of greater cost, is likewise exhibited. It possesses a very ingenious and useful method of swinging the couch on which the patient reclines, permitting of its being withdrawn to the foot of the carriage, thus saving much labour and jolting. None of these ambulances are built for infectious cases—though some might easily be adapted.

The Metropolitan Asylums Board make a very good show. There is their new ambulance wagon for infectious diseases, and this is really the class of ambulances that we most need in this city of London at the present moment. It is admirably constructed, in every way suitable for its special purpose, and is capable, with little trouble or cost, of being thoroughly disinfected after each time of using. The present theoretical arrangements of the Board appear as nearly perfect as they well can be, provided in actual practice they can be faithfully carried out. On page 7 of a little *brochure* issued by the Board—which ought to be in the possession of every medical man in London—it is stated that "within *five minutes*" of telegraphing to the Central Office, "an ambulance carriage, fully equipped and with an attendant nurse, is on the road to remove the case." This may be so, but we happen to know that it required two days a few weeks ago before the managers of a children's hospital in East London were able to get a case of small-pox moved from their hospital; and that a good deal of telegraphing backwards and forwards, and of going from pillar to post, had to be gone through. We just mention this, for it would be fatal to efficiency if the weak points of their organisation are not brought to light. In the *brochure* we are told that "application is made to the relieving officer, who gives an order for admission." It cannot be too well known that in certain parishes the relieving officer *dare* not give such an order without consulting his chairman; and that for the sake of saving a few shillings every kind of obstacle will occasionally be placed in the way of granting such an order. In other respects the arrangements appear to us admirable. An order having been granted, a telegram is sent to the Central Office; this office telephones to the nearest ambulance station to despatch an ambulance, and take the patient off to one of the hospital ships. Here the patient remains until the disease is over, and he is then sent to Darenth to recruit and get back his strength. In this way the risks of infection are reduced to a minimum. Mr. Norton exhibits a very handsome brougham ambulance, built for the London Fever Hospital; it appears to be well adapted to its purpose.

All these ambulance carriages are of a very expensive type, heavy, and highly finished. We think that something lighter and less expensive might be devised. There is no need of so much finish nor of such expensive wood, in view of the large numbers which are actually needed. If built somewhat more lightly, in the American fashion, and on india-rubber tiers, ambulance wagons might be made, we should think, equally well suited to their special requirements and at much less expense.

In this section are also found all kinds of sick-room appliances. They figure for eight-tenths of the entire show, and include sedan chairs of every conceivable shape; couches with and without internal machinery for turning them over and about, each one superior to every other, if we may believe the inventors; head rests, leg rests, sanitary mattresses, parlour-bed couches, mechanical easy chairs, self-propelling chairs, bed pans, bronchitis kettles, hammocks, and a thousand and one other things, such as we have described again and again. Not that we are insensible to the vast amount of inventive energy which all these things represent, or unmindful of the value of many of the inventions to the bed-ridden patient. We advise those who can to go and see for themselves; they will find much to admire and to wonder at, and not a little that may one day prove very useful.

MEDICAL NEWS.

Royal College of Surgeons of England. — The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 21st instant, viz:—

C. G. Grimmer, L.R.C.P., Edin., Bungay, Suffolk; A. L. H. Dixon, L.R.C.P., Edin., Ashford, Brecon; Coniston Spackman, L.R.C.P., Edin., Faringdon, Berks; A. W. Graham, L.S.A., Cambridge Street, S.W.; E. K. Campbell, M.B., Edin., Wimpole Street and H. J. Hewer, L.S.A., Highbury New Park, students of St. Bartholomew's Hospital; A. C. Purchas, M.B., Edin., Auckland, New Zealand; David Hepburn, M.B., Edin., Milnathort, N.B.; L. G. Mallam, M.B., Edin., Armidale, N.S.W. and F. A. Pockley, M.B., Edin., Sydney, N.S.W., of the Edinburgh School; Herbert Child, L.S.A., Headingley; John Welpton, Leeds and Ambrose Atkinson, Leeds, of the Leeds School of Medicine; H. W. McConnel, B.A., Cantab, Girvan, N.B.; F. J. Warwick, B.A., Cantab, Loughborough Junction, S.E. and Edwin Greenough, M.B., Edin., Wibsey, Bradford, of the Cambridge School; Henry Mason, Ullesthorpe and Alfred Williams, M.B., Glas., Glasgow, of the Glasgow School; Alfred Hanson, L.R.C.P., Edin., Launceston and A. J. Stiles, M.B., Edin., Spalding, of University College Hospital; H. S. Jones, L.S.A., Bromsgrove and Henry Simms, Stourbridge, of the Birmingham School of Medicine, and Robert Lawson, L.S.A., St. Andrews, Fife, N.B., of St. Thomas's Hospital.

Two gentlemen were approved in Surgery, and when qualified in Medicine will be admitted members of the College. Two candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for six months, and one for three months.

The following gentlemen passed on the 22nd inst., viz.:

D. M. Brown, M.B., Edin., Edinburgh; T. G. Churcher, M.B., Edin., Walworth Road, S.E.; Edward Walker, M.B., Edin., Huddersfield; J. C. Taylor, M.B., Edin., Windermere and R. H. A. Whitelocke, M.B., Edin., Jamaica, of the University of Edinburgh; J. E. Crisp, L.S.A., Lacock, Wilts; J. R. Heele, L.R.C.P., Lond., Southampton, and A. B. Blacker, L.S.A., St. George's Road, S.W., of St. Thomas's Hospital; Horace Jeffries, L.S.A., Bromsgrove, of the Birmingham School of Medicine; J. F. Mirza, L.R.C.P., Lond., Bombay, of the Bombay Medical School; A. W. Collins, L.R.C.P., Lond., Rainhill, Lancashire, of the Liverpool School of Medicine; H. M. Hughes, M.B., Durham, Harrowgate, of the Newcastle School of Medicine; W. W. F. Fletcher, M.B., Cantab., Argyle Square, of St. Bartholomew's Hospital; R. N. Jones, L.R.C.P., Lond., Swansea, of King's College Hospital; G. F. Welsford, M.B., Cantab., Winterbourne, Isle of Wight, of the Cambridge School, and H. C. Thurston, L.R.C.P., Lond., Thornbury, Bristol School of Medicine.

Three gentlemen were approved in Surgery, and when qualified in Medicine will be admitted members of the College. Eight candidates were referred for six months, and two for three months.

The following gentlemen passed on the 23rd inst., viz.:

Edwin Roberts, Leeds, student of the Leeds School of Medicine; J. H. Ferguson, M.B., Ed., student of the University of Edinburgh; Frederick Bryan, M.B., Durh., Melbourne, of St. Thomas' Hospital; R. T. Williamson, L.S.A., Burnley, Lancashire; James Mc F. Clarke, L.R.C.P., Lond., Bolton, and C. S. Earle, L.R.C.P. Ed., Manchester, of the Manchester School of Medicine; G. R. Beardmore, L.S.A., Islington, N., of the Sheffield School of Medicine; G. S. Gent, L.S.A., Bristol, of University College Hospital, and Robert Trevor, L.R.C.S., Lond., Halsey Street, S.W., of St. George's Hospital.

Six candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained Medical Qualifications, were also admitted Members of the College, viz.:—

J. E. McDougall, L.R.C.P. Edin., Walton, Liverpool, Student of the Liverpool School of Medicine; C. J. Sharp, L.R.C.P., Lond., Liverpool, of St. Mary's Hospital; G. H. Weston, L.S.A., Bognor, and G. A. Shackel, L.S.A., Reading, of St. Thomas's Hospital; R. T. Bowden, L.S.A., Tenbury, Worcestershire, and R. W. Quennell, L.R.C.P. Ed., Brentwood, of St. Bartholomew's Hospital.

Six candidates passed the examination in Surgery, and when qualified in Medicine and Midwifery will be admitted Members of the College. One candidate was referred for three months, six for six months, and one for nine months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 17th, 1884:—

Philip Henry Nutting, Hasely Hall, Warwickshire; Thomas Whitworth Sewell Morgan, Roupell Park, Streatham Hill; Francis Harrison Preston, 11, Ampton Street, Gray's Inn Road; George Arthur Shakel, Erleigh Court, near Reading; Thomas Armand Bourne-Soden, Newcastle-on-Tyne; James Dibble Staple, 99, Hereford Road, Bayswater; Sydney Charles Ernest Wright, 153, Upper Kennington Lane, Vauxhall.

The following gentlemen also on the same day passed the primary professional examination:—

Ralph Holyoake, London Hospital; Bernard Volckman, London Hospital.

Naval Medical Service.—Staff-Surgeon William Middleton Power, has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

New Hospital at Rugby.—A new hospital, built at the cost of about 20,000*l.* and presented to Rugby by Mr. and Mrs. R. H. Wood, Penrhose House, Rugby, who have also endowed it with a further sum of 10,000*l.*, was opened by the founders on the 17th instant. It stands in grounds 10 acres in extent, on the south side of the town, facing the open country.

Social Science Association.—At the annual business meeting of members held on Tuesday last, the Right Hon. G. J. Shaw Lefevre, M.P., was elected President for the year 1884-85, while in the Department of Health, Dr. Norman Chevers, C.I.E., was elected President, and Mr. H. H. Collins and Dr. Edward Seaton, Hon. Secretaries.

Professor Langer.—The Emperor of Austria has just conferred upon Hofrath Dr. Carl Langer, Professor of Anatomy in the University of Vienna, the *Ritterkreuz* of the Order of Leopold. This high distinction, in acknowledgment of the merits of this learned savant, indefatigable teacher, and able referee of the Minister of Public Instruction, has given great satisfaction in professional circles.

Subcutaneous Injections in Cholera.—Dr. Roussell, the inventor of direct transfusion, has, we are informed from Paris, resumed his former experiments on the hypodermic injection of the salts of copper which he regards as a prophylactic against cholera. He has also constructed a new apparatus by means of which large quantities of albuminous fluids may be applied hypodermically in the algid stage of cholera.

London School of Medicine for Women.—Surgeon-General Evatt, M.D., Army Medical Department, delivered a lecture on the 15th instant to the students of the London School of Medicine for Women. He pointed out the shortcomings of the present system of field hospitals, and desired to rouse the attention of the public, and especially the medical profession, to the necessity of organising in time of peace a system that would bear the test of war. He made suggestions as to the manner in which the women students could co-operate in such a plan.

"Facts Concerning Vaccination."—At a meeting of the Vaccination Officers' Association, held on Saturday last, a cordial vote of thanks was given to the National Health Society for issuing their pamphlet entitled "Facts Concerning Vaccination." The association expressed their appreciation of the "thoughtful kindness which prompted the society to assist the vaccination officers of the Metropolis in the discharge of their often difficult duties." We are informed that the pamphlet in question has now been distributed from house to house in most of the districts in the Metropolis where small-pox is epidemic, and that the demand for it still continues. Something like 150,000 copies have already been issued since the present epidemic began.

Royal College of Surgeons.—From the last annual report of the receipts and expenditure of the Royal College of Surgeons, which has just been published, it appears that the former amounted to 20,024*l.* 0*s.* 5*d.* derived principally from fees paid by candidates on examination, viz., 16,917*l.* 7*s.* Fees paid on admission to the Council, Court of Examiners, and Fellowship amounted to 94*l.* 10*s.* Rent of Chambers adjoining the College, 1,530*l.* 18*s.* Dividends on Stock, 1,182*l.* 19*s.* 3*d.* The expenditure amounted to 20,046*l.* 7*s.* 4*d.*, the largest item of course being in fees paid to Council and Members of the Court and Boards of Examiners, viz., 7,674*l.* 4*s.* The next largest in amount was for salaries and wages for the three departments, Office, Museum, and Library, viz., 3,784*l.* 14*s.* In the extraordinary expenditure, 700*l.* appears in honoraria to Mr. Trimmer, Dr. Goodhart, and Mr. Doran, and taxes, stamps, &c., 1,469*l.* 9*s.* 3*d.*

The Prevention of Cholera in Dublin.—A special meeting of the Public Health Committee of the Corporation of Dublin was held on Monday, the 21st instant. The meeting was convened for the purpose of taking into consideration a letter, dated the 19th instant, from the Local Government Board for Ireland, requesting the observations of the Corporation of Dublin on the subject of its appointment to superintend and see to the execution of any regulations which it may be necessary to make under the 149th section of the Public Health (Ireland) Act for the prevention of the spread of disease in the City of Dublin, should the city be threatened with or affected by cholera. The following resolution was adopted:—"Resolved that, having considered the letter of the Local Government Board of the 19th instant, should the Board select this Committee as the Urban Sanitary Authority, the sole authority for administering the provisions of the Public Health Act and the Epidemic and other Diseases Prevention Act, 1883, the Committee recommend the Municipal Council to accept the responsibility of carrying out the regulations of the Local Government Board, believing that a divided responsibility would militate against the efficient supervision and conduct of the duties required under them. The Committee make this recommendation in the full assurance that the Council will have the cordial co-operation of the Guardians of the North and South Dublin Unions, by affording us every facility for carrying out the regulations made under the Act, and placing at our disposal their machinery, provided that the Local Government Board makes arrangements for the expense to be incurred being distributed over the North and South Dublin Union areas."

Professor Rutherford on the Medical Bill.—Professor Rutherford concludes a long letter to the *Scotsman*, chiefly devoted to the castigation of Professor Struthers, with the following remarks on the Medical Bill: "It was manifestly drawn up on the line of removing all medical licensing powers from universities and corporations, and transferring them to a single medical board in each division of the kingdom. The medical and surgical corporations would ultimately have been ruined, and the universities seriously injured, by the Bill as it first appeared last year. No doubt some of its dangerous clauses have been removed, and if Sir Lyon Playfair's amendment regarding coadjutor examiners is carried, it will be very much improved. But the principle of practically superseding the present medical authorities by the proposed medical boards will still be shown, even if the Playfair amendments are carried, in the method of electing the members of the general council, which is to be no longer by the medical authorities themselves, but by the medical boards, and I have shown how it may come about that the largest medical educating authority in Scotland may come not to be represented at all on the medical council. Surely such a contingency was never contemplated by the framers of the Bill. The whole machinery of the medical boards will be cumbersome, expensive, and not conducive to harmony. Additional examiners, or assessors appointed by the General Medical Council to attend examinations by the various authorities, would have attained the necessary object of keeping the examinations up to a proper standard perfectly well; and other necessary reforms could have been attained by a Bill much simpler than the present one." It is very curious that the champions of the examining bodies cannot be got to understand that one of the main virtues of the Medical Bill is, that it puts an end to direct representation of corporations on the medical council.

St. Thomas's Hospital Volunteer Ambulance Bearer Company.—On Wednesday last the Company was inspected by Major-General Elkington, C.B., Deputy-Adjutant General, Dr. Crawford, Director-General of the Army Medical Department, and his staff. A large company witnessed the proceedings, among whom were Lord Morley, Under-Secretary of State for War, Mr. Brand, Surveyor of Ordnance, Surgeon-General Hanbury, K.C.B., Baron Mundy, Dr. Billings, of the Surgeon-General's Department, Washington, Sir Frederick Pollock, Professor Longmore, Mr. Ellissen, of the French Red Cross Society, Mr. Furley, Mr. Archibald Forbes, Brigade-Surgeon Nash, Surgeon-Major Roe, Surgeon-Major Evatt, Surgeon Cross, Mr. Cantlie, Sir William MacCormac, President of the St. Thomas' Ambulance Association, and Dr. Ord, Dean of the Medical School. The company numbers about 90 members, of whom 64 were present on parade, dressed in default of a regulation uniform in white shirts, white flannel caps and trousers, and a Geneva badge on the right arm. By kind permission of the Archbishop of Canterbury the drills have taken place in the grounds of Lambeth Palace, and here the inspection was held. The company, under the command of Mr. Makins and Mr. Piggott, marched past with stretchers, and the stretcher drill was then proceeded with. After some preliminary marching each stretcher detachment was sent out independently to search for wounded, the latter being scattered in pairs about the grounds labelled with the injury supposed to have been received. Dressings were applied, the severely wounded placed upon the stretchers and carried back to the hospital tents in the rear, those with slight injuries marching back by the side of the stretcher. The dressings on the wounded men were then inspected by General Elkington and Dr. Crawford, the stretchers were refolded and the men reformed in close order. At the close of the drill, which lasted an hour, General Elkington addressed the company in terms of high praise and commendation. He congratulated them on their numerical strength, appearance, and excellent performance. He trusted that by next summer the corps would have increased and the movement extended, so that an efficient ambulance department would be added to that important organisation, the Volunteer Force of this country. Dr. Crawford added some valuable remarks from the medical point of view, and Lord Morley spoke in praise and encouragement, pointing out that such beginnings of ambulance work in a hospital among young men, who would in a few years become qualified to practice, would be the means ultimately of extending the instruction throughout the country.

South London School of Pharmacy.—The following is the list of the successful competitors at the school examinations, held from the 26th June to the 5th July, 1884:—Senior Chemistry, Medal, R. Wilkinson, Certificates (equal), D. Arnott and F. Jackson; Junior Chemistry, Medal, W. Rushton, Certificate, W. Holme; Botany, Medal, T. J. Clark, Certificate, R. Atkinson; Materia Medica, Medal, W. Holme, Certificate, T. J. Clark; Pharmacy and Practical Dispensing, Medal, J. E. Brown, Certificate, W. Rushton; Extra Certificates of Merit, Messrs. Coleman, Cooper, H. Jackson, King, Matthews, Taylor, Ward, and Williams.

Professor Hoffmann. — Several American chemists recently had a large gold medal of Geheimrath A. W. Hoffmann, of Berlin, struck at Philadelphia, in remembrance of his visit to the United States last year, and in recognition of the great services he has rendered to science and industry in the province of organic chemistry. On one side of the medal there is a well executed portrait of the professor; and on the obverse the inscription "To A. W. Hoffmann, from his friends and admirers in the United States of America."

APPOINTMENTS.

Anderson, James, M.D., M.R.C.P. Lond.—Medical Registrar to the London Hospital, *vice* C. F. Coxwell, M.B., M.R.C.P. Lond., resigned.

Carroll, E. R. W., M.R.C.S., L.R.C.P.—House Surgeon to the Royal Westminster Ophthalmic Hospital.

Champ, J. H., M.B., Lond.—House Physician to Guy's Hospital.

Clegg, W. T., M.R.C.S., L.R.C.P.—Registrar to the St. Paul's Eye and Ear Infirmary, Liverpool.

Davies, John, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the First District, Bath Union.

Davies, W. T. F., M.B., Lond.—House Surgeon to Guy's Hospital.

Fort, J. W., L.D.S.R.C.S.—Honorary Dental Surgeon to the Lancaster Infirmary.

Henry, R., M.D.—Medical Officer of Health to Comber Dispensary District.

Hill, J. Higham, M.D., F.R.C.S.E.—Government Medical Inspector for the United States of America at the Port of London.

Jones, M. P., M.B. Lond.—Resident Obstetric Physician to Guy's Hospital.

Macindoe, Alexander, M.B. and M.C. Glas.—Medical Officer to the Ashley District, Drayton Union.
Manley, J. H. H., M.B., B.C. Cantab.—Resident Obstetric Physician to Guy's Hospital.
Meyer, C. H. L., M.B., B.S., Lond.—House Surgeon to Guy's Hospital.
Phillips, F. B. W., M.R.C.S.—Resident Obstetric Physician to Guy's Hospital.
Piggot Allen, M.R.C.S. Eng. and L.R.C.P. Edin.—Medical Officer to the Fifth District Bromley Union, in succession to Mr. J. H. Booth, resigned.
Ryle, R. J., M.B., Oxon.—House Surgeon to Guy's Hospital.
Scott, T. H., M.B., B.S., Univ. Dub.—Assistant Surgeon to the Adelaide Hospital, Dublin.
Spurgin, W. H., M.R.C.S.—Medical Officer of Health for the District of Maryport, *vice* Dr. Pearson, resigned.
Targett, J. H., M.B., Lond.—House Physician to Guy's Hospital.
Worthington, S., M.B., Lond.—House Physician to Guy's Hospital.

VACANCIES.

Bristol Dispensary.—Surgeon. Candidates must possess a diploma in surgery from the Royal College of Surgeons of England, Scotland or Ireland, or from the Faculty of Physicians and Surgeons of Glasgow, and in addition to such diplomas in surgery, must possess a legal qualification to practise Medicine in Great Britain and Ireland, and be duly registered according to the regulations of the Medical Act. For salary and other particulars, apply to Mr. E. Stock, 57, Queen Square, Bristol, to whom testimonials must be sent on or before July 31st.
City of Liverpool Temporary Small-Pox Hospital.—Resident Medical Officer. (*For particulars see Advertisement.*)
Gravesend Hospital.—House Surgeon. Salary, £80 per annum, with board, lodging and washing. Candidates must be members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications, with testimonials must be sent to the Honorary Secretary, on or before August 12th.
Houghton-le-Spring Union.—Medical Officer to the Newbottle District, in succession to Mr. George Chalmers, resigned. Area, 5,380 acres. Population, 7,883. Salary, £30 per annum.
London Hospital Medical College, Turner Street, Mile End, E.—Two Assistant Demonstrators of Anatomy. (*For particulars see Advertisement.*)
Martley Union.—Medical Officer to the Witley District, in succession to Mr. J. N. Greensill, resigned. Area, 12,798 acres. Population, 2,697. Salary, £70 per annum.
Martley Union.—Medical Officer to the Martley District and the Workhouse, in succession to Mr. Edward S. Greensill, resigned. Area, 10,816 acres. Population, 2,166. Salary, £60 per annum. Salary for Workhouse, £30 per annum.
Paddington Green Children's Hospital, London.—House Surgeon. Salary, £80 per annum, with lodging. Applications to be sent to the Secretary before July 28th.
Royal Hants County Hospital, Winchester.—House Surgeon. Salary, £100 per annum, with board and lodging. Candidates must possess a diploma from the Royal College of Surgeons in England, or the surgical diploma of a Royal College or a University in England, Scotland, or Ireland, and also a degree in Medicine from one of the said Universities, or a licence from the Royal College of Physicians in London, or a licence from the Society of Apothecaries. Candidates shall not be eligible for the office without unexceptional testimonials of moral character. Applications with testimonials, to be addressed to the Secretary at the hospital, on or before August 2nd.
Scarborough Hospital and Dispensary.—Assistant House Surgeon and Dispenser. Salary, £50 per annum, with board and lodging. Testimonials to be addressed to the Secretary not later than July 26th.
Stronsay Parochial Board.—Medical Officer and Vaccinator. (*For particulars see Advertisement.*)

DEATHS.

Godfrey, R., M.R.C.S., formerly of Bath, at Epsom, on July 12th, in his 92nd year.
Hawkins, C. H., F.R.S., F.R.C.S., at 26, Grosvenor Street, on July 20th, in his 86th year.
Knaggs, Henry, M.R.C.S., &c., at 189, Camden Road, N.W., on July 17th, in his 86th year.
Morris, Henry, F.R.C.P., L.R.C.P., of Fern Bank, Glossop Road, Sheffield, on July 11th, aged 45.
Searle, J. L., M.D., at Ashton House, Steeple Ashton, on July 17th, aged 83.
Taylor, A. A., M.R.C.S., at Bradbourne House, Acton, on July 18th, aged 28.

NOTES, QUERIES, AND REPLIES.

WHEATLEY MEMORIAL FUND.

[TO THE EDITOR OF THE MEDICAL TIMES.]

Sir,—The Committee of the Wheatley Memorial Fund have now closed the subscription list, and desire me to announce a final list of donors, which I shall be obliged if you will insert in your next issue.

The Committee also authorises me to beg leave to publish the balance sheet of the Treasurer of the Fund, and to inform the Subscribers that the Treasurer has handed over £804 6*s.* 1*d.*, after payment of expenses, to the beneficiaries of the Fund, in the proportion of two-thirds to Miss Maria Wheatley, the sister, and one-third to Miss Mary Caroline Wheatley, the niece of the late Mr. B. R. Wheatley.

Balance Sheet.

The Treasurer in acct. with the Wheatley Memorial Fund.

Dr.	£	*s.*	*d.*	*Cr.*	£	*s.*	*d.*
Subscriptions	809	15	0	Postage	7	10	7
For Postage (paid by Dr. Wilson Fox and the Treasurer)	7	10	7	Printing, Stationery, &c.	5	7	10
				Bank Charges	0	1	1
				Cash in hand	804	6	1
	£817	5	7		£817	5	7

(Signed) J. Cooper Forster,
July 21st, 1884. Treasurer.

I am, Sir, yours &c.,
Berkeley Hill, Hon. Secretary.

Royal Medical and Chirurgical Society.
53, *Berners Street, W.*
July 21st, 1884.

Final List of Subscriptions.

Mr. J. Moncrieff Arnott, £10 10*s.*; Dr. Bigelow (Boston, U.S.A.), £10 10*s.*; Dr. Hare, £7 7*s.*; Dr. Wilson Fox (additional for postage), £6 9*s.* 7*d.*

The following have sent five guineas each:—Dr. George Johnson (2nd donation), Dr. Wickham Legg, Dr. Ord, Mr. Richard Quain, Dr. Russell Reynolds, and Dr. Walshe.

The following has sent five pounds:—Dr. Garrod.

The following have sent three guineas each:—Dr. Blandford, Mr. Thomas Bryant, Mr. MacCarthy, and Dr. Ringer.

The following have sent two guineas each:—Dr. Graham Balfour, Mr. Richard Barwell, Sir William Bowman, Bart. (2nd donation), Dr. Broadbent, Dr. Lauder Brunton, Mr. W. O. Chalk, Dr. Sydney Coupland, Mr. C. C. Dent, Dr. Dickinson, Dr. Fenwick, Dr. Fish, Sir William Gull, Bart. (2nd donation), Dr. Hawksley, Mr. Timothy Holmes, Dr. Marcet, Mr. John Marshall (2nd donation), Dr. John Ogle, Sir James Paget, Bart., Dr. Parken, Dr. Reed, Dr. Roper, Dr. Burdon Sanderson, Dr. Sankey, Mr. W. S. Savory (2nd donation), Dr. Shepherd, Sir Spencer Wells, Bart. (2nd donation), Dr. Wilks, and Sir Erasmus Wilson (2nd donation).

The following have sent one guinea each:—Dr. Althaus, Dr. Barratt, Dr. Ballard, Dr. F. Beach, Mr. E. U. Bury, Dr. Biss, Dr. Mitchell Bruce, Mr. George Eastes, Dr. de Fonmartin, Mr. Cooper Forster (additional Treasurer's postage), Mr. John Gay, Dr. Goodhart, Mr. W. H. A. Jacobson, Mr. Kiallmark, Sir William Mac Cormac, Mr. H. Page, Dr. T. Niven (Fife), Mr. Laidlaw Purves, Dr. Savage, Dr. Semple, Dr. Spitta, Mr. Waren Tay, Dr. Frederic Taylor, Mr. Thomas Taylor, Mr. C. S. Tomes, Mr. Edgcumbe Venning Dr. Hermann Weber, and Dr. Samuel West.

Royal College of Surgeons, Examination Papers.—At the final or pass examination for the diploma of membership of the Royal College of Surgeons of England, the written portion of which was commenced on Friday the 18th instant, the unprecedented large number of three hundred and fifty-two candidates presented themselves, to whom the following questions on Surgical Anatomy, and the principles and practice of Surgery were submitted, when they were required to answer at least four out of the six questions, including one of the first two, between 1.30 and 4.30, viz.—1. Mention the several structures which must be divided in removal of one half of the Inferior Maxilla. 2. Describe the Ligaments of the Hip-Joint, and state how they are affected in Dislocation upon the Dorsum Ilii. 3. Describe the treatment you would adopt in a case of extensive Lacerated Wound of the Scalp, and mention the evil consequences which may follow this injury. 4. Describe the varieties of Keratitis. 5. State the various complications of Fracture of the Ribs and their treatment. 6. Mention the complications that may occur in the course of Gonorrhœa in the male and female respectively. Explain their modes of origin.

On the following day, the 19th instant, the following questions on Midwifery and the Diseases of Women were submitted to the candidates when they were required to answer three out of the four questions between 12.30 and 2 o'clock, viz.—1. Describe the Mechanism of Labour with the child in abdomino-anterior position and the breech presenting. 2. What means would you adopt with a view to prevent Hæmorrhage after Labour? 3. What is meant by concealed accidental Hæmorrhage? What are its symptoms, and how would you treat it? 4. What conditions produce enlargement of the Cervix Uteri? How would you distinguish between them?

The following were the questions on the principles and practice of Medicine, when candidates were required to answer three out of the four questions, including No. 4., between 2.30 and 4.30 o'clock, viz.—1. Discuss the symptoms and production of General Dropsy, indicating the causes on which it may depend, the manner in which the several varieties can be distinguished, and the treatment called for in different circumstances. 2. What are

the causes and symptoms of Bell's Paralysis, or Paralysis of the Portio Dura? Point out the distinctions between this condition and the paralysis observed in Hemiplegia. 3. What are the causes, signs, and symptoms of Pneumothorax? 4. State the therapeutical effects of the following drugs; and mention their officinal preparations, and their doses when for internal administration :—Silver, Lead, Zinc, Antimony, Digitalis, Colchicum, Belladonna, and Stramonium.

M., St. George's Hospital.—The late Mr. Cæsar Henry Hawkins was admitted a member of the Royal College of Surgeons, December 7th, 1821, made one of the honorary fellows of the College in the first batch, December 11th, 1843, a member of the Council in 1846, a member of the Court of Examiners and Hunterian Orator in 1849. Twice President of the College, viz., in 1852 and 1861. Dr. Francis Hawkins, the first Registrar of the General Medical Council, was his brother.

COMMUNICATIONS RECEIVED—

Dr. W. Alexander, Liverpool; Mr. Edmund Owen, London; Mr. Berkeley Hill, London; Dr. H. Donkin, London; Dr. Clifford Beale, London; Dr. Willoughby, London; Mr. Lawson Tait, Birmingham; Mr. Pridgin Teale, Leeds; The Hon. Secretary of the Obstetrical Society, London; Messrs. Kingsbury & Co., London; Mr. Cowell, London; Mr. W. Hay, Hull; The Secretary of the International Health Exhibition, London; Mr. Alex. Meighan, Glasgow; The Hon. Secretary of the Bread Reform League, London; Mr. Clement Lucas, London; The Sanitary Commissioner for the Punjab, Lahore; Dr. Chapman, Paris; The Secretary of the Apothecaries' Society, London; Our Liverpool Correspondent; Dr. Daunt, St. Paulo, Brazil; The Registrar-General for Scotland, Edinburgh; The Secretary of the Faculty of Medicine, the University, Edinburgh; Mr T. M. Stone, London; Dr. O. Sturges, London; Mr. Mayo Robson, Leeds; Dr. H. Rayner, Hanwell; The President of the St. Thomas's Hospital Volunteer Ambulance Company; Surgeon-General John Murray, London; Mr. J. Martin, Bolton; The Hon. Secretary of the London School of Medicine for Women, London; The Secretary of the Balloon Society of Great Britain, London.

BOOKS RECEIVED—

Annual Report of the Provincial Board of Health of Ontario, for the year 1883—Report on the London Water Supply, for June 1884—Wintering Abroad, by Dr. Alfred Drysdale — Poisoning by Cannabis Indica, by A. B. Cook, A.M., M.D.—Annual Report of the Fever Hospital and House of Recovery, Cork Street, Dublin—Preliminary Programme of the National Association for the Promotion of Social Science—A Few Valuable Hints for the Prevention of Cholera, by A. Fitzgerald, M.D., B.A.—Proceedings of the Society for the Study and Cure of Inebriety—Electro-Therapeutics, by R. W. Amidon, A.M., M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal—Louisville Medical News — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften —Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad — Société Médicale — Scienze Mediche — Revue de Chirurgie — Revue de Médecine — The American Journal of Obstetrics—The Money Market Review—North Carolina Medical Journal—The Dublin Journal of Medical Science—The Asclepiad—The Canada Lancet—Revista de Medicina—Revue D'Hygiene—The American Journal of the Medical Sciences.

APPOINTMENTS FOR THE WEEK.

Friday, July 25 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, July 26.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, July 28.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

International Health Exhibition (Conference on School Hygiene).—Prof. De Chaumont, "School Dietaries."

Tuesday, July 29.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

International Health Exhibition (Conference on School Hygiene).—"Over-pressure in Schools." Communications by T. Pridgin Teale, F.R.C.S., C. Kegan Paul, M.A., R. Brudenell Carter, F.R.C.S., Sir Joseph Fayrer, F.R.S., Langdon Down, M.D., J. Crichton Browne, F.R.S., J. Marchant Williams, Richard Greenwood, Prof. Michael Foster, F.R.S., Spencer Watson, F.R.C.S., and C. E. Shelly, M.B.

Wednesday, July 30.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

International Health Exhibition (Conference on School Hygiene).—"Infectious Diseases in relation to Schools." Communications by T. J. Dyke, F.R.C.S., and H. Alder Smith, F.R.C.S.

Thursday, July 31.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

International Health Exhibition (Conference on School Hygiene).—"School Construction and Arrangements." Communications by J. Murgatroyd, F.R.I.B.A., Clement Dukes, M.D., and E. Noble Smith.

Friday, August 1.

International Health Exhibition (Conference on School Hygiene).—"Recreations and Gymnastics." Communications by Rev. E. Warre, M.A., Hon. E. Lyttelton, and R. von Schweitzer.

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MEDICAL TIMES

AND GAZETTE.

No. 1779. LONDON, SATURDAY, AUGUST 2, 1884.

Contents.

ON OLD AND MODERN POISON LORE.[1]

By A. WYNTER BLYTH, M.R.C.S.,

Medical Officer of Health for Marylebone.

The modern word toxicology has a deep significance, it can be traced back to an ancient root, meaning "bow" or "arrow," or in a wider sense some "tool" used for slaying. The oldest poison lore was that of primitive races in various parts of the world, who, in remote unhistoric time, took a lesson from the snake, and remedied the imperfection of their weapons by steeping them in venom.

The arrow poison of the Gauls is said to have been hellebore; that used by certain American Indians is curarine, a vegetable extract from plants of the Strychnos order. Some races adopted snake poison, and others putrid blood; this last producing a disease termed in our day septicæmia, or blood poisoning. In this way the septic poisons may have been very early known.

Weapons soiled with the blood of former wounds would be found more deadly than clean, freshly-made weapons; and starting from this empirical fact, the arrows or spears would be steeped in all manner of offensive pastes and smeared with the vegetable juices of those plants which were deemed noxious; and as the effects were mysterious, they would be ascribed to the supernatural powers, and covered with a veil of superstition. The poisonous properties of arsenic, opium, henbane, aconite, and a few others were known to the ancients and handed down by oral tradition as a part of priestcraft, long before they were reduced to writing; the exact amount of knowledge thus transmitted in this way can only now be a matter of inference. On an Egyptian papyrus preserved at the Louvre, M. Duteuil read, "Pronounce not the name of I. A. O. under the penalty of the peach." Now peaches, as peaches, are perfectly harmless, but prussic acid can be distilled from them; the Egyptians were the first known to have practised distillation, hence under the dread threat of the peach it is clear enough that they meant prussic acid; this is probably the earliest evidence extant of the actual separation of a poison in a more or less pure state by a chemical operation. No mention is made of prussic acid among the early Roman writers, yet there is good reason to believe that a knowledge of the deadly Egyptian distillate of peaches passed to the Romans. A knight in the reign of Tiberius, accused of high treason, swallowed poison and fell dead at the feet of the senators; no poison but prussic acid, and that in a tolerably concentrated form, would have this effect.

The early treatise of Nicander of Colophon (204–138 B.C.), to which followed Dioscorides, however, shows that whatever use or abuse might be made of a few

[1] A Lecture delivered at the International Health Exhibition on July 15th, 1884.

violent poisons, Greek and Roman knowledge of toxic substances was stationary, primitive and incomplete.

The Asiatic races used poison more than the Northern or Western nations; the ancient practice of the Hindoo widow—self-immolation on the burning pile of her husband—is ascribed to the necessity the Brahmins were under of putting a stop to the crime of domestic poisoning. Every little conjugal quarrel was liable to be settled by this form of secret assassination, but the law seems to have effectually stopped the practice. The Asiatics knew the properties of arsenic, aconite, opium, and various solanaceous plants, but were not acquainted with prussic acid.

The part that poison has played in history is considerable. The pharmaceutical knowledge of the ancients is more graphically and terribly shown in the deaths of Socrates, Demosthenes, Hannibal, and Cleopatra, than in the pages of the old writers on poisons. In the early part of the Christian era, professional poisoners arose, and for a long time exercised their trade with impunity. In A.D. 26 poisoning was so much in use as a political engine that Agrippina refused to eat of some apples offered to her at table by her father-in-law, Tiberius. It was at this time that the infamous Locusta flourished. She is said to have supplied, with suitable directions, the poison by which Agrippina got rid of Claudius; and the same woman was the principal agent in the preparation of the poison that was administered to Britannicus by order of his brother Nero.

It was the custom of the Romans to drink hot water, and as no two men's tastes are alike, great skill was shown by the slaves in bringing the water to exactly that degree of heat which their respective masters found agreeable.

The children of the Imperial house, with others of the great Roman families, sat at the banquets at a smaller side table, while their parents reclined at the larger. A slave brings hot water to Britannicus, it is too hot; Britannicus refuses it. The slave adds cold water, and it is this cold water that is supposed to have been poisoned; in any case, Britannicus had no sooner drunk of it than he lost voice and respiration. Agrippina, his mother, was struck with terror as well as Octavia his sister. Nero, the author of the crime, looks coldly on, saying that such fits often happened to him in infancy without evil result; and after a few moments' silence, the banquet goes on as before. If this were not sudden death from heart or brain disease, the poison must have been either a cyanide or prussic acid.

In those times no autopsy was possible; although the Alexandrian school, some 300 years before Christ, had dissected both the living and the dead, the work of Herophilus and Erasistratus had not been pursued, the rudiments of human anatomy were only known, while as to pathological changes and their true interpretation, such knowledge had no existence. It was not, indeed, until the fifteenth century that the popes, silencing ancient scruples, authorised dissections; and it was not until the sixteenth century that Vesalius, the first great anatomist, arose.

In default of pathological knowledge, the ancients attached great importance to mere outward marks and discolorations. They noted with special attention spots and lividity, and supposed that poisons singled out the heart for some quite peculiar action, altering its substance in such a manner that it resisted the action of the funeral pyre and remained unconsumed. It may, then, fairly be presumed that many people must have died from poison without suspicion, and still more from the sudden effects of latent disease, ascribed wrongfully to poisons. For example, the death of Alexander the Great has been confidently ascribed to poison, but "Littré" has fairly proved that the great emperor, debilitated by his drinking habits, caught a malarious fever in the marshes around Babylon, and died after eleven days' illness. If, added to sudden death, the body, from any cause, entered into rapid putrefaction, such signs were considered by the people absolutely conclusive of poisoning—this belief prevailed up to the middle of the seventeenth century, and lingers still among the uneducated at the present day. Thus, when Britannicus died, an extraordinary lividity spread over the face of the corpse, which they attempted to conceal by painting the face. When Pope Alexander VI. died, probably enough from poison, the rapid *post-mortem* change was noted, and considerable stress is laid upon it by the historian Guicciardini—but we know that such changes are utterly untrustworthy, some poisons indeed, such as arsenic, retarding putrefaction.

An essay might be written entitled Royal Poisoners. Charles le Mauvais, King of Navarre, gave a commission of murder to Woudreton, to poison Charles VI., the Duke of Valois, brother of the king, and his uncles the Dukes of Berry, Burgundy and Bourbon; the infamous document is still extant; it directs Woudreton to purchase sublimed arsenic, to sneak into the kitchen, larder, or anywhere else, and drop the powder into the soups or meats.

Charles IX. figures in the annals of human vivisection. There was a question whether bezoar was an antidote or not. The king decided the question by giving a cook convicted of some slight theft a lethal dose of corrosive sublimate, following it up with bezoar; but the man dies in seven hours, although Paré gives him oil—a grim business. Our own King John, of memory far from spotless, is said to have shut Maud Fitzwalter the Fair, in the highest, chilliest den of the Tower, and when neither cold, nor hunger, nor solitude broke her strength, when she still disdained his shameful suit, he foisted on her a poisoned egg, of which she ate and died.

The part that dynamite is playing in this age was played between the fifteenth and seventeenth centuries in Venice and Italy by poison—the criminal dynamite school of the nineteenth and the criminal arsenic school of the fifteenth in political basis—in reckless disregard of human life—are similar. The Council of Ten sat in Venice, decreeing the removal of this or that man. Curiously enough, the proceedings of the infamous oligarchy were recorded in writing with the utmost fidelity and candour; and in the strangest minutes ever penned, we may read now the reasons for and against the proposed assassination, the number of votes on either side, the sum paid, and the success. I will give one example and only one. On the 15th December, 1513, a Franciscan brother, John of Ragubo, appeared before the Council of Ten, and offered his services to remove any objectionable person out of the way. For the first successful case he required a pension of 1,500 ducats yearly, which was to be increased on the execution of future services. The Presidents, Girolando Duoda and Pietro Guiarini, placed the matter before the "Ten" on the 4th of January, 1514, and on a division, ten against five, it was resolved to accept so patriotic an offer, and to experiment first on the Emperor Maximilian. The bond laid before the "Ten" contained a regular tariff, appraising the value of the lives of most of the men of note of the day, and concludes—"The further the journey, the more eminent the man, the more it is necessary to reward the toils and hardships undertaken, and the heavier must be the payment." In the seventeenth century there arose a band of poisoners in Italy; the most notorious of whom was a certain Toffana. She used arsenic in solutions of various degrees of concentration; her solution was called Acquetta di Napoli. She is on fairly good grounds suspected of

having removed by means of Naples water, more than 600 persons, among whom were two popes. With the Acqua Toffana, the Acquetta di Perugia played at the same time its part. It is said to have been prepared by killing a hog, disjointing the same, salting it as it were with arsenic, and then collecting the juice which dropped from the meat. The juice was considered far more poisonous than an ordinary solution of arsenic; and recent researches on certain compounds which arsenic forms with organic matters lend countenance to this view. Toffana had disciples; Hieronyma Spara formed an association of young married women, one of the objects of which was the assassination of their husbands.

Italian and Venetian annals are not alone stained with these detestable crimes. The curious may read in Voltaire's History of Louis XIV.'s reign, the crimes of the Chambre ardente, of St. Croix, de Brinvilliers, the priest Le Sage, and the women La Voisin and La Vigourcux—of these Madame de Brinvilliers was specially infamous. She is said to be the inventor of "les poudres de succession," and essayed their strength on the patients at the Hotel Dieu. She poisoned her father, brothers, sisters, and others of her family, but a terrible fate overtook both her and her instructor and master in villainy, St. Croix. St. Croix was suffocated by deleterious vapours from his own chemicals. Madame de Brinvilliers' crimes being known, she fled and took refuge in a convent, from which she was lured by a detective, who disguised himself as an amorous abbé. She was beheaded and her body burnt near Notre Dame, in the middle of the reign of Louis XIV.

The old poison lore, mixed up with legend, myth and superstition, culminated in the use of arsenic. Arsenic, white, tasteless, and deadly, capable of introduction into the human frame in all manner of subtle ways, of killing slowly or quickly, and of simulating the effects of disease, was at one time almost synonymous with poison. For more than a century, after the properties of arsenic were to some extent popularised, there was no certain method known for its detection; and as late as 1836, whatever evidence of arsenical poisoning might be afforded by collateral circumstances, the risk of detection by chemical analysis was not great; hence the invention of a certain test for arsenic is so important, that the date of its discovery marks a toxicological epoch, from whence we may fairly date the rise of the modern poison lore. The great chemist, Scheele, in the eighteenth century, observed that arsenic united with hydrogen made a very peculiar and fœtid gas. After him Proust also studied the gas, and observed that when arsenical tin was dissolved in hydrochloric acid, that the gas could be lit, and then when allowed to play upon a cold surface, stains of the metal arsenicum were deposited.

Trommsdorf next announced, in 1803, that when arsenical zinc was introduced into an ordinary flask with water and sulphuric acid, an arsenical hydrogen was disengaged, and if the tube was sufficiently long, arsenicum was deposited on its walls. Stromeyer, Guy Lussac, Thenard, Gehlen and Davy later studied this gas, and Serullas, in 1821, proposed this reaction as a toxicological test. Lastly, in 1836, Marsh, a chemist at Woolwich, published a memoir in the *Edinburgh New Philosophical Journal*, entitled "Description of a new process of separating small quantities of arsenic from substances with which it is mixed." On the basis of the work done by the pioneers already enumerated, Marsh arranged an apparatus of great simplicity, which is known under the name of Marsh's test. The method is now in use, and will separate, with certainty, a millionth of a grain of arsenic—thus the most tasteless and the easiest administered poison in the whole world is also the one which it is easiest to detect.

Modern poison lore is distinguished from ancient poison lore by its extent, by its exactness, by the laborious compilation and verification of its facts, by the application of various instruments of precision, both at the bedside and in the laboratory. In modern times the throbs of the pulse, the respiratory waves, and even the functional enlargements of internal organs, are made to record their own movements on strips of paper, moved by clockwork, and adjusted by mechanism of an ingenious character. The number of degrees of temperature gained or lost is registered by thermometers. The channel by which the poisons leave the body is determined by chemical analysis, and by the same means we know much relative to the localisation of a poison in different tissues.

It is just about as difficult for the toxicologist to say how many poisons there are at present known, as for the botanist to enumerate existing species. By varying methods of classification all kinds of numbers could be obtained in either case. In the following statement, I have counted such substances as lead, copper, arsenic, antimony, and the like, as single units. Each of the metals named enter into a very large number of combinations, all of which are more or less poisonous, and which, if each compound were enumerated, would swell the total to a big figure. In like manner, although in the common foxglove (digitalis) there are several poisonous principles, yet they are so nearly allied that they may be all included under one head, and so on with other cases, proceeding in this way.

Inorganic solid poisons	19
Liquids, more or less volatile, and many anæsthetic, such as ether, chloroform, methylene, benzene, alcohol, &c.	18
Acids, both organic and inorganic	10
Alkaloids	51
Glucosides	20
Organic anhydrides	2
Complicated animal and vegetable poisons not yet fully classed	26
Gases	14
	160

I get a total of 160 poisons, as about the number at present known to science; but not more than 40 of these ever figure in the Registrar-General's reports as a cause of death, and over 60 are chemical rarities, not existing in ordinary commerce.

Previous to the nineteenth century, more than seventy of these poisons were either unknown, or only known as vegetable extracts; it is the glory of modern chemistry to have separated from plants most of the active principles in a perfectly pure state, and to have shown that what was formerly considered simple is really complex. Take, for example, opium; it has been known as a narcotic from the earliest times; before 1803 no one ever imagined that it contained more than one active principle, but in 1803 Derosne separated from it morphine and narcotine, and at the present time no less than twenty-one definite principles, all having different physical, chemical, and physiological properties, some, indeed, antagonistic, have been separated from this wonderful drug; or take aconite, that has been from the most remote times the favourite poison in India. Aconite, or the common monkshood, contains six alkaloids, two of which alone seem to be physiologically active. Digitalis, the common foxglove, contains at least seven closely related and yet not identical principles; and, in short, it is now evident that poisonous plants generally contain a family group of poisons.

Life mainly rests on a tripod, heart, brain, and lung, Some poisons act specially on the heart, others concentrate themselves on the lungs, and others ascend to the brain, but a great majority irritate and inflame the fine velvet lining of the great convoluted tube of the

body, and only act indirectly on the cardiac, nervous, and pulmonary systems. I have calculated that about 19 per cent. of the 160 known poisons act directly on the brain and spinal cord, either lulling to preternatural sleep, or exciting to preternatural activity; 5½ per cent. affect the respiration, a little over 4 per cent. affect the heart primarily, while no less than 39 per cent. are irritants; as for the remainder, their action is so mixed that they seem to affect various organs at one and the same time.

I have no intention of describing to you the symptoms produced by toxic substances, but take the opportunity of pointing out in a general manner the wonderful mimicry of disease produced by certain poisons.

The fatal bite of the Cobra di Capello not unfrequently produces all the effects of a somewhat rare malady known as glosso-pharyngeal paralysis, or, in plainer English, palsy of the tongue and throat.

Atropine, the active principle of belladonna, will produce a dry sore throat, a vivid rash on the skin, a quick pulse, a high temperature, with delirium: the resemblance to scarlet fever is completed by a slight desquamation, or subsequent peeling of the skin.

A large fatal dose of arsenic mimics cholera; there is the same excessive depletion of all the fluids of the body by one channel, the vomiting, the collapse, and rapid death. Phosphorus produces jaundice; strychnine simulates tetanus, and the symptoms have been mistaken many times for hysterical convulsions.

Madness has been produced by lead. Last year I saw in Dr. Rayner's clinic at Hanwell some remarkable examples of this; in nearly all cases there were illusions of sight, one patient saw round him wind bags blown out to look like men. These apparitions floated after him and very much worried and alarmed him.

A more terrible form of brain disease has been produced by an artificial poison. Some years ago mercuric methide was prepared in a London laboratory, and two young chemists, engaged day after day in its manufacture, became ill from breathing the vapour; complicated symptoms of brain disease appeared, which culminated in idiocy, and they both died.

Mercuric methide is not, however, the only poison which may produce insanity or idiocy. The dhatoora of the Hindoos, which is identical with belladonna, has in Indian history played the peculiar *rôle* of a State agent, and has been used to produce imbecility in persons of high rank whose mental integrity was considered dangerous by the despot in power. It usually, however, produces but a temporary insanity: in one case after a toxic dose a tailor sat for four hours moving his hands and arms as if sewing, and his lips as if talking, but without uttering a word. The "insane root that takes the reason prisoner" may be found among the solanaceous plants. In an ancient cloister the monks ate in error henbane root, and in the night were all taken with hallucinations, so that the pious convent was like a madhouse. One monk sounded at midnight the matins; some who thereupon thinking it was morn, came into chapel, opened their books, but could not read; others declaimed; some sang drinking songs of a character not befitting the place; and the greatest disorder prevailed.

Several poisons produce ulcerations and skin diseases. The remarkable malady, first described by Dr. B. W. Richardson, under the name of the bichromate disease, is another example of similarity between an artificially induced affection, and one which seems to occur spontaneously. Potassic bichromate is made on a large scale, and the workmen who inspire the dust through the nose suffer from an inflammation of the septum, which ultimately may be destroyed by ulceration. It also causes painful skin affections—eruptions like eczema and psoriasis, and very deep and intractable ulcerations. The effects of the bichromate are not confined to men; the dust gets in any crack the horses at the factories may have about their hoofs, and causes an ulceration from the effects of which even the hoofs may be shed.

If glosso-pharyngeal paralysis, scarlatina, affections of the skin, tetanus, insanity, and idiocy may be either simulated or produced by drugs, on the other hand, certain diseases simulate the symptoms of poisoning, and the most rational explanation of these cases is that the body itself manufactures its own poison. One of the best examples is that known as "diabetic coma." In diabetic coma, there is first mental confusion, in which the person may wander aimlessly about the streets, and have somewhat the appearance of ordinary intoxication; then follows irresistible drowsiness, and ultimately death,—altogether a series of phenomena which might be well mistaken for the narcosis of opium or alcohol.

The establishment of almost perfect antagonism between certain vegetable poisons belongs to modern poison lore; for example, atropine is antagonistic to pilocarpine; atropine makes the skin dry, pilocarpine causes in five minutes a profuse perspiration; atropine dilates the pupil, pilocarpine contracts it. The heart of an animal arrested by atropine can have its tick-tick restored by the direct application of pilocarpine. Poisoning by pilocarpine is relieved and cured by atropine; poisoning by atropine is relieved and cured by pilocarpine.

The relationship between chemical composition and the direction of toxic activity also belongs to modern poison lore; the alkaloid strychnine, which causes powerful tetanus, may be changed by the chemist into another alkaloid which produces the opposite effect—paralysis; morphine, a drug producing sleep, may also be transformed by a very slight chemical metamorphosis into an emetic.

In being obliged to avoid any detailed account of the symptoms of poisoning, I cannot omit to point out the errors of most of the popular descriptions. Few dramatists have been happy in the description of death from poison; the death of Cleopatra, described by Shakespeare as resulting from the bite of a venomous snake, is like no clinical description of fatal illness from bites of any class of snakes.

In Philip Massinger's play—"The Duke of Milan," Francisco dusts over a plant with a poisonous powder; this plant Eugenia holds; Ludovico Sforza kisses her hand twice, and from this slight contact very rapidly dies—why, it is doubtful whether pure aconitine itself, the most powerful of all known substances, and only separated within the last few years, could be inhaled under these conditions in sufficient quantity to do harm.

Beverley, in Edward Moore's "Gamester," takes poison in the fifth act, after which he makes several pretty long speeches, and ultimately dies suddenly, but, so far as we can learn, with considerable calmness. Nathaniel Lee, in his tragedy, "Alexander the Great," provides a poison for the destruction of the emperor, which is described as of "exalted force."

> "* * mixed with his wine a single drop gives death,
> And sends him howling to the shades below."

Nevertheless, after taking the poison, Alexander walks about, declaims much, kills Clytus, and goes through the latter part of the fourth act, and most of the fifth, comfortably enough; then raves in delirium, regains his senses, and dies after a very fine speech. There was no poison known to the writers of the plays alluded to which would produce symptoms in any way similar. At the present day there is, however, a liquid made by artificial means, the effects of which are stranger than those imagined by play-writers—after it is swallowed, the person walks about for an interval of time varying

from a quarter of an hour to two hours. His skin, and even the whites of the eyes, become of a strange purplish livid colour, but he may feel fairly well, then the fatal symptoms set in with appalling suddenness, and he dies in a few minutes. For anyone who delights in constructing stories of sensation, these occasional effects of nitrobenzene, just described—the weird blue colour, the interval allowing of acts and rhapsodies, and the abrupt termination, afford considerable, although perhaps not commendable scope.

If progress has been made in the discovery of new poisons, and new methods of detection, so also progress has been made in the treatment of poisoned persons. Take, for example, the modern treatment of a patient suffering from a toxic dose of strychnine. In chloroform we have not a chemical but a physiological antidote. Death takes place from the terrific spasms affecting the breathing. If chloroform be inhaled, and the nervous system lulled to sleep, time is afforded for the elimination of the alkaloid by the natural channels, and a chance is given to an otherwise hopeless case, In turpentine we have a most wonderful antidote for poisoning by phosphorus; and the more complete, for it seems to follow and catch up as it were the phosphorus, even when circulating in the blood.

Few of us contemplate the possibility of accidental poisoning in our own households; yet among the daily necessities of civilized life, very active poisons hold their place. Bleaching powder, carbolic acid, salts of sorrel and even some forms of washing blue are deadly enough, and from time to time are the cause of accidents. The proper antidote for these ought to be in every house, and the elementary knowledge of the proper treatment of such accidents should be known by all.

There was an ancient myth, long believed, that certain stones changed their colour at the approach of poison, and that there was also a substance which would neutralise every poison. This is no longer thought probable or possible. Nevertheless, attempts have been made with some success to compound a liquid which plays the *rôle* of a multiple antidote. One of the best consists of a saturated solution of sulphate of iron, 100 parts; magnesia, 80; animal charcoal, 44 parts; water, 800. It is preferable to have the animal charcoal and magnesia mixed together in the dry state and kept in a well corked bottle; and when required for use, the saturated solution of sulphate of iron is mixed with eight times its bulk of water, and the mixture of charcoal and magnesia added, with constant stirring.

The multiple antidote may be taken in wine-glassfuls once every ten or twenty minutes in recent poisoning by arsenic, zinc, opium, digitalis, mercury, or strychnine.

As to immediate treatment of other common poisons.—In poisoning by acids use calcined magnesia, or carbonate of soda, or any bland oil. In poisoning by caustic soda vinegar should be given. A good domestic emetic is sulphate of zinc, which now may be bought of most chemists in the form of convenient tablets. With the simple remedies named, that is, multiple antidote, calcined magnesia, vinegar, sulphate of zinc tablets, and let us add, for phosphorus, a small bottle of French turpentine, a cupboard may be stocked, and thus, for a few shillings, precautions taken against an emergency which may arise at any moment.

The use of poison by man I have thus first traced to the barb of the arrow envenomed by vegetable extracts; later, poisons were used in a more subtle manner; the stroke in daylight was replaced by the poisoned chalice; but at the same time it was found that poisons were also medicines, and able, when used legitimately, to preserve as well as destroy life. Later still the very essences of the plant world were separated as pure crystalline forms, and, aided by instruments of precision, their properties studied in all manner of ways. Rays of light, from the development of physiological and other sciences, were brought to converge upon the general subject; and modern toxicology, though far from perfect, has rendered the crime of secret poisoning a dangerous game to the player. An important part of modern poison lore has been built up by experiments on animals. All that has been done in the past in this direction I cannot justify; but these experiments have for the most part been undertaken by noble and humane men, for noble and humane purposes. If these experiments have increased the ways of death, they have multiplied the means of recovery; they have given to the physician many a potent elixir, charming away pain and restoring health. They have enlarged our knowledge of the action and nature of remedies, and have proved safeguards against illicit criminal practices. These experiments have shown that certain poisons are so potent and subtle in their action as to almost equal the wonders in tales told of charms condensed in necromancers' phials. The animal body can be played upon as if it were a machine. The strokes of the central pump can be slowed or quickened; the vital heat lowered or increased; the pupil of the eye expanded or narrowed; the limbs paralysed or convulsed; the blood sent to the surface or withdrawn to the interior; even the natural hue and colour of the body can be changed. If it be asked, cannot this strange science become, in the hands of an unscrupulous, abandoned, and yet learned man, a power of destruction fearful to contemplate? The answer is, the risk of this is small. The higher kind of brain is a moral brain; the highest scientists are the most religious, it may not be a religion of special creeds, it may not even be a Deistical religion; but no one who has observed the phases of thought of the nineteenth century can with truth deny, that side by side with the evolution of physical and natural science, there has also been an evolution and practice of the purest doctrines of Krishna and Buddha; if indeed it were not so, and the most exalted intellects abandoned themselves to the secret destruction of their fellow creatures, the results would be disastrous. As for the ordinary criminal mind, like that of the Comte le Pommerais, who specially prepared a then almost unknown alkaloid, or the surgeon Palmer, or still more recent semi-scientific murderers whose names I pass over in silence, there is absolutely no ground for believing that they could escape detection; however cunning they may think themselves, however rare the agent they may employ, the toxicologist has weapons and means at his command to diagnose the sickness of nature from that of malignant art, and to separate and identify the poison.

SOME OBSERVATIONS ON ENDEMIC FEVERS IN INDIA.

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(*Continued from page* 113.)

Returning to a consideration of the other cases, in all except two there was abdominal pain and tenderness in a greater or less degree. In four cases, all of them fatal, there was hepatization of one or both lungs, and in five others some hypostatic congestion; three of these latter also ended fatally, bronchitis alone was present in nine cases, one of them fatal. In four fatal cases the liver alone, and in two the kidneys alone, were congested. The urine was tested for albumen in

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twenty-one cases. This was present in seven cases, five of which were fatal. It was present, as a rule, in those cases in which the liver and kidneys were both congested. In four of the fatal cases both these organs were in that condition, and in the fifth case the kidneys were much inflamed. With regard to the duration of the illness in fatal cases, one died on 6th day, one on 7th day, two on 14th day, two on 17th day, and the others on the 10th, 15th, 16th, 21st, 26th, 38th, and 42nd days. Intestinal ulceration was present in all these cases of enteric proper, with the exception of the one just recorded. In five cases, in addition the solitary glands of the large intestine were enlarged and congested. In some cases these glands were closely set together and looked exactly like the pustules of small-pox. In eleven cases the colon was also very much congested, and in two cases the rectum. In four cases the mucous membrane of the large intestine was eroded. The spleen, except in one case, was enlarged and congested. It varied from 10 to 28 ozs. in weight. The mesenteric glands were enlarged in all except two cases. The condition of the membranes of the brain has been previously alluded to as causing cerebral disturbance of a marked nature, and early death. Some of these cases in the first few days of illness had convulsions, and in two cases these attacks counterfeited typical epileptic fits with tonic and clonic spasms. Coma, as a rule, supervened at an early period in these cases. The virulence of the poison whether of climatic or pythogenic origin was tested by the extent of the lesions found on *post-mortem* examination. In many cases the bladder was much inflamed, and the whole intestinal tract, from the mouth to the anus, more or less congested.

The following is a record of one of these acute cases. Private J. M., age 23, service in India three months, was admitted to hospital on the 18th June, 1883, with diarrhœa and severe headache, which he stated had attacked him suddenly the previous day. The tongue was moist and furred, the face was flushed, and the eyes suffused. There was some tenderness over the abdomen; temperature 101°. He was frequently purged throughout the day the motions being frothy and feculent. Next day, the third day of the illness, the motions were bilious and there was some straining; the tongue was brown in centre; temperature 103°; delirium set in the same night and the patient was very violent. He had sharp convulsions and the efforts of three men hardly succeeded in keeping him in bed. The tongue became quite dry and parched, with bright red round spots sharply defined on the rough brown surface. When not in one of these paroxysms there was constant twitching of hands and feet. He was then quite unconscious, urine and motions passed in bed. On the 22nd urine was tested, specific gravity 1028, acid, loaded with albumen. He was now quite comatose. There was a profuse fœtid sweat from the arms and upper portion of the body, while the skin of the legs and abdomen was quite dry. He died at 11.30, noon, on the fifth morning after admission, the temperature having risen to nearly 106° an hour before death. On *post-mortem* examination the sub-arachnoid space was found full of fluid, and a large quantity of recently formed lymph, semi-consistent, was thrown over the surface of the frontal convolutions. The liver and kidneys were congested and the spleen also. The latter weighed 14 ozs. There were some spots of congestion in the upper portion of the ileum. The first diseased Peyer's patch was met with about nine feet from ileo-cæcal valve. This patch was two inches in length, and half an inch broad. It was a slender oval in shape, and its surface was raised above the mucous membrane, its substance was soft and lymphy and eroded in one or two places. Its long axis corresponded to that of bowel, and its margins were well-defined. The second patch was ten inches below this one, and others were met with at intervals of four or five inches, they became larger, thicker, and broader as the valve was neared. Within three feet of the ileo-cæcal valve the solitary glands were found enlarged and closely packed together, as many as ten or twelve to the square inch. Peyer's patches were here fully a quarter of an inch thick and were stained with bile. A mass of ulcerated patches surrounded the valve. The bowel on section through one of them was fully half an inch thick. The colon was congested throughout and its upper portion thickly studded with enlarged solitary glands, the rectum also was much congested.

The second acute case, which ended fatally on the seventh day, was in a young soldier only a few weeks landed in India. The symptoms were similar to the one just recorded, but a few rose-coloured spots were seen on chest and abdomen. He was admitted to hospital on the 12th May, 1883, and died on the 16th. On admission he had severe headache and diarrhœa with dark offensive motions; delirium set in early. He had clonic convulsions frequently; both lungs became congested early, and he died comatose. The *post-mortem* lesions were very similar to those of previous cases. Spleen weighed 28 ozs., and the liver was very much congested.

Estimated day of Illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
3rd	103	105
4th	104	105
5th	104·2	104·6
6th	103·8	103·8
7th	104·8	

Now contrast the severity of these two cases with the following one, which they somewhat resembled on admission. In this case the original attack was considered simple continued fever, and the patient was discharged after 23 days' treatment apparently well. Private L., age 21, service in India five weeks, was admitted to hospital on the 21st April, 1883, with bilious diarrhœa, which he stated had lasted for two days; he also had sharp pain in the bowels before admission; an acute pain was complained of in the head chiefly on the vertex, his skin was hot and dry, his face suffused. The tongue on third day, in hospital, became quite dry and brown except at the edges, and intestinal complications were expected. The diarrhœa, however, ceased the following day, and the motions became normal in character; the pain also disappeared from the head. He improved rapidly, the temperature became normal on the ninth day of his illness, and he was discharged on 23rd day of hospital treatment. He was re-admitted a fortnight afterwards and then stated that shortly after discharge the diarrhœa returned and that he became feverish in the evenings. On re-admission the temperature was 104·4° first evening, and there was abdominal pain and tenderness with some tympanites; diarrhœa had then ceased, temperature reached the normal on the ninth day of hospital treatment, and he was discharged well on the 32nd day.

Allusion has been made previously to frequent irregularities in the temperature, not common at home in enteric fever. It is usually stated that a temperature of 104° within the first 24 hours, as a rule, excludes it. In an insidious attack the patient would rarely report himeslf sick before the lapse of that time. In some of my cases, in which the patient described his illness as coming on suddenly with rigors and severe headache the previous day, I have found the temperature over 104° on the evening of second day, and very high temperatures are constantly seen in these severe cases

in the first two or three days. A normal temperature at any time during the first week, is also said to exclude enteric. In the second case given in this paper, the last relapse commenced with a series of evening exacerbations, the temperature being normal in the morning for three days; and in all the cases of relapse but one, the temperature had reached the normal in the original attack at some time in the first seven days. I give below a few details of two cases returned as enteric, in which the temperature was also irregular. One patient was 27 years old, the second 28. Both these cases, while under treatment in hospital for gonorrhœa in August and September last, were attacked with diarrhœa and headache. The first case was very mild at the outset, and the patient said nothing about his illness for some days. In each case there was much sleeplessness and nervous prostration, and the stools, which were feculent at the outset, afterwards assumed enteric characters. There was great debility in both cases, and the first case was re-admitted after discharge with œdema of the legs, and diarrhœa.

Estimated day of Illness.	TEMPERATURE.		No. of Motions.
	Morning.	Evening.	
	°	°	
6th	...	102·8	frequent
7th	100·4	101·4	
8th	101 8	103·8	4
9th	100·8	103·4	3
10th	100·2	103·6	6
11th	101·2	101·8	4
12th	99·2	103·2	3
13th	98·6	102·6	3
14th	99·4	103·4	4
15th	99·4	101·4	3
16th	normal	103·2	3

From the latter date the temperature gradually fell to normal in the evenings, and diarrhœa subsided on the nineteenth day.

In the second case the rise was more sudden, and the daily range less.

Estimated day of Illness.	TEMPERATURE.		No. of Motions.
	Morning.	Evening.	
	°	°	
3rd	99·2	103·2	8
4th	102·2	102·8	2
5th	100·8	104·2	8
6th	101	102·2	7
7th	101·4	101·8	9
8th	100·8	101·6	6
9th	100·2	101·4	4
10th	99·8	101·4	4
11th	99·2	99·8	3
12th	98·8	101·2	5
13th	98·6	101·2	2
14th	98·8	100·8	3
15th	98·4	100·8	3
16th	98·6	99·8	3

In this case a normal evening temperature was reached on the twenty-fifth day.

Cases with temperatures similar to both these cases were common enough, but in many there was constipation throughout, and they were therefore considered remittent in type.

The following case was also peculiar as regards the temperature at the outset, though in other respects well marked. Private B., age 21, service in India six months, was admitted to hospital on the 29th September, 1883. The day previous to admission he stated he was suddenly attacked with dizziness, and severe bilious vomiting, which was followed by a shivering fit. He then lay down and felt better in the evening; the next day the shivering returned and he came to hospital. On admission his tongue was quite clean and moist, but headache he stated was very severe. He also complained of pain down the back and over the liver. Bowels were constipated. There was no abdominal tenderness. On the following morning the temperature fell to normal. There was little change during the next two days, tongue became furred, and the headache was still severe on the fifth day; temperature at 4 o'clock, was 103·6°, and he was put in a bath at a temperature of 86°; it rose in bath to 104°, but fell in one hour to 103°. Delirium was present that and the previous night, tongue became brown in centre, and the eyes were much suffused. There was but little change during the next six days. There was much nervous prostration, and the limbs were constantly jerking. Bowels constipated. The baths were repeated every day until the fourteenth day, sometimes twice a day. He was rolled up in a blanket and made comfortable in the bath by pillows. After the first bath the fall in temperature was usually from 2° to 3° in the hour, and it rarely rose again to within 2° of the original height after the evening bath. The evening temperatures were usually taken before 4 o'clock, and consequently did not represent the highest temperatures which would have been reached. On two occasions the administration of the bath was delayed for half an hour to see if the temperature would fall naturally, but it kept steadily rising till it was over 105°. On the thirteenth day of illness there was some bronchitis, and diarrhœa with enteric stools, set in. The diarrhœa was mild in character. There was some tympanites and abdominal uneasiness, not amounting to pain. The delirium was kept in check by the bath, and the tongue, though brown, was moist throughout. On the seventeenth day there was some improvement, diarrhœa ceased, and the delirium disappeared. On the thirty-second day there was evidence of a tendency to relapse, which passed away and the patient was discharged from hospital on the 16th December.

Now these cases of so-called enteric fever thus briefly recorded, and selected from a large number of others equally irregular, will show, even to one who has not seen and treated them, how different are the types of fever in India with visceral complications from those met with at home.

(To be continued.)

ON SOME CASES OF TREPHINING.

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The operation of trephining was looked upon in the earlier days of surgery as the most interesting, the most delicate, and the most serious of operations. More delicate operations have sprung up since that time, abdominal surgery has now usurped the interest that then belonged to cranial surgery, whilst the seriousness of the ordinary operation of trephining has to a large extent disappeared.

The diagnosis of brain disease, and our knowledge of the functions of the healthy brain have made rapid advances within the past few years, but surgery has not been able to keep pace with them and chronicle the removal of tumours, or the frequent evacuation of abscesses during life. *Post-mortems* alone are still the criteria of diagnostic precision in cerebral disease. Cases of compression from depressed bone, meningeal hæmorrhage, or pus, and a few cases of epilepsy are still trephined; but the indications are much the same as in the days of Percival Pott.

The bony covering of the cranial cavity is a formidable obstacle to operative proceedings, and the small apertures that we have hitherto dared to make give room neither for those operative nor diagnostic purposes to which, through exploration, we can have recourse elsewhere. Besides, the object of all operation is to preserve the *conscious spirit*, the *ego*, of the individual, and limbs and organs, and senses must give way in order that it may be retained. In operations in the cranial cavity there is a danger of destroying the conscious individual and leaving behind an automatic arrangement of muscles and bones and nerves and viscera, that will require the sacrifice of another life to keep right for even a limited period.

A patient cured of a cerebral tumour that threatened his life is worse than dead if he can only follow his nose till he comes to a wall to which he stands "glued" until someone turns his face elsewhere. The most loving friends would soon wish such a one buried, nor could they be found fault with. The automaton is not their relative, and his mummy preserved in a glass case would be as interesting and much less troublesome. For this reason, as well as from the inherent surgical difficulties of such operations, removal of brain tumours will probably never become a common operation. But tumours of the dura mater, vascular derangements and fluid collections, both internal and external, may be more successfully treated than now. My cases will be best followed by remarks on their most useful and salient points, and hence, with these brief prefatory remarks, I will proceed to describe them in order.

Case I.—*General Paresis, especially of left side, with stupidity—Signs of old injury to right side of head—Trephining—Great improvement both mentally and physically.*

Geo. P., æt. 18. Came into hospital originally on May 18th, 1881, suffering from fever. Since that time he has been living in the workhouse. His father died in gaol. His mother deserted him, and he has been a vagrant and a beggar all his life, except occasionally when he worked as a farm labourer. At the age of fourteen years, through excessive drinking he was sent to Rainhill Asylum and remained there four years.

On September 3rd, 1883, I first saw him in the infirm wards of the hospital, with general loss of power, most marked on the left side without any very distinct loss of sensation. His lower lip hung down and saliva dribbled from his mouth. There was no facial palsy. Everything was passed beneath him, and he was so stupid that nothing could be got out of him. A cicatrix existed on the skin over the right parietal bone, just behind its centre, beneath which was an irregular depression.

On September 26th I trephined over the inequality and found the skull to be enormously thick. The dura mater was healthy looking, although the ring of bone was somewhat irregular on the inner side. Operation performed under the spray.

27th.—Temperature, morning and evening, 99° and 98·4°. Complains of pain in head. Can move left arm much better. On the 28th the evening temperature reached 103°; 29th, morning and evening temperature, 99·8° and 101·2°; 30th, 99·8° and 101·2.°

October 1st, 98° and 100·4° Can speak much better. Temperature afterwards normal. Wound quite healed up by the 14th. On October 15th he got up and was able to walk about with crutches; 29th, fell and hurt his arm. In a few days it was well and he was able to go about again. Since that time he has had occasional attacks of powerlessness, but they are very slight and of short duration. His mind is much improved, and he can talk and answer questions well. He is still in the workhouse under observation.

Remarks.—In this case the ostensible cause of operation was based on well-recognised principles of science and of surgery. Marks of injury on the right side of the head, with some paralysis of motion on the opposite side of the body, naturally led to the suspicion of a cortical lesion, probably connected with the injured bone. However, my real reason for operating was to bring atmospheric pressure to bear upon the fluid that probably saturated the atrophied convolutions and so allow them to resume their functions. In numerous *post-mortem* examinations of old people who suffered from stupidity and paresis, such as this patient was the subject of, I had often noticed the atrophied convolutions swamped in fluid that was sometimes of a jelly-like consistency and appearance. The benefit of removing this œdema seemed to me very apparent were it not that all the individuals in whom I noticed the symptoms had already reached the natural span of human existence, and except it were possible to rejuvenate them at the same time it would be worse than useless to operate. This patient, however, was a young man, with an atrophied brain, who was now little better than a vegetable. Indeed he was much worse than a vegetable, as a dirty animal always is. When the large trephine circle of bone was removed, the dura mater collapsed very decidedly, and the healing wound was drawn very decidedly inwards. Atmospheric pressure was brought to bear to that extent upon the cerebral contents, and a proportionate diminution of the cerebral fluid was thus effected. The man has been cleanly since and has been nearly always able to go about. To attempt to generalise from a single case would be unwise; I will therefore content myself with putting the case thus briefly before the profession.

Case II.—*Painful Traumatic Otorrhea, with symptoms of central and ophthalmic disease—Partial relief from trephining—Complete relief from free opening of mastoid cells.*

Wm. B., æt. 33, a dock-labourer, and who describes himself as a very sober, hard working, single man, fell fifteen months ago from the top of a pile of bags and knocked the left side of his head against a gate. There was no visible wound and only slight pain and swelling. After a few days had passed a discharge began to come from the ear of that side.

About a fortnight after the first injury the patient again fell to a depth of 17 feet, and again hurt the left side of his head, close to the ear. The discharge had continued for nearly three months when he became an out-patient at the Eye and Ear Infirmary. He did not attend long there, but during his attendance he had what he calls an operation performed. He does not know anything of the nature of the operation. It was done without pain and relieved him slightly for a time. He had nothing else done to him until he entered hospital under my care on February 20th, 1884.

He came into hospital not so much for the deafness and discharge, as for other symptoms that alarmed him. For some time past the left eye becomes occasionally queer; sight sometimes completely disappears, especially when "the gas is lighted"; at other times it seems as if things were passing quickly before it. The pains in the side of the head and over the orbit are intense, and nearly always present. Giddiness, loss of memory, vomiting and abdominal pains are getting more and more frequent. These symptoms during the last few months had alarmed him greatly. The eye was examined ophthalmoscopically but no record of the examination has been retained.

On admission no swelling could be felt or seen over the mastoid process, a scanty discharge came from the ear; the membrana tympani was thickened and entire.

On April 2nd I trephined the mastoid process. The mastoid cells were very hard and it took a long time before the circle of bones could be removed. When it

was lifted out, the lateral sinus could be plainly seen posteriorly. The mastoid cells in front were filled with what seemed to be inspissated pus. The wound was closed under the same antiseptic precautions that had hitherto characterised the conditions of the operation. Next day the temperature was 100°, the only time it rose above the normal. On May 2nd he was discharged with the trephine wound closed, the discharge from the ear cured, the pain and other symptoms abated but occasionally troubling him.

He was re-admitted on June 4th, 1884, seeking further relief, as the old symptoms had returned.

On June 24th I cut down upon the anterior wall of the trephine aperture, which was now filled by dense cicatricial tissue, and with bone forceps I thoroughly opened up the mastoid cells in front and below the wound. The bone removed was hard and had its interstices completely filled with thick white curdy looking material. The deep hole thus made was plugged with boracic lint.

Towards the evening of the day of operation he was rather dull and complained of pain in ear and buzzing in head. No increase of temperature was experienced; the wound suppurated freely and was kept open by plugging with a piece of boracic lint.

July 3rd. Very much improved, operation wound healing rapidly, deafness much less, no pain in temple, nor any return of the old symptoms.

July 21st. Discharged quite well.

CASE III.—*Abscess of Mastoid Cells.—Trephining —Cure.*

Michael D., æt. 41 years, admitted to hospital February 11th, 1884; married; six children, all healthy.

About three months before Christmas the patient received a blow on the head with an iron bar which fell from its place and struck him a little above the left ear. A lump formed but was not accompanied with much pain, and in a few days the swelling disappeared.

About a fortnight after the injury a strange sensation was felt in the left ear. He became partially deaf and subject to a constant drumming noise on the affected side. These symptoms continued for a fortnight, when pain set in rather suddenly and a dark coloured discharge began to come from the ear, and has continued up to his admission. A swelling was then visible and palpable behind the ear. Under medical advice this was poulticed. The swelling gradually disappeared, but the pain continued. He gave up work and soon after came under my care.

The mastoid swelling behind the affected ear is more diffused than normal, but not much more prominent. It is not very tender to touch and gives no indication of matter beneath. A foul discharge of dark yellow pus exudes from the large auditory meatus. The membrana tympani is imperfect and the posterior wall of the meatus is felt by the probe to be stripped of its periosteal lining. The patient seems to be almost deaf on this side, and complains of severe diffused pain over the side of the head radiating from the ear, in consequence of which his countenance has an anxious worn expression. Until March 19th the treatment consisted in gently syringing the meatus with boracic acid lotion and afterwards dusting it with powdered boracic acid. During this time the swelling behind the ear became larger and more and more painful. The discharge from the ear continued the same.

On March 19th I trephined the enlarged mastoid process behind and on a level with the meatus. When the trephine groove had been sunk to a depth of a quarter of an inch, the circle of bone came away and a large irregular cavity filled with dark-coloured bad smelling pus was exposed. The pus was cleared out and the cavity plugged with lint steeped in carbolic oil. The symptoms completely disappeared with the exception of the deafness, and on April 15th he was discharged to town with the trephine wound quite healed, the cavity in the bone obliterated, the discharge from the ear stopped and all the pain gone. He felt quite well and hardly knows that he is still almost deaf on that side.

These two cases illustrate the advantages of trephining in that very common disease inflammation of the mastoid cells which is mostly secondary to ear disease. Death from such a cause is by no means rarely met with, and I can lay my hand on several specimens of dried bone showing mastoid excavations made by imprisoned abscesses, that killed through the induction of meningitis and cerebritis or cerebral abscess.

The second case was a very satisfactory one to the operator in that he found a deep abscess whose odorous contents testified to the accuracy of the diagnosis and the danger to life. The only regret was that the operation had not been performed sooner, and some weeks of suffering saved.

The first case was more obscure, no swelling could be distinctly recognised, the symptoms were more cerebral than auricular, and it was only the history of the case and the urgent need of the patient that led me to explore. In the first operation the mastoid cells were not sufficiently open to relieve the tension of the more active area of disease situated probably beneath the dura mater, whence meningeal inflammation and nerve disturbance of a chronic kind had already spread, occasionally exciting vaso-motor disturbances, the direct mechanism of which we may guess at but need not waste space in describing until it becomes more than a guess.

POST-MORTEM EXAMINATION OF A CASE IN WHICH REMOVAL OF THE UTERINE APPENDAGES FOR MYOMA HAD BEEN PERFORMED THREE YEARS BEFORE DEATH.

By LAWSON TAIT, F.R.C.S.

In the brief paper by Sir Spencer Wells, in the *Medical Times and Gazette* for July 5th, that writer says: "We have still to learn much as to the effect upon uterine growths and out-growths of the removal of the ovaries. Vague unsupported assertions have little influence upon the opinion of a thoughtful or sceptical profession." For my own part I was under the belief that so much that was definite and thoroughly well supported had been written on this subject by many besides myself that it was a matter beyond the range of scepticism. The following small contribution may, however, help the unbelieving into a better frame of mind.

I have just received from Dr. Saundby a jar containing the uterus of a woman, aged 47, from whom I removed the uterine appendages for a large myoma on June 21st, 1881. At that time she was under the joint care of Mr. M. Hallwright and myself, for profuse menorrhagia, accompanied by intense pain. All other efforts having failed to relieve her, her health being completely destroyed and the tumour growing rapidly, I advised the operation. The tumour reached about an inch above the umbilicus, and the upper end of the incision necessary to reach the appendages was almost at that land-mark. Dr. George Fyfe, Dr. Savage, and Mr. Raffles Harmar were present at the operation. She made an easy recovery, and never lost a drop of

blood from the uterus after her convalescence, which was completed within a month. She rapidly gained strength and health and, as she said upon my frequent visits to her, had neither ache nor ail. She happened to live close to my house, and was therefore frequently exhibited to visitors. She has been seen and examined by Dr. Marion Sims, Dr. Battey, and Dr. T. A. Emmett. Ten days ago she suddenly began to suffer from symptoms of intestinal obstruction, and as this resisted all ordinary measures, I opened her abdomen for the second time last Wednesday, July 23rd. Dr. P. Sydney Jones, of Sydney, Dr. Vanderwar, of Albany, and Mr. J. W. Taylor were present. I feared, of course, that the obstruction was due to some adhesion of intestine to the stumps of the former operation, but I am glad to say that my fears had no foundation. I performed enterotomy, but she survived the operation only some fifteen hours. Dr. Saundby made the *post-mortem* examination, and removed the uterus entire. The myoma has shrivelled to the size of a small orange, certainly less than a tenth of its size three years ago, and there is no trace of ovaries, or tubes, or stumps, or ligatures. I have sent the preparation to the Museum of the Royal College of Surgeons, where Sir Spencer Wells can see it for himself.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

CASE WITH SYMPTOMS RESEMBLING THOSE OF LARYNGEAL PHTHISIS—LATER, TWO ATTACKS OF LOSS OF CONSCIOUSNESS IN QUICK SUCCESSION, THE LAST FATAL—LATENT HEPATIC ABSCESS OF CONSIDERABLE DIMENSIONS.

(Under the care of Dr. COCKLE.)

(From notes by Mr. M. N. Banerjea, M.R.C.S., L.S.A., House Physician.)

William H. Fowler, aged 35, a clerk by occupation, was admitted into the Royal Free Hospital, under the care of Dr. Cockle, on March 12th, 1884. Previous to admission he was under the treatment of a neighbouring practitioner, who sent him to the hospital as suffering from pneumonia. He had been abroad, and spent seven years in the United States, but lived the rest of his life in London. He returned from America eight years ago. Never had any illness till May, 1883, when he suffered from what was supposed to be "inflammation of the bowels," and remained ill until August.

The family history good. The present illness began four weeks ago with cough and pain in the chest, the cough gradually getting worse. On admission he appeared to be somewhat emaciated, was quite hoarse; complained of cough, pain in the chest, and night-sweats. He had clubbed fingers, and over the apex of his left lung there was impaired resonance, with crepitation. Heart sounds normal. The liver extended three inches below the ribs in the mammary line, but was normal in shape and consistence, smooth on the surface, and quite free from tenderness on pressure. There was some splenic dulness. Temperature 101·6°, pulse 100. Urine acid, sp. gr. 1,015, no albumen, normal in respect to quantity and colour.

From the 12th to the 15th not much change; the temperature keeps up between 101·4° and 102·4°. On the morning of the 15th the patient felt somewhat better, but in the evening, at 10 p.m., had a severe rigor, followed by profuse perspiration, the temperature running up to 104·6°, and coming down below the normal within a few hours.

On the 16th temperature below 99° till 6 p.m., when it began to rise, and was 103° at 12 p.m., when he had profuse diaphoresis without any rigor. 17th to 21st, temperature oscillating between 100° (morning) and 103·4° (evening). Night-sweats, but no rigor. On the 22nd, looking very pale, getting thinner, more hoarse. On the 29th, dulness at the base and lateral aspect of the left lung, especially in the axillary line; expansion less, breath sounds feeble, and harsh friction on the same side.

April 2nd, conjunctivæ slightly yellow; no change in the condition of the liver. On 3rd and 4th, conjunctivæ more yellow, skin not jaundiced, no hepatic tenderness. Between March 26th and April 5th the evening rise of temperature did not take place every day, but regularly every other day. During this period the temperature ranged between 100° and 103°. On the 5th, at 2 p.m., had a "fit" while in bed, lasting about seven minutes, during which time he lay unconscious and perfectly quiet, with occasional twitchings of the face. On recovery he did not know that there had been anything wrong, and no trace was left of the fit. On the 6th, felt as usual in the morning; at 5 p.m. had another fit similar to the one he had yesterday, and died within five minutes.

Autopsy.—Pleuræ adherent to the chest-wall, the adhesions on the left side being recent. Lungs—right lung normal, base slightly œdematous. Some consolidation of the base, and lateral aspect of the left lung. No tubercle or cavity in either. Heart and pericardium normal. Larynx—there was a small ulcer on the left vocal cord. Brain—nothing abnormal. Peritonæum—a little straw-coloured fluid was found in the peritonæal cavity, with a few flakes of lymph floating in it. No recent lymph on the coils of intestine. Around the bladder, the coils were matted together with old adhesions, but there was nothing abnormal on the mucous surface of the intestines—no cicatrix indicative of dysentery. Spleen enlarged and pulpy. Kidneys large, pale, slightly fatty. Liver—nearly the whole of the upper surface was adherent to the diaphragm by firm bands of old adhesions. The organ was uniformly enlarged without any bulging, and weighed 6½ lbs. It was of nutmeg appearance, and tough in consistence. The gall-bladder contained no calculi. On section a long anfractuous cavity, lined with a very thin but firm and semi-transparent membrane, with no inflammatory thickening around, was found to extend from the junction of the posterior and external borders of the right lobe to the transverse fissure, then taking a course parallel to the fissure, and finally terminating near the margin of the left lobe. The cavity, about three inches wide and one inch deep, was situated posteriorly in relation to the thickness of the liver, a thin layer of liver-tissue intervening between it and the transverse fissure; it contained a thick creamy substance of the consistence of treacle, which, on microscopic examination, was found to consist of pus cells. Two round and circumscribed growths, each about two inches in diameter, and several pea-sized granulations of the same structure were embedded in the substance of the liver, one of the two large growths being soft, disintegrated, and apparently undergoing cheesy degeneration. Sections of the nodules were examined by Mr. Eve, who has kindly furnished us with the following notes:—

"The greater part of the sections submitted to me for examination consisted of loose fibrous or connective

tissues having an areolar arrangement, and containing very few nuclei. But in portions it passed by gradual stages of transition into a tissue composed of small inflammatory cells, intermixed with granular material. The mutual relations of these structures teuded to show that fibrous tissue had been in process of formation by the small-celled inflammatory tissue, which (as could be seen at one part of a section) had invaded the surrounding liver substance. It was observed that the inflammatory cells occasionally were aggregatcd into rounded masses or clumps resembling giant-cells of moderate size, but the giant-cells were not continuous with a reticular stroma, nor was any other evidence of tubercle present. The microscopic appearances lead to the conclusion that the nodules (from which the sections were taken) were inflammatory new formations, either owing their origin to the same exciting causes as that producing the abscess, or perhaps occupying the sites of small necroses of the liver substance which had not suppurated."

Remarks (by Dr. Cockle).—The case detailed presents points of much interest, both as regards the possible duration and, until towards the close of the case, the entire latency of hepatic abscess, so far as regards any subjective phenomena. Physical examination revealed great increase in size of the liver, a firm and uniformly smooth coudition of the surface of the viscus, but without the slightest pain or tenderness either spontaneously arising or elicited upon firm pressure. Indeed, such condition seemed somewhat suggestive of amyloid change, associatcd as it was with splenic enlargement. The chest symptoms were alone promiuent, and apparently pointed to laryngeal phthisis. They would seem to have arisen as a more or less independent affection. How long the hepatic abscess may have existed is matter of opinion; also, whether it could have resulted from the "inflammation of the bowels," or had an earlier origin in malarious disorder. Looking to the great weight and size of the liver—its tough texture and nutmeg aspect, the inspissated pus, and the condition of the cyst-membrane—I hazard the conjecture that the abscess originated in malarious poison imbibed long ago, and probably giving rise to hepatic symptoms so little accentuated as to have left no record in the memory.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

(Under the care of Mr. EDMUND OWEN.)

(From notes taken by Dr. CHAFFEY.)

Cleft Palate.

J. M., a healthy-looking boy of eight years, was admitted on April 28th, for a wide cleft, extending through the whole length of the hard and soft palate; the hare-lip with which the cleft had been originally associated had been closed several years previously by Mr. Pollock. Chloroform was administered on a piece of lint, and a strip of mucous membrane was liberally removed from each side of the cleft from behind the incisor teeth to the tip of the uvula. The hard palate having a high arch, the flaps of muco-periosteum came well together after being detached by the raspatory. About twelve sutures of fine silver wire were introduced, and the approximated edges were set frec of all tension and muscular strain by an incision made through the tissues of the soft palate. Just behind the incisor teeth one horse-hair suture was inscrted, the tissues there being too thin and friable to stand the strain of the tubular needle and wire. When the operation was nearly finished a delay occurred on account of a collection of mucus and clot having caused serious impediment to respiration. The administration of a subcutaneous injection of ether roused the boy and brought about a clearing of the larynx so that the operation could be completed. After the lapse of a week, during which time the boy was fed on fluid diet, the mouth was examined, when it was found that primary union had resulted everywhere except at the junction of the hard and soft palate, where a granulating aperture of the size of a pea remained. This steadily diminished in size, and when the boy was last seen was all but closed.

After the operation Mr. Owen remarked that success depended very much on having perfectly raw surfaces in close apposition throughout the entire extent of the fissurc, and that if an error be committcd in the removal of the mucous edge of the clcft it is probably that too little is removed, not too much. A few years ago he was in the habit of dealing with the cleft in the soft palate first, leaving that of the hard for a subsequent opcration, now he invariably dealt with the entire cleft at a single operation.

Fæcal Umbilical Fistula.

There have recently been two cases of this chronic affection in the Louise Ward, and in each instance a cure was permanently established. The treatment consisted in thoroughly clearing out the alimentary canal by purgative and enema, and then in keeping it in a state of absolute rest by the continuous administration of small doses of opium. At the same time cod-liver oil was prescribed, and the wouud was left undisturbed under a pad of dry wool.

Medical Times and Gazette.

SATURDAY, AUGUST 2, 1884.

THE Medical Act Amendment Bill reccived its *coup de grace* from the Prime Minister on Friday, last week. Mr. Gladstone did not affect any great regret at having to send the Bill to join the majority of the Government measures, but was content to say, that having regard to the convenieuce of hon. members and to the circumstances of the Session, the Government did not intend to proceed any further with the Bill during the present Session. Two causes not mentioned by Mr. Gladstone combined, however, to kill it, and those causes were the real indifference of the Ministry, as a whole, and of our legislators to the measure; and the quarrels of the medical licensing bodies. No doubt Lord Carlingford and Mr. Mundella greatly and honestly desired that the Bill should become law. They have worked very hard to make the measure a valuable one from the point of view of the public, and to disarm the opposition of the Univcrsities and Corporations; and they earnestly wished to be rid of a very troublesome task. The existing Government would also have been pleased to have had the credit of carrying medical reforms which successive Governments and a Royal Commission have declared to be of immense importance to the public welfare; aud it can hardly be doubtcd that they could have carried the Bill this year had they determined to do so, for it had reached the Committee stage and could have been pressed forward at any hour of the day or night. But that was just

what they did not care to do. They felt no very strong or intelligent interest in the matter, and they knew that the vast majority of the members of the House are Gallios as regards matters medical; and just when the fate of the Bill was trembling in the balance, just when the House had been informed that it was hoped the chief opponents to the measure had been satisfied, and its way been made smooth, opposition burst out on new as well as old grounds, and provided Government with an excuse for dropping the Bill. The Ministers in charge of it, in their anxiety to succeed, accepted from Sir Lyon Playfair an amendment affecting what had seemed to be one of the essential points of the measure—the management of the final examinations—but while this was so arranged as to satisfy the Scottish Universities, it did not please all the English bodies; and the weakness shown in adopting also, we believe, some urged changes in the constitution of the Medical Board for Scotland, only changed the form of, instead of appeasing, the hostility to it. It was clear that the measure would still be sturdily opposed, and that the most determined opposition would come from the tenacious Scotch; and may it not be suspected that while the Prime Minister for the time being represents Midlothian, no Scottish University or Corporation will be seriously harried or worried? Be that as it may, the final determining cause of the withdrawal of the Medical Act Amendment Bill was the opposition excited by jealousies between the Scottish licensing bodies.

Is the loss of the Bill to be much regretted? The answer to that will depend largely on the degree of belief held in the self-reforming tendencies or intentions of the licensing bodies. We are very sorry to lose the proposed re-organisation of the Medical Council, and the provision prohibiting the registration of half-qualifications. We are inclined to believe that the new Medical Council would have shown itself strong enough to put down examinations made attractive by too tender a consideration for weak candidates; and would have exercised generally a useful and not meddlesome supervision over the qualifying bodies. But we confess to grave doubts whether the amended Playfair Amendment would have been workable; and it seemed to us to have taken away one of the chief reasons for the creation of the Medical Boards. One of the greatest evils, however, that can follow the loss of the Bill will be the renewal next year of the agitation for legislation; and, whether that will happen or not, and to what extent it may recur will very much depend on the use that the various licensing bodies in the three divisions of the kingdom make of the time again given them to reform any weak points in their proceedings. No doubt the English Colleges will proceed to carry out their conjoint scheme; and it is much to be desired that they should lower the fee for their conjoint qualifications, which if we remember right is at present fixed at thirty guineas. The Apothecaries' Societies will, it is to be supposed, strengthen their position by including surgery in the subjects of their examinations, and they will have to make these generally so good that the awakened Medical Council will be able to consider that they afford a fair though not a high test of fitness for general practice. And some of the Scottish Corporations need to reform their examinations in some way. The last list that we published of candidates, twenty-five in number, who had passed the final examination for the licence of the Royal College of Physicians of Edinburgh, does not contain the name of a single Scottish student. Is it to be believed that the candidates were not attracted there by a belief that the examination was less severe than that of the English College? We will at present say no more on this subject, but we feel sure that if the licensing bodies act wisely now they may to a large extent disarm any future agitation for a Medical Act Amendment Bill.

On Monday last, when the House of Commons went into Committee of Supply on the Army Estimates, a long discussion arose on the Contagious Diseases Acts. Mr. Puleston, Mr. Cavendish Bentinck, Dr. Farquharson, Major-General Fitzwygram, the Commanding Officer at Aldershot, Mr. Acland, and some other members complained of the results that have followed the suspension of the compulsory clauses of the Acts. Nothing new was perhaps said with regard to this; but ample evidence was adduced in proof of the evil effects, moral and physical, of the change made last year in the administration of the Acts; and there was a consensus of opinion that it has resulted in a large increase of moral and physical evils in the districts to which the Acts had previously been applied. The Secretary of State for War admitted that the health of the Army had suffered, though slightly he said, from the change; but he maintained that the effects in this respect had been exaggerated, and he contended that the Acts were not passed for moral but solely for sanitary purposes; and Mr. Campbell-Bannerman spoke in a like strain with respect to the effects produced upon our sailors, so far as concerns the Royal Navy. But this must surely be felt to be a very lame and sorry reply to the unquestionable proofs that the abolition of the compulsory clauses of the Acts has resulted in marked increase of general and especially of juvenile immorality, and of physical evil? It cannot but be that the subject will be brought forward again and again till some fresh, large, and well considered measure is adopted to protect the public as well as our soldiers and sailors from all the evils arising from the spread of the diseases with which the Contagious Diseases Acts were intended to deal. The social morality of the public at large must be cared for as well as that of the Army and Navy.

On Monday evening, Mr. Hopwood asked the Secretary to the Local Government Board whether it was a fact that a child had lately died, in Hull, from erysipelas which had appeared soon after vaccination; and whether there was any cause of the erysipelas but the vaccination. The case merits a brief notice, because, as stated by Mr. Hopwood, it affords much more plausible ground for the allegation of "death from vaccination" than can be found in the great majority of such accusations. Mr. Russell's reply, however, made it quite clear that vaccination had no

share in causing the death in this case. The child (a boy named Best) was vaccinated on June 9th, and in the second week after vaccination contracted erysipelas from which he died on June 30th. He was attended by a medical man, Mr. Cooper, who certified that he died from "general erysipelas," and even in communicating this information to the public vaccinator, stated that the erysipelatous affection began on the child's neck; that it next extended down the unvaccinated arm and the same side; and that the vaccinated arm was affected last and least. Mr. Cooper had stated that he saw no special connection between the erysipelas and the vaccination. The Board had learned that the other children who were vaccinated from the same source as the child Best, had had nothing the matter with them beyond the ordinary phenomena of vaccination.

The National Health Society have, as is well known, done very good service to the public by publishing, and of late broadly distributing a well-written and sound pamphlet, entitled "Facts Concerning Vaccination," and the value of the pamphlet was enhanced by the fact that it had been revised by the Medical Officer to the Local Government Board, and had been recommended by the Board as likely to prove of good service in house to house visitation. These things disturbed the peace of Mr. Hopwood, one of our most ardent anti-vaccination legislators, and he tried, on Thursday sennight, to get the Parliamentary Secretary to the Board to admit that certain statements contained in the pamphlet as to the safety and harmlessness of vaccination had been disproved by Dr. Cory's experiments upon himself. But Mr. G. Russell said that the Committee of Medical Experts appointed to report, had expressly stated that "the infants from whom Dr. Cory took lymph for his experiments upon himself were in such a condition of obvious syphilitic disease as would certainly have precluded their use as vaccinifers by even an inconsiderate and reckless vaccinator. Indeed, they were selected by Dr. Cory for his self-vaccination because they were unquestionable syphilitic cases." The rule of practice with the profession is not to take lymph from a child suspected in any degree whatever of being syphilitic, or of having any skin disease; and the Local Government Board strictly enjoin the observance of this practice upon all public vaccinators. Consequently the Board could not see that the result of Dr. Cory's unhappy experiments had made it necessary to alter in any way the statements objected to by Mr. Hopwood. They still hold that "with due care in the performance of vaccination, no risk of any injurious effects from it need be feared," and that such mischief as the communication of a foul disease by vaccination can only happen through gross and culpable carelessness.

Our Paris Correspondent writes:—The cholera was again the theme of discussion in the Academy of Medicine on Tuesday, but it must be confessed that the subject is growing rather stale. The venerable Dr. Guérin, who in spite of his age (he is upwards of 84) still retains his wonted impetuosity and spirit, had at the previous meeting delivered an able speech in favour of the spontaneous growth of cholera, and the identity of cholera nostras and Asiatic cholera. In a long and substantial reply, Dr. Proust traced back the epidemic both at Toulon and Marseilles to importation, and exonerated the official scientific bodies from the reproach of inertia, which has been urged against them from different quarters. Dr. Besnier followed Dr. Proust and defended similar views with somewhat different arguments. He ended by expressing the wish that a chair of epidemiology should be founded in all the medical faculties of the Republic. The public at large are getting tired of this protracted discussion, which has done little except bring into more distinct evidence the discrepancies between the opinions of scientific men upon this interesting but obscure subject.

The appearance of cholera has by a most natural consequence brought forward a crowd of communications, laid before the Academy of Science and the Academy of Medicine, for the prevention and cure of the disease. The "Prix Bréant," in favour of those who contribute to the knowledge of the origin or treatment of cholera, has elicited this year no less than 360 communications; while at the Academy of Medicine Professor Beclard read a teeming list of proposed remedies, some of which are of a rather extraordinary nature. One gentleman proposes to dispel the miasmatic influence by firing guns in unlimited numbers, it being well known that this military proceeding has the effect of purifying the atmosphere. Another proposes to create an artificial winter, by disposing over all France a system of mirrors, so arranged as to reflect back the sun's beams as fast as they come, a method which might perhaps meet with some opposition from the agriculturists.

Professor Hoyen has just published an elaborate lecture in the *Revue Scientifique* on the treatment of cholera, in which he chiefly advocates ipecacuanha and opium in the earlier stages, and black sulphide of mercury, with salicylate of bismuth, in the more advanced periods. When the patient falls into the state of algidity and collapse, the professor recommends the intravenous injection of the following solution:—

Aq. Simpl.	1,000	parts.
Chloride of Sodium,	5	„
Hydrate of Sodium,	1	„
Sulphate of Sodium.	25	„

At Marseilles and Toulon the cholera seems to be gradually subsiding. The deaths from the epidemic at Marseilles, since its outbreak, amounted to 1,000 on the 25th instant. But while the disease is dying out in the two above-mentioned ports, it spreads unquestionably in Provence. A very serious epidemic prevails at Arles, where out of 25,000 inhabitants, 20,000 have emigrated. There exists also a serious visitation at Aix, and smaller places are also contaminated. No cases of Asiatic cholera have been hitherto recorded in Paris. All the necessary precautions in case of an outbreak have been taken beforehand.

The Government have very wisely reprinted some extracts from the reports of the Medical Officer and Medical Inspectors of the Privy Council, dealing with previous outbreaks of cholera. These have been bound up with a preliminary report by Dr. Buchanan, and with the memorandum of precautions recently issued by the Local Government Board, and the whole may be purchased for the small sum of fourpence.[1] The reprints, says Dr. Buchanan in his preliminary report, are intended to serve a double purpose. "The extracts from the reports of the medical officer exhibit, at greater length than in a memorandum, the doctrines concerning cholera in Europe which have been continuously held by the principal medical advisers of the English Government. We may believe that they are commanding more and always more adherents among sanitary authorities on the Continent, though hitherto they have not obtained sufficient recognition in practical effort. The extracts from reports of Medical Inspectors on the other hand are primarily intended for the assistance of those who may have to deal with local conditions provocative of cholera or with any outbreak of the disease in England. It is hoped that both series of extracts may at the present moment be of service as indicating the true lines of preventive action against the disease which is now threatening Europe."

At the Health Exhibition on Friday evening Dr. de Chaumont delivered a lecture on the Prevention of Cholera to a numerous audience. The most important point in the advice he gave was, in our opinion, his warning about disinfectants. Fire, he said, was the only true disinfectant, most so-called disinfectants being simply deodorants. If there existed a system of drains properly flushed and properly protected, there would be no need for disinfectants. Unfortunately, the use of disinfectants was often only an excuse for uncleanliness and insanitation. As to the prospects of an outbreak of cholera in England, Dr. de Chaumont observed that, although it was unsafe to prophesy, yet he felt pretty confident that if cholera did reach British shores it would obtain no foothold. He did not say that it would not come, but he did say that there was every reason to hope that the English people would escape it. If they did escape, he thought he might say that it would be entirely due to the improvements in sanitation which had taken place, especially in the large centres of population in recent years. This, however should not lead to the relaxation of precautions, but rather to greater care in enforcing them, so as to make assurance doubly sure.

The first of the Autumn Congresses—that of the British Medical Association—opened on Tuesday last, when the President, Dr. Cuming, of Belfast, was introduced by his predecessor, Dr. Waters, of Liverpool, and delivered his presidential address to an audience well representing the medical profession in the three kingdoms. We have sufficiently commented on this address in another column, as also on the able address in medicine, delivered by Dr. Ord on the succeeding morning. After Dr. Ord's address, the President announced that Dr. Foster had been elected President of the Council, in room of Mr. Wheelhouse, of Leeds, and Dr. Foster in his new capacity announced that the Council had agreed to accept the invitation of Cardiff next year, and that they had elected Dr. Edwards of that town President. On Wednesday afternoon the work of the sections commenced, and there was considerable crowding to the Section of Surgery to hear Sir William MacCormac's opening address. Unusual interest attached to this oration; in the first place because there was this year no general address in surgery, and in the second place, because the speaker is himself a Belfast man, a great favourite with the profession, and celebrated as a congress-caterer. Sir William MacCormac did not disappoint expectation. His address was long, thoughtful, and business-like, and astonished even his admirers. Dr. Savage opened the proceedings in the Psychological Section with a long address on which we have expressed our views elsewhere. In the other sections the presidential addresses were shorter. In the Section of Obstetrics, Dr. Godson, with excellent taste, refrained from putting himself in competition with Dr. George Kidd, who is to deliver the address in Obstetric Medicine this (Friday) morning. In the Section of Pharmacology and Therapeutics, Dr. Maclagan chose for the subject of his address "Methods of Therapeutic Research," while in the Section of Public Medicine, presided over by Dr. Cameron, M.P., papers were read on the "Prevention of Epidemics," "Quarantine," and "Cholera."

The Section of Ophthalmology was opened with a short address from the President, Dr. McKeown, and subsequently Dr. Wolfe, of Glasgow, brought forward some subjects of great practical interest. He showed two cases in which adhesion of the lids to the eyeball caused by burns had been cured by transplanting conjunctiva from the rabbit. By this contrivance vision and mobility are restored to a class of cases which must otherwise be regarded as beyond the reach of remedy. This operation, which was introduced by him some years ago, has proved successful in the hands of American and Continental Surgeons, and we presume that even anti-vivisectionists will find no fault with the procedure. We have previously referred to Dr. Wolfe's operation for separation of the retina as a real advance in eye surgery. The case which he showed to the Glasgow Medico-Chirurgical Society, in April last, was again shown at Belfast, on Wednesday. The patient can now tell the time on the seconds pointer of a watch, and thread a needle, so that the recovery from absolute blindness thus effected may now be looked upon as not evanescent. In opening a discussion on cataract, Dr. Wolfe stated that during the last twenty years he had operated in 975 cases of cataract, in which corneal section was made, and that out of so many he had only six in which corneal suppuration supervened. His method for extraction of cataract, in which every cause of failure is eliminated,

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[1] Sold by Knight & Co., 90, Fleet Street; Shaw & Sons, Fetter Lane; Hadden, Best, & Co., West Harding Street, Fetter Lane; and P. S. King & Son, Canada Buildings, King Street, S.W.

was first published, he said, in the *Lancet* in 1868, and its advantages were now beginning to be recognised and adopted by surgeons of repute in this and other countries. To demonstrate the applicability of his operation to local and constitutional complications, he showed a patient in an advanced state of diabetes on whom he had operated for cataract successfully a fortnight previously. On Wednesday evening the President and Council gave a most successful *conversazione* in the rooms of Queen's College.

On Thursday morning Professor Redfern delivered the address in Physiology, which was chiefly devoted to the consideration of the lymphatic system, a subject which is also to be introduced for discussion in the section by Professor Charles, of Cork. The sectional meetings were resumed in the afternoon, and in the evening the Annual Public Dinner of the Association was held in the Examination Hall of Queen's College.

The Imperial Carolinische Leopoldinische Academy of German Naturalists has just presented its highest mark of consideration, the gold Cothenius medal, to Dr. Heidenhain, of Breslau, on account of his researches on the Secretion of Glands and the Physiology of Muscles, which are of abiding value in physiology.

The Conferences at the Health Exhibition have been continued almost daily since our last issue. On Thursday week the Society of Arts held the conference on Water Supply, which, but for the death of the Duke of Albany, would have been opened as the first of a series by the Prince of Wales, but which was now held under the presidency of Sir Frederick Abel. The consideration of the subject was limited mainly to its geological, medical and chemical aspects, legal and financial difficulties being put on one side. Several papers dealing with the sources of water supply were read on the first day, but the papers which were of most interest to the medical profession were taken on Friday. The first of these was by Professor Sorby, F.R.S., who dealt with the much-vexed question of the purifying action of minute animals and plants on water contaminated by sewage. The author had proved by experiment that the entomostraca in particular might be kept alive for months by feeding them on excrementitious matter, and there was no doubt that an immense amount of sewage material was consumed by these animals. It could not be supposed, however, that these comparatively large animals removed, except incidentally, such minute objects as disease germs, but it was well worthy investigation whether the more minute infusoria consumed such germs as a portion of their food. He had not been able to examine this question critically, but was inclined to think that even particles the size of germs might be consumed by beings only 1-1,000 inch in diameter. The influence of minute plants was also very great in purifying and oxygenating water. Professor Odling read a paper, in which he attempted to show that there is no presumption of the presence in river waters of disease-producing organisms, and what little was known of their life history, and the evidence from what had been observed of the effects on the health of populations would lead to the inference that they do not develop, propagate, or exist in such water so as to be capable of acting prejudicially. Mr. Mitchell, commenting on Professor Sorby's paper, drew attention to the recent method of detecting the presence of bacteria in water by cultivating the spore in the way followed by Dr. Koch. He mentioned that for the last two years the process had been adopted in the examination of the water supply of Berlin.

The conference on School Hygiene convened by the National Health and Medical Societies of London, was opened on Monday, July 28. The chair was taken by Dr. F. J. Mouat, in the absence of Sir A. Clark, and Professor de Chaumont delivered an address on "School Dietaries," bristling with facts and figures. Approaching his subject from the scientific standpoint of the potential energy contained in each form of food and the work done by the boys or other persons in question, including of course the vital processes within the body, he criticised severely nearly all the fixed dietaries that had come under his notice as being either insufficient to supply energy for the work required, or as presenting an actual or a relative deficiency of one or other of the food stuffs. The effects of a continued insufficient supply of food were, he said, first that the organism was compelled to consume its own materials, and later a general reduction of the bulk of the tissues by a process of fatty degeneration which could never be repaired when it once reached a certain point. Ill-fed children grew up stunted and feeble in body and mind, with little resisting power. Any increase of work called for an increase of food to supply the necessary force, a fact too often ignored. Variety too was essential, and men or children, sooner or later, loathed and rejected a monotonous diet however good in itself, and, what was more remarkable, even an insufficient supply. In proof of this the speaker instanced the experience of the Duke of York's School at Chelsea. He then went on to consider what practical diet would fulfil the required conditions, and recommended milk, meat, cheese, whole meal bread, fresh vegetables and fat in some form or other, the last often being a matter of some difficulty. To diminish the indigestibility of the albuminates of cheese and beans, he recommended the softening of these by a small quantity of bicarbonate of potash as recently suggested by Mr. Mattien Williams. Dr. Pringle, who followed, quoted his experience of the Indian prisons where the prisoners, compelled to work hard on a diet calculated on that of the indolent free population, lost weight rapidly; and also of the great Indian famines in which the natives of Orissa, though able to obtain an unlimited supply of fish, died of starvation as rapidly as did those of the interior on their scanty allowance of rice, both diets being alike deficient in one or other of the food stuffs. Mr. Bousfield gave an interesting account of the penny dinners now being given to Board School children and Dr. Alder Smith, Medical Officer of Christ's Hospital,

gave a history of the improvements effected in the school diet during the fourteen years he had held that position, especially in an unlimited supply of bread, and an increased allowance of milk. A special breakfast was provided for delicate boys, and a second supper for those who have to study late. Several medical officers to workhouse schools contributed their experiences, and Dr. Mouat referred to facts which he had gathered in India and at home.

On Tuesday the most important subject of the week came on for consideration—over-pressure in schools. We have considered the discussion more fully elsewhere but may state here that it was most ably opened by Mr. Pridgin Teale, who thus summarised his experience :—That examinations are powerful agents, capable of doing harm as well as good. That work for examination is essentially work done under pressure and with anxiety, and is physically exhausting. That, whereas, in view of the physical well-being of the community, examinations ought to be as few as possible and at long intervals, they are being multiplied with a recklessness which can be explained only on the supposition that the physical and medical aspect of education has been entirely left out of consideration. That the element of competition greatly intensifies the physical strain of examinations ; that a further aggravation of the physical strain is produced by the imperfection of examinations which test, and, by testing, enforce in education a loading of the memory rather than a training of the faculties. That the multiplication of subjects to be studied for examination is a growing evil, and deserves condemnation both from a physical and educational point of view, and that the arrangements for higher education ingeniously provide a constantly increasing pressure upon the rising generation.

Mr. Brudenell Carter, who followed, brought forward evidence to prove "that the long hours of confinement in what is too often a vitiated atmosphere, coupled with other ordinary conditions of school-work and discipline, exert a hurtful influence upon the physical development of the frame, especially upon the heart and lungs and upon the organs of vision, and that this influence is so considerable that it must already be regarded as a matter of national importance." Mr. Carter stated among other facts, that in one of the London Board-schools defective vision was found in one-fourth of the scholars. Dr. Shelly next read a paper in which he condemned the modern system of punishment by "imposition" which he considered much more cruel and prejudicial to health than moderate corporal punishment. The discussion was continued by Sir Joseph Fayrer and Dr. Crichton Browne, the latter making a very powerful speech, and was subsequently joined in by many others. Mr. C. Kegan Paul bore the chief onus of defending the Code, but his contention that the evils of over-pressure are exaggerated and unreal did not meet with any general acceptance.

On Wednesday the Conference considered the question of the prevention and treatment of outbreaks of epidemics in elementary and in public schools, Dr. George Buchanan, F.R.S., occupying the chair. The first paper was read by Mr. T. J. Dyke, Medical Officer of Health for Merthyr Tydfil, who advocated the closure of schools during outbreaks of scarlatina and measles, in place of excluding infected and infective children. He quoted several instances in his own district, which he conceived to lend support to his recommendation, but his statistics seem to us open to criticism, as being in some cases fallacious, or wanting in precision as regards dates, &c., and in others capable of very different interpretation. Dr. Alder Smith followed with a masterly paper "On the Preventive Treatment of Infectious Diseases in Public and High Schools." He insisted on the necessity of undivided medical responsibility. One medical man, and one only, should, he said, have the entire school under his daily supervision, and he should be responsible to the governors only. In large schools he would have the younger and older children in separate establishments, in order that epidemics, to which the former are more liable, should not interfere with the more important work of the latter. He recommended a primary certificate on entrance, stating the diseases a child had already had, that the number susceptible of any particular disease might be known, as well as certificates on the return of boys to school of any risk they may have run of infection. He discussed the isolation of cases for febrile symptoms which might indicate the invasion of disease, the arrangements for separation of such as were actually attacked, and the difficulties introduced by the mixture of day scholars with boarders. A disinfecting oven he held to be an indispensable adjunct to every school, and expressed his utter want of reliance on any assurances of disinfection performed at home. He described the precautions taken, and the procedure followed in his school, the periods of incubation, and the quarantine accordingly observed, as well as the periods at which he believed convalescents from each disease might be allowed to return. As evidence of the soundness of these views and practices, he stated that during his term of office there had been 25 outbreaks of scarlatina in Christ's Hospital, of which 23 had been immediately suppressed. These 23 included 17 isolated cases, four sets of two cases, and two of three cases. The other two were of 23 and 33 cases respectively, but the last, which hung about the place for three months, was the only one in which the efforts at arresting it could be considered unsuccessful, for the former consisted of two batches of almost simultaneous cases ; ten occurring within five days, and 13 more derived from these just five days later ; the second batch were isolated, and no further case appeared. Mr. Pridgin Teale, Mr. Ed. Chadwick, and other gentlemen took part in the discussion.

The Paris Faculty of Medicine has been called upon, according to the traditional rules, to present a list of three candidates for the vacant chairs of the late Professor Wurtz, and of Professor Gosselin, who has lately resigned. It is invariably the custom for the Ministers to nominate the first on the list. For the chair of surgical pathology, the list bore the

names of Drs. Lannelongue, Tillaux, and Le Dentu. For the chair of chemistry, the names were those of Drs. Gautier, Bouchardat (son of the venerable professor of hygiene), and Henninger. Drs. Lannelongue and Gautier may therefore be considered as virtually nominated. Drs. Campenon and Za Paguier have just been nominated surgeons to the hospitals of Paris, after a long and serious competition.

Baron Mundy's paper at the United Service Institution, on Tuesday, was one in which just at the present moment no one can help feeling some interest. The object of it was to consider the best means of affording aid to the injured after a railway accident. His proposal, and it seems to us a very sensible one, is that at intervals along the great railway thoroughfares, ambulance waggons should be kept in readiness with supplies of surgical instruments, bandages, and other things likely to be wanted. Better apparatus ought, he thinks, to be devised for extricating the injured from beneath the carriages, and a register should be kept at every railway station of the name and address of medical men in the district, bearing in mind (and this is the only point on which we are disposed to quarrel with the distinguished lecturer), he says, that the least capable surgeon would be more useful than the ablest physician. As regards London at any rate many of our leading physicians have seen a good deal of surgery as dressers and house surgeons, and could if need be, we doubt not, prove that their hands had not forgotten all their cunning.

The electric-light ambulance drill at Aldershot on Thursday se'nnight, on which we had a brief note last week, was a distinct success, the only failure apparently being in occasional aberrations on the part of the illuminating agent. The arrangements, under the direction of Mr. H. R. O. Cross, A.M.D., were well carried out, and it was seen that not only were the members of the bearer column well up to their work, but that the illumination was such as to enable them to apply the necessary dressings to the presumed wounds with all accuracy and despatch. The demonstration was witnessed by many distinguished authorities, including Sir Joseph Fayrer, Surgeon-General Gilborne, Surgeon-General Mackinnon, Dr. Crawford (Director-General of the Army Medical Department), Dr. Farquharson, M.P., Dr. Don, Professor Longmore, C.B., Mr. Cantlie, and M. Ellissen, of the French Red Cross Society, all of whom expressed themselves satisfied that the application of the electric-light would be an important innovation in the surgery of the battle-field.

The first ordinary meeting of the Medical Officers of Schools' Association was held in the rooms of the Medical Society on last Thursday week, and was well attended. In the course of a brief Presidential address, Surgeon-Major Evatt congratulated the members upon the fact that the association had already been joined by the medical officers of two-thirds of the principal English schools, and indicated some of the many ways in which mutual and general advantage should accrue from their work in the wide field thus opened out to them. Dr. Andrew read a paper on "The Prevention and Treatment of Epidemic Disease in large schools." He pointed out that, in connection with the so-called specific febrile diseases, there were still many questions shrouded in obscurity, and that the members of such an association were placed in an exceptionally favourable position for working towards their elucidation. Special mention was made of such points as the incubative period of the specific fevers, which Dr. Andrew considered to be not nearly so uniform as is stated in the text-books; the possibility of establishing the existence of symptoms during the period of incubation, and thus rendering possible an earlier recognition of the malady, and an earlier, and so more effectual isolation of the patient; the recognition of those conditions which determine the production of different types of the same disease — of scarlatina, of enteric fever, and of diphtheria, for example; the relation of the different forms of disease to one another—as of scarlet fever to rheumatism; and their influence upon each other—with especial reference to those cases quoted by Professor Paget, in which the occurrence of enteric fever appeared to produce an increased susceptibility to the action of the vaccine virus—and presumably to that of small-pox itself. Dr. Andrew observed that such an association possessed special opportunities for tracing the development of inherited peculiarities, and for determining the best modes of correcting hereditary diatheses; as well as for collecting and formulating opinions as to the best practical plan for the construction of school buildings, especially in connection with the important question of readily providing for the early and complete isolation of infectious cases; and he asked the opinion of members as to the desirability of providing separate establishments for pupils under 12 or 13, and for those above that age—a plan which, in the case of Christ's Hospital for instance, has conferred upon the school appropriated to the older boys a noticeable comparative immunity from the specific maladies of adolescence.

Several speakers took part in the discussion which followed. Amongst them, Dr. Alder Smith referred to the first piece of Collective Investigation yet undertaken by the association, viz., the series of questions as to their usual methods of dealing with the different phrases of the three common specific exanthemata which was lately issued to the principal schools in the country. The answers to these questions had been laboriously analysed by Dr. Cronk, of Repton School; but the replies in most instances varied within such extraordinarily wide limits as to render their classification almost impossible. This fact alone might be held to justify the formation of such an association, while it demonstrated the need for wider investigation and fuller enlightenment. The time of isolation, and of quarantine, the necessity for securing the thorough disinfection of the patient and of his clothing, &c., and the means by which this was to be accomplished, were matters as to which school doctors were proved to differ to an extent almost inconceivable. To these and kindred questions Dr. Alder Smith also drew attention at the conference held on Wednesday at the Health Exhibition.

Some of the speakers admitted that they would have spoken more freely on certain of the points which arose in the course of the discussion, but for the presence of a short-hand reporter. It was pointed out, however, that no medical officer was bound to jeopardise his own position by the specific denunciation of any obstacle with which he had been obliged hitherto to contend in vain. At the same time, it was most undesirable, and would place the association in quite a false position and greatly cramp its capacity for good, if the sense of its general meetings were to go forth to the public as an expression of satisfaction with scholastic management in general, coupled perhaps with a unanimous resolution against an equally general abuse, while the real state of things, the nature of the evil, the method of its harmfulness, and the means by which it is to be avoided or done away, were only to be discussed *in camerâ*.

Publicity can only do harm to such a movement if it be shunned. The general public is becoming remarkably alive to its interest in hygiene, and is ripe for instruction in its principles; those who will honestly and fearlessly lead and direct it towards the truth in these matters need not fear its frown. The great majority of the masters and governing bodies of schools (and the rest may be trusted to follow the popular lead in such matters) feel that it is important to their own interests that they should be abreast of the health-science of the day; not a few of them have a genuine appreciation of its importance. We believe that, so long as it is true to itself, the Association of Medical Officers of Schools—speaking with the voice of a special collective and unanimous authority—will find its hands greatly strengthened for the introduction of reforms where reforms are needed, and for the correction of abuse where such exists. Such school authorities as may at first feel inclined to doubt the necessity of a hygienic reformation will at least realize the impolicy of endeavouring to check its progress.

On Thursday, July 24th, Dr. Edward Hamilton was elected Joint Professor of Surgery in the School of the Royal College of Surgeons in Ireland, in room of the late Dr. James Stannus Hughes. The voting was very close, Dr. Hamilton receiving ten votes, and Dr. Anthony H. Corley, eight. Dr. Hamilton is an Ex-President of the College, and Surgeon to Dr. Steevens' Hospital, Dublin. He is an able surgeon and a fluent speaker.

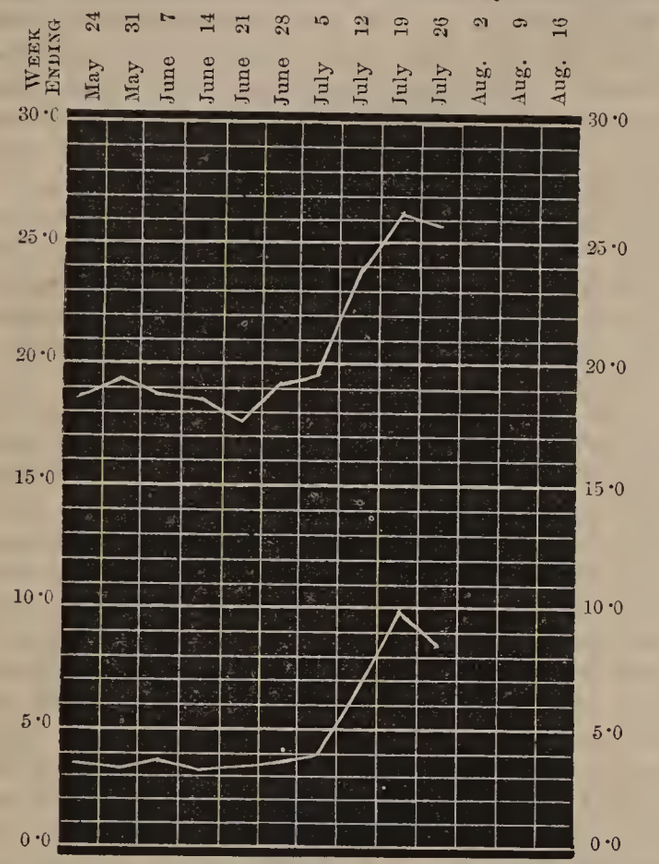
At Londonderry Assizes, on Saturday, July 26th, before Baron Dowse and a special jury, an action for libel, which cannot fail to interest all members of the profession, came on for hearing. The plaintiff, Mr. Edmund Murphy, is a medical practitioner residing at Dunfanaghy, co. Donegal, and the defendant, Mr. Daniel McSweeney, ex-suspect, Falcarragh, co. Donegal is a Poor Law Guardian for the Union of Dunfanaghy. The action was brought in consequence of a report which appeared in the *Londonderry Journal*, and which was supplied by the defendant, giving an account of certain proceedings that took place at a meeting of the Poor Law Board concerning the plaintiff. T report contained allegations made before the Board by the defendant himself of Mr. Murphy's incompetency, he being Medical Officer of the Dunfanaghy Dispensary District, and imputing to him improper treatment of a patient who had died while under his care, and also accusing him of having introduced to the Union a contagious fever. Damages were laid at 500*l*. The plea for the defence was a formal denial of having written or published the report, or that it was published in a defamatory sense, or was a libel. There was also a plea of privilege as a guardian that it was published without malice, and was a fair comment on the proceedings. At the conclusion of the pleadings and evidence, the judge charged. The jury then retired, and after a short absence returned into court with a verdict for the plaintiff, damages 100*l*.

The West-End Hospital for Diseases of the Nervous System has just lost the services of Dr. Broadbent, Dr. Crichton Browne, F.R.S., Mr. Brudenell Carter, Dr. Heron, Dr. Dawson Williams, Dr. Wolfenden, and Dr. Huggard. Their resignation, we understand, is owing to their disapproval of the resolutions passed a few days ago at the annual meeting. This is the third occurrence of the kind within the last two months. The only radical cure that suggests itself to our minds is, that means should be adopted amongst the leaders of the profession to discourage the establishment of small hospitals, especially in London. Of course we know that this is much easier said than done. At any rate we think that medical men will have to be careful to ascertain something about the lay members of the committee, in future, before deciding to join a hospital.

A letter which we saw in the *Times* a few days ago must clearly have been destined for the columns of Mr. Punch, unless we are much mistaken. The writer proposes that in order to dezymotize (we could hardly bring ourselves to quote such a word) drinking water, the services of electricity should be called in, and that everybody should provide himself with a battery, with which to set free nascent oxygen in his water. Putting the scientific value (!) of the proposal on one side, what excellent use Mr. Du Maurier would have made of the idea if it had been entrusted to him!

The Registrar-General's current weekly return of the health of London is better, but only slightly better, than that of last week. The general death-rate was lower by two decimal points, 25·9 compared with 26·1 per 1,000, and the zymotic death-rate was 8·3 compared with 9·9. The total number of zymotic deaths, viz., 661, was only 145 above the average, instead of exceeding it by 299, as was the case in the previous week. Diarrhœa and dysentery caused 466 deaths, 396 of which occurred in infants under one year of age. In the case of every zymotic disease, except diphtheria, the mortality was less than in the previous week, but only in the case of measles and scarlet fever was it below the average. The deaths from small-pox numbered 17, and were only six in excess of the cor-

rected average. The weekly number of cases admitted to hospital is still steadily declining, and the number of cases under treatment in hospital has fallen in three weeks from 1,368 to 1,011. The twenty deaths that



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London in each of the past ten weeks.

occurred from diphtheria were double the average, a fact which furnishes very conclusive evidence of defects in sanitation somewhere. The health of the other twenty-seven towns was not nearly so good last week as in the preceding week. The deaths from zymotic disease, viz. 603, showed an increase of 108, all of which increase is to be laid at the door of diarrhœa. Only eleven towns out of the twenty-seven had a zymotic death-rate of less than 5·0 per 1,000. Leicester distinguished itself by a zymotic rate of 16·9, or exactly half its general death-rate; while Huddersfield, at the other end of the scale, registered only one death from zymotic disease, and consequently can boast of a zymotic death-rate of only 0·6.

With a view of perpetuating the name of Samuel Gross in close association with medical tuition, the Alumni Association of Jefferson Medical College has inaugurated a movement to secure, in some medical school, the endowment of a memorial professorship to be designated the S. D. Gross Professorship of Pathological Anatomy. The movement has obtained influential support, and a numerously signed circular has been issued, in which "the profession at large, the personal friends of the late Professor Gross, and others interested in elevating the standard of medical education, are cordially invited to participate in this graceful recognition of conduct and services which have largely helped to establish the high standard of excellence to which surgery has attained throughout the United States, and served so much to dignify the repute of American medicine." We are requested to state that contributions may be sent to Dr. R. J. Dunglison, treasurer, Lock Box 1274, Philadelphia Post Office, and will be acknowledged in the columns of the *Medical News* of Philadelphia.

Dr. Billings has just transmitted to the Surgeon-General of the United States Army the last corrected proof of Vol. V. of the "Index Catalogue of Medical Books." This volume, which begins with "Flaccus" and ends with "Heart," numbers 1,055 pages, and includes 15,555 author-titles, representing 5,755 volumes and 12,596 pamphlets. It also includes 8,069 subject-titles of separate books and pamphlets, and 34,127 titles of articles in periodicals, making a total in the five volumes of 50,986 author-titles, which represent 30,722 volumes of books and 40,075 pamphlets, 49,552 subject-titles of separate books and pamphlets, and 183,864 articles in medical journals and transactions of societies, together with 4,335 portraits of medical men.

A very decided difference of opinion would appear to exist with respect to the exact identity and properties of the various bacilli which have been associated hitherto with several of the infective diseases. The experiments of Pasteur on the bacillus anthracis have been repeated by Koch and others with directly contradictory results, and Dr. Klein has now published (*Centralblatt für die Med. Wissenschaften*, No. 30) a series of observations which he has made upon the micro-organism which has been found by Friedländer and others in the sputa and tissues in acute pneumonia Following out a similar line of investigation to that taken by other observers, he infected small animals mice and rabbits, with typical pneumonic sputa. Some of these were quite unaffected thereby, others were killed within three or four days, with symptoms of septicæmia. There seemed to be two distinct forms of septicæmia, however, one of which was characterised by remarkable changes in the intestinal tract, severe diarrhœa during life and marked signs of peritonitis after death accompanying the other symptoms and *post-mortem* appearances which are indicative of profound blood-poisoning. Blood taken from these animals and injected into others produced a similar series of pathological changes. In the second form of septicæmia no diarrhœa or peritonæal effusion took place. Both lungs were hyperæmic, but no signs of croupous pneumonia could be discovered. Numerous micrococci were found in the vessels of the lungs and also in the blood of the heart. These were mostly oval in shape, somewhat pointed, and surrounded with a distinct hyaline capsule. Injections made with blood from these cases also, were found to set up corresponding changes in healthy animals. It is remarkable that in neither form of blood-poisoning was there any reproduction of the croupous pneumonia from which the infective material was derived. Whatever poison, therefore, may have been instrumental in setting up the septicæmia, it is clear that it must have been present in the pneumonic sputa independently of the poison proper to the disease itself. The hyaline capsule, which Friedländer considered to be characteristic of the pneumococcus, has

been observed by Klein and others in the micrococci found in pyæmia.

By stimulating the sympathetic, Gaskell has shown that the rate of cardiac rhythm is most markedly accelerated, the strength of auricular and ventricular contractions increased, and the ventricle can be made to beat again in sequence with the auricles when the normal sequence has been impaired. By stimulating the intracranial vagus both the rate of the rhythm and strength of the contractions is permanently diminished. The course of these sympathetic nerves in the frog corresponds in every respect to the accelerators of mammals. The action of the sympathetic upon the heart is only like its action on blood-vessels, of which the heart is but a modification. The vagus and sympathetic functions are quite independent of each other, the vagus being purely inhibitory and the sympathetic purely augmentor. Gaskell had previously shown that stimulation of the vagus nerve in the frog could produce two opposing effects—(1) Slowing or acceleration of the heart; (2) increase or decrease of the *force* of auricular or ventricular contraction; (3) heightened or lessened excitability of cardiac muscle; (4) diminished or improved conducting power of the tissue; these varied effects being evidently due to joint stimulation of nerves belonging to two different series, one inhibitory, the other augmentor; or to the stimulation of nerves now able to augment, now to inhibit the heart, either because of the condition of the muscle or the nerves. While stimulation of a vagus trunk diminishes the strength of auricular contractions and slows the rhythm, the stimulation of the sympathetic is followed by quite opposite effects. Following out these researches in the frog, Gaskell has clearly shown that the vagus nerve outside the head is really a mixed vago-sympathetic trunk, but within the cranium the two nerves are separate, and stimulation of either is followed by its own peculiar effects, while stimulation of the mixed vago-sympathetic trunk is followed by those mixed results which have hitherto been so difficult of explanation. The further instalment, of which this is only a preliminary, will be looked for with great interest, Gaskell's former researches being so full of suggestions new to cardiac physiology.

In his report on the Borough of Huddersfield for the past quarter, Dr. J. Spottiswoode Cameron, the Medical Officer of Health, is able to give a very favourable account of his district. None of the zymotic diseases have been prevalent, thus there were only two deaths from measles, and one from scarlatina. Diphtheria only accounts for two deaths, but twenty-six are attributed to whooping cough, constituting the only exception to the otherwise low mortality from the infectious diseases. Dr. Cameron lays great stress on the necessity for precautions against cholera, and urges the importance of more thorough flushing of the house drains, and more frequent emptying of the closet tubs during the warm weather.

In the competition that is arising amongst towns which depend for prosperity on their sanitary reputation, Sevenoaks is taking a high place. The average death-rate for the past eight years has been 16·8 per 1,000, but last year a death-rate of only 13·8 was obtained. Only six deaths occurred in the year from zymotic disease, of which four were due to whooping cough, and one each to diphtheria and diarrhœa. This excellent return may be safely attributed to the good sewerage and water supply provided by the Local Board. Complaints had been made from time to time that the surface ventilators of the sewers gave out unpleasant odours, but this has been obviated by the erection of air shafts, and Mr. Butterfield, the Medical Officer of Health for West Kent, finds that of the twelve districts under his care the four lowest death-rates are met with in those very localities where sewers exist and ventilators are most abundant. And yet some authorities still sigh for the cesspool.

Dr. Koeberle recently related to the Société Medicale de Strasbourg, his second case of splenotomy, performed on a woman, 46 years old, for an hypertrophied spleen, the result of intermittent fever. Both this and his first case were examples of the largest spleens that had ever been removed, the organ in both cases resting on the pubis, while there was also great enlargement of the liver. The spleen in the present case measured 40 centimetres in length, being only five centimetres less than in the other case, in which the organ, when emptied of its blood, weighed 6,800 grammes. The affection had run a rapid course of less than a year and a half, and at last there was effusion into the pleura, pericardium and peritonæum, the patient being much emaciated and cachectic, passing but a small quantity of urine and exhibiting a temperature of from 102° to 104° F. As in the former case, there was great adhesion to the diaphragm. In that case fatal hæmorrhage had taken place from the vessels of the adhesions, but in the present case this was prevented by three ligatures on the splenic vessels. As a consequence of the constriction caused by these, arterial hæmorrhage took place from a large number of cutaneous vessels along the line of incision, where complete hæmostasis had prevailed for more than hour. A great deal of blood (which was very plastic and rich in coagulable fibrin), was in this way lost; but in spite of this the patient rallied well for a while after the operation, which lasted nearly three hours; but in in about an hour after its completion she was seized with convulsions and died. This case is another example of the danger of removing large spleens; but the operation was only performed at the woman's insistance, after its danger had been completely explained to her.

At the Ordinary Meeting of the Royal College of Physicians, held on the last day of July, the greater part of the business was simply formal. Three gentlemen who have passed the examination by the Board of Censors were elected and admitted to the membership of the College; and licences were granted to 65 candidates who had been approved by the College Examiners. The censors, treasurer, registrar, assistant registrar, librarian, the Curators of the Museum, the Finance Committee, and the examiners for the ensuing year were elected; the censors being now Dr. J. W. Ogle, Dr. Wilson Fox, Dr. W. H. Stone, and Dr. J. E.

Pollock. The by-laws providing for the annual appointment of two Vice-Presidents of the College were enacted for the second time; and became effective by-laws. The Cholera Committee presented for the approval of the College a paper of instructions to be issued for the information and guidance of the public in case of an outbreak of cholera in this country,

THE BELFAST ADDRESSES.

The addresses given at the meeting of the British Medical Association this week will strike all who read them as affording ample material for reflection and future work; and cannot fail to be instructive to practitioners of medicine in every branch. It is quite clear that both Dr. Ord and Sir William MacCormac have spoken because they had something to say, and have not treated their audience to a perfunctory recital of inferior thoughts and insignificant work; nor is the president's address wanting in comments and criticisms on the medicine of the day which are not yet hackneyed enough to be pointless. Dr. Cuming began his presidential address with a reference to the generally satisfactory state of Belfast as regards sanitary matters, expressing, however, a well-timed hope that the present imperfect method of dealing with the town sewage might possibly be improved after the visit of the distinguished sanitarians connected with the Public Health Section of the Association. Going on to speak of the importance of the study of minute organisms in relation to disease, Dr. Cuming laid due stress on the equally great importance of bearing in mind that there must be an appropriate soil for the development of the morbific parasites, and stated his belief that there was a great field open here for collective investigation. In touching on the difficult question of the part played by functional disturbance in the production of disease, the speaker was on debatable ground, but, in spite of the liability to misrepresentation of a few passing remarks on such a wide subject, there can be no doubt that his warning against an entirely anatomical view of disease was not superfluous. In the exclusive sense of what is discoverable by *post-mortem* examination alone, an attempted anatomical explanation of disease must obviously be often inadequate or at fault, as destructive lesions are frequently all that can be thereby demonstrated; but it remains true nevertheless—and this, perhaps, was not fully brought out by Dr. Cuming, owing to exigencies of time—that all explanation of morbid symptoms must be based on a reference primarily to what we at least think we know of anatomy and physiology, and ultimately, indeed, of all the sciences which underlie our pathological studies. It is one thing to teach with no uncertain voice that we cannot hope to explain many well-marked nervous phenomena by *post-mortem* examination, but must rely on more indirect methods for enlightenment, and quite another to venture to formulate our belief on the statement that "the symptom sometimes causes the lesion rather than that the lesion causes the symptom." There is truth in this paradox, but to many—perhaps to most—it will be a hard saying, and open to misconstruction. All, however, will probably agree with Dr. Cuming as to the importance, in the present day especially, of remembering the value of clinical observation, not as opposed to, but in conjunction with, anatomical study; and in maintaining that the direct observation of morbid processes during life must never be warped or strained by theories exclusively based on *post-mortem* pathology.

The address on medicine, by Dr. Ord, is a worthy example of the result of such clinical observation as was insisted on by the president; and certainly goes far to emphasize the contention that we must look elsewhere for the causes of many diseases than to what we are accustomed to call structural lesions. Following out the views which have been gradually gaining ground amongst pathologists as to the great part played by what is called nervous irritation in the production of grave disorders of nutrition in various structures, Dr. Ord gives valuable support to this hypothesis by pointed quotations from his own experience. We were glad that at the close of his address the lecturer called attention to the observations of Weir Mitchell on the nutritive disorders excited by surgical injuries of nerves. For a large part of the well-known researches of Charcot and others on the question of trophic disturbances, both direct and reflex, caused by irritation of nerve-centres and nerves, are undoubtedly the offspring and development of the work of the American observers, Weir Mitchell, Morehouse, and Keen, which was based on cases occurring during the American Civil War, and published under the title of "Gun-shot wounds and other injuries of nerves." Dr. Ord put before his audience, to use his own words, "the result of observation and thought set going by the reading of the works of predecessors and contemporaries." None the less, however, is Dr. Ord to be credited with originality of observation, and the lucidity of expression evinced in this lecture renders his teaching of the greatest value. Perhaps the most important point insisted on by the lecturer was the probable dependence of rheumatic arthritis on nerve-influence. The arthropathies of *tabes dorsalis* throw much light on this subject; and, whether we regard *tabes dorsalis* as depending primarily on central or peripheral nervous disturbance, we cannot refuse to extend our views, with Dr. Ord and others, and entertain the likelihood of similar trophic disorders taking place in a reflex manner from irritation of distant parts, and conveyed along nervous paths. The series of cases detailed by Dr. Ord of that form of chronic arthritis so common in women and known under the name, among many others, of "nodosity of the joints," gives especial point to the theory which he espouses; and should further observation confirm this explanation, it must be said that Dr. Ord has made a distinct advance in clinical medicine by his carefully and richly supported hypothesis of the reflex causation of arthritis by uterine irritation. Very interesting remarks, too, were made by Dr. Ord on the probable agency of gonorrhœa and sexual excitement in the production of certain joint troubles, sometimes amounting to distinct arthritis; remarks which, besides relating closely to the main text of the lecture, may be regarded also as favouring the hypothesis of peripheral disturbance playing an important part in the causation of some of the system-diseases of the spinal cord.

The thoughtful and light-giving observations of Dr. Ord on the nervous relations of diabetes, gout, and the affection called "myxœdema," a subject which the lecturer has made especially his own, are none the less worthy of careful study than the points to which we have already called attention. It is Dr. Ord's opinion with respect to the last named disease that "the great tendency of existing observations is to class it among neurotic dystrophies." So far this opinion seems an exceedingly probable one, and for this reason, among others, we will hope that Dr. Ord may use his well-earned authority on this subject to popularise a more appropriate name than "myxœdema" for such a well marked clinical "symptom-complex" as is presented to us by this affection.

Sir William MacCormac's address in the Section of Surgery has a wider interest and application than concerns practical surgeons alone. His remarks on the radical cure of hernia by excision of the whole or part of the sac are of great practical weight, being based on a goodly series of cases. He concludes that this method should be employed in all instances of strangulated hernia, and may also be used, with little serious risk, in cases where an ordinary hernia is continuously troublesome to the patient, and cannot be kept in position by a truss. But it is the lecturer's treatment of the subject of gastrotomy and thyroidectomy that will appeal to a larger class than those to whom his remarks were addressed. Good reasons are stated for believing that the operation of gastrotomy, if performed early enough, in cases of malignant stricture of the œsophagus will undoubtedly give striking relief to the patient, and often tend to prolong life for a considerable time. It is the prevailing opinion that the field of this operation is mainly confined to non-malignant and traumatic cases; but we are inclined to believe with Sir William MacCormac that the early performance of gastrotomy will often be a useful example of palliative surgery, even in obviously cancerous cases. Under the head of thyroidectomy Sir William Mac Cormac touches on the supposed connection there is between ablation of the thyroid gland and the occurrence of the cretinoid symptoms known generally under the title of "myxœdema." The question cannot be regarded as settled as to whether these cretinoid symptoms are the result of the excision of the gland or whether both the diseased gland and the supervening symptoms are part and parcel of one underlying morbid state, and independent of the operation; but as it seems clear that it is mainly in young persons that this connection is observed, the practical conclusion is drawn by the lecturer, after a full discussion of the question, that in adults the operation may be undertaken with as much safety as any of the great operations of surgery. However this may be, the question raised by the surgical procedure under consideration has an obvious bearing on the pathology of the affection called myxœdema.

Dr. Savage's address to the Section of Psychology was a somewhat curious one. Speaking to an audience of superintendents of lunatic asylums, he was naturally obliged to say something civil, so he spoke in vague and general terms of "signs that collections of facts concerning the insane are being vigorously made." What these signs are and where they are to be discerned we know not, nor did Dr. Savage give us even a hint. Case-books, as kept in asylums, he was forced to confess are not satisfactory productions. Well, no. It is difficult to suppose that the robust and energetic mind of Dr. Savage could be satisfied with case-books "as kept in asylums." Such entries as "about the same," "going on favourably," "no change," and the like, do not attain a very high value as scientific records; and if Dr. Savage had added, as he might have added, that in the ordinary case-book "as kept in asylums" even such entries as these are made only once, twice or, at the outside, four times a year, the practice of keeping case-books could hardly be regarded by him as one of the "signs that collections of facts concerning insanity are being vigorously made." The addresses in the other sections are usually largely occupied in recapitulating or referring to the advances that have been made in knowledge and in practice during the past year. In the address to the Section of Psychology references of this kind are absent. They were absent last year. They are usually absent. Why is this? "Records" said Dr. Savage, "are rarely of any value, because they are so defective." Have we any real pathology for insanity as a whole? Emphatically Dr. Savage answered no. He might have returned an equally emphatic answer to a more restricted enquiry. Have we any real pathology for any form of insanity? for any case of insanity? Emphatically no. As the moth tends to the flame, and the pansy to the sun, so Dr. Savage to the subject of general paralysis. The longer he lives and the more cases he sees, the more convinced is he that at present we have not got the clue to the true division of this disease, nor are we much nearer solving the problem of its causation. "Asylums have not contributed the amount of knowledge which they ought" to the localisation of function. The portion of the address which was not occupied in the unhopeful attempt to infuse a little life into the British school of psychiatry was like all that Dr. Savage writes, interesting and suggestive. It was far from being a mere "fact-heap," but still the connections among the facts were doled out in driblets. The address was like the *débris* of a broken chain. There were a few facts linked together here, and a few more there, and a number of couples and solitary facts lying about indiscriminately. But there was no connecting principle running through the whole. We are convinced that Dr. Savage can produce something much better than he has yet given to the world, and we wait with impatience for some work that shall be worthy of him.

OVERPRESSURE IN SCHOOLS.

Although unanimity of opinion is apt to lessen the interest of debate, it at least implies a pretty general belief that the subject deserves discussion. At the meeting of the Conference on School Hygiene held at South Kensington on Tuesday last, both speakers and audience were practically at one as to the fact that an unnatural forcing process of some

kind—conveniently termed "overpressure"—is going on in schools; and it was admitted that this overpressure appears to obtain, or, at least, that it has hitherto been most commonly and most carefully noted, in those schools which are under the control of the Educational Department. But amongst those who took part in the discussion there was much difference of opinion as to what overpressure consisted in, as well as to what extent, and upon what class of scholars it was particularly incident. Equally striking was it to observe that, while those who most confidently alleged the existence of the evil and emphasized its dangers, comprised all the medical men (but not the medical men only) on the platform, and all of the men whose knowledge of children and of school-life was extensive — those who expressed an opposite opinion were laymen, mostly possessed of exceptionally wide experience in their own sphere of educational work; and further, that the latter, while admitting generally the existence of some degree of overpressure in certain cases, or in certain strata of the trained material, for the most part professed that such cases had not come under their personal observation. To some such, indeed, the reply was obvious; and Mr. Kegan Paul's statement that during his eight years' experience amongst Eton collegers he had found no instances of break-down from over-work, was fairly met by the reply that he had looked for it in the wrong place—that the preliminary work at the preparatory schools and of the entrance examinations was something more than a mere filtering process, and that it had given him boys who were able to endure the ordeal of education at high pressure without apparent detriment, just because it consisted in the elimination of the weaker candidates—but that it afforded no indication of the extent to which the latter had suffered in the process.

It is much to be regretted that the subject is one which, directly it rises to the surface, seems to excite antagonism between the medical and the lay authorities on the matter. As soon as a medical man begins to criticise any of the provisions of the Educational Code, or declares that harm is produced by some of its operations, it is taken up by some Educational authority as though it were an imputation on the efficiency of a really perfect system: and the question is too often argued, on one side at all events, as though it were the honour of the Educational Department, rather than the well-being of the children that is at stake. Doctors are not enemies of education, few men appreciate more fully than they the transcendent value of that deep mental culture, that power of acquiring and of dealing with acquired knowledge, that strength of self-control, that noble humility, which is implied in the full meaning of education as contrasted with mere schooling; but the best of them are, and it is well for the people that they should be, strenuously opposed to such spurious education as consists mainly in an overloading of the memory and a simultaneous weakening of the body. When Mr. Kegan Paul expresses his wish that doctors would be more precise in their charges and in instancing cases of over pressure, humanity forbids us to agree with him: firstly, because the possibility of greater precision in such a case would necessarily imply the existence—and the already long-continued existence — of a very wide-spread evil; secondly, because the value of a warning is in great measure proportionate to its timeliness. Instances of children and of adolescents breaking down under the combined effects of the overwork and worry entailed by education at high-pressure—not by any means in Board Schools only—have been at least sufficiently numerous to demand attention; but because the sufferers are necessarily individuals, and because they constitute, therefore, "isolated cases," it is too much the fashion to disregard their significance—and this even amongst people who are in other matters shrewd enough from the first few pattering rain-drops, to presage the coming storm. To be told that, in claiming fair treatment for the body under any educational system, we are "overvaluing health" is at least surprising. If health still means—as it did a thousand years ago, and, for the matter of that, as it meant yesterday—the condition of being "whole," it must surely be impossible to overvalue that ideal health which is a perfect mind in a perfect body.

In refusing to appoint a committee to investigate this question of overpressure, the London School Board has not acted wisely. The abolition of payment by results, the improvements which are being gradually, almost stealthily, made in the position of the pupil-teachers (and it was admitted on all hands that they have been great and general sufferers, that, in the words of a prominent lay member of the London School Board "the pupil-teacher system implies much overpressure which must be got rid of"), and other similar modifications, may, as is asserted, be now in process of introduction only because now, after some years spent in considering and elaborating them, it is considered possible or advisable to make such alterations. The public, however, will be apt to couple these changes with the cry which has been raised as to the existence of a wide-spread evil, and the refusal of a great educational body to enquire into the truth or otherwise of the allegation. We repeat that the question which has been raised is not as to the value of education, or the efficiency of any particular educational system, but as to the existence of an evil which, if it do exist, can only be cured by a modification of the special conditions, whatever they may be, which give rise to it. It is not unreasonable to ask for a searching enquiry into such a matter; the refusal to grant such a request may easily be made to bear a sinister significance.

Mr. Marchant Williams, while joining issue with such authorities as Mr. Pridgin Teale, Mr. Brudenell Carter, and Dr. Crichton Browne, and denying the existence of educational overpressure in the sense in which they applied the term, asserted that there was overpressure in the London Schools, but that it was "the overpressure of hunger, of poverty, and of drink." The distinction is one which we are unable to appreciate. Because, as the result of the poverty and drunken habits of their parents, these children come to the Board Schools without any breakfast, or remain there through the day without any dinner, the Board is not thereby exonerated from the charge of subjecting them to overpressure if it imposes on them the mental

tasks which even well-nourished children of the same age find sufficient difficulty in mastering. We never heard that the hardships of making bricks in Egypt was rendered less arduous by the admission that no straw had been provided. Medical men are not blind to the evils produced by drink, and they cannot fairly be accused of keeping silence on the matter. We are tempted to wonder whether Mr. Williams was serious in saying that the doctors would do far more good by preaching to the parents against drink, than by warning school authoritics against that overpressure in which the parents' drunkenness, no doubt, also has its share.

The real position of this subject, however, has been all along lost sight of. After all, overpressure in schools is not *the* question, and to treat it as though it were so is to miss the lessons derivable from a broad view of the whole situation ; it is, in fact, but one aspect—prominent indeed, perhaps menacing—of that general tendency to overpressure and over-stimulation observable in modern life. Go into the nurseries, examine the toys, attend the parties, read the books of the children of to-day, and on every hand there is evidence of a preeocious stimulation of their faculties. Left to itself the child would enjoy its mud pie or its sawdust doll ; but even its nursery "education" is carried on at high pressure, and long before it has learnt to spell the word, it has begun unconsciously to realise what *blasé* means. Some neglect or ignorance of the value of relative proportion is at the root of much popular misconception on this subject of overpressure. Simply to decline to admit the existence, or to guard against the evils of, overpressure in schools, is a course likely to be attended with disastrous results ; but that the public should be lulled into the belief that overpressure in schools is the only overpressure from which the children of this generation are suffering, and from which they need relief, would be more lamentable still.

WELDON *v.* SEMPLE.

This most important case has been tried at great length and has at last been decided. The judge left no fewer than seventeen questions to the jury, every one of which was answered by them in a sense favourable to the plaintiff, to whom they awarded damages amounting to 1,020*l*. The significance and importance of this finding can scarcely be exaggerated, especially as it has been weightily corroborated by the decision of Tuesday last against Dr. Winslow by the Master of the Rolls and his colleagues in the Court of Appeal ; and it is requisite that its bearings and consequences which are unusually wide and far-reaching, should be examined with great care and at some length. The purely personal questions involved may be dismissed in a few words. Mrs. Weldon undoubtedly suffered inconvenience, anxiety and worry from the action of the defendant ; and the compensation awarded to her cannot be considered inadequate. She has had to wait a long time for redress, but justice has in her case vindicated its character as much for sureness as for sloth ; and her grievance may be regarded as having been laid out at compound interest. For Dr. Semple we are unable to feel much sympathy. Without endorsing all the findings of the jury, we think there was yet in his conduct enough of haste ; of indifference to, or unconsciousness of, the gravity of his action ; of readiness to be satisfied with unsupported, unverified evidence ; of want of ordinary caution, such as but for his own admission would be incredible, not only to justify but to necessitate an adverse verdict. The fact too that Dr. Semple was a friend of Dr. Winslow, and had previously signed many certificates on his behalf, rendered the transaction open to suspicion as being contrary to the spirit, if not to the letter of the law.

Beyond the personal question, however, the bearings of this verdict are of the greatest moment from several points of view. It is of importance to the public at large, to the insane, and to the medical profession, especially that portion of it which is engaged in the practice of lunacy. To the public at large the trial is of great importance, but its true significance appears to have altogether escaped the attention of the journals to which we are accustomed to look for the expression of public opinion. It provides them one and all with an occasion to rail against the Lunacy Laws, and to clamour for their alteration. To us the indications appear to point in a diametrically opposite direction. Apart from the very few medical men who are proprietors of private asylums, the medical profession has no interest whatever in the maintenance of the Lunacy Laws as they are. So that our responsibility in the matter is not increased, it is to us, as medical men, a matter of perfect indifference by what steps a patient is to be consigned to an asylum. Looking at the matter then from the point of view of the citizen, whose chief concern is the possibility of being wrongfully imprisoned in an asylum, the lesson that this trial conveys to us is that the present law of lunacy offers us a thoroughly efficient safeguard against any such danger. Here is a woman who offers fairly strong *primâ facie* evidence of insanity—evidence that is no doubt open to be rebutted, but still evidence of such a nature that the patient's own witness admits that she may have been "crazy." She is visited by two physicians who, apparently, comply with the letter of the statute, and who, it is presumable, eomply with what they believe to be its spirit. They sign certificates of her insanity. The order and statements are drawn up and signed, and all the documents are in such form as to satisfy at least one judge of their validity. It is safe to say that in very few instances indeed of persons really sane are the preliminaries necessary for their incarceration likely to be so complete, in such good form, or so apparently in accordance with the law. Yet what is the result ? The patient brings an action against one of the certifying physicians and gains £1,000 damages. So far from being "detestable," "monstrous," or even insufficient, this appears to us the best possible proof that the present law of lunacy offers amply sufficient safeguards against such wrong-doing as is often read of in works of fiction, but almost never met with as an actual occurrence. It must be remembered that these points —of separate examinations, &c.—had never been tried before. The law on this subject will in future be clear without any additional statute ; and is it to be supposed that any medical man, however reckless, unprin-

cipled, or greedy of gain, will ever render himself liable to a penalty of £1,000 and the costs of such an action as that of Weldon *v.* Semple, by giving a certificate without making very certain indeed of his patient's insanity? The probability is just the opposite, and there is considerable danger now that no medical man will, under any circumstances, take the responsibility of certifying a private lunatic; and that the interests of these unfortunate people may suffer considerably in consequence.

The safety as well as the practicability of the present law appears favourably in contrast with the alternative proposals. Mr. Justice Hawkins is impressed with the importance of the certificates being made on oath. But what is the additional safeguard of an oath, as taken by a careless or unprincipled person, over that offered by a certificate? Surely none beyond that afforded by the fear of a prosecution for perjury. And what prosecution for perjury could threaten more dire consequences than that of the verdict in Weldon *v.* Semple? Another suggestion is, that no one shall be committed to an asylum save on the verdict of a jury after open trial. When it is remembered that between twelve and thirteen thousand persons are committed to lunatic asylums every year, the practicability of this arrangement becomes more than doubtful; nor would the publicity be by any means welcomed by the patients whom it is intended to benefit. To the insane themselves the present laws regulating admission to asylums are probably as beneficial as any that could be desired. In the vast majority of cases it is of the greatest importance that if a patient is to be sent to an asylum he should be sent without delay and without any exciting preliminaries. The chance of recovery is, as is well known, greater the earlier the case comes under asylum treatment; and any delay that is interposed between the positive diagnosis of insanity and the submission to asylum treatment diminishes the patient's chance of recovery. To the medical profession a change in the mode of admitting patients to asylums would be by no means ungrateful. The responsibility at present resting on certifying medical men is very heavy, and the remuneration by no means correspondingly great. The method of committal by trial would relieve them of all responsibility and probably increase the remuneration. The method of committal by affidavit would probably be more remunerative, and the responsibility certainly not greater. By no change would the profession be likely to be placed in a worse position than it is at present.

From the point of view of the medical men who practise lunacy, a change in the mode of committing patients to asylums would not be unwelcome. Whatever the change it could not but take the direction of throwing more business into the hands of the specialists, and if it compelled greater lucidity, greater detail, and more precision in the drawing of certificates, it could not fail to benefit those who have the care of lunatics in asylums. While, therefore, looking at the matter from the point of view of the medical man and the specialist, we see no reason whatever to deprecate a change in that part of the Lunacy Laws which concerns the mode of committing patients to asylum treatment, but rather are biassed in the direction of desiring a change; yet as citizens desiring every safeguard against improper incarceration, and as friends of the insane themselves, we fail to see that the principle of the present method of committal need be or should be departed from. Improvements in detail are doubtless possible, and if the verdict in Weldon *v.* Semple impresses, as it must impress, every medical man with the absolute necessity of construing the law in a liberal spirit and of taking the utmost pains to secure important evidence, and to verify it thoroughly before putting it in a certificate, the trial will have a very important and a very beneficial result in clarifying the law and improving procedure.

REVIEWS AND NOTICES OF BOOKS.

SOME OLD FRIENDS.[1]

We have before us a pile of new editions of well-known medical classics, the reissue of which we greet with satisfaction. It is pleasant to retreat for a moment before the battalions of new books which the medical publishers of France, England, Germany and America are hurling against us, with a certain contempt of consequences, and to take refuge with these old friends of ours, whose acquaintance we first cultivated as students, and whose help we have learnt to look for in the difficulties of practice. A new edition of an old and successful work, if it only keep fair pace with the times, has many advantages over an entirely new book on the same subject. It is more or less familiar to those who have studied previous editions; however much it may have suffered addition and change, the old familiar landmarks are there, and one has not to study its plan before one can find one's way about in it. Of the volumes which we are about to review, a large percentage, we should say, will be sold to men who have borrowed and read earlier editions in their student days. Then a new edition of an old book is much less likely to reflect unduly the prevailing fashion of the day. A certain deference to it may be expected of it, but not a servile or extravagant one. Again, the fact that a new edition is called for is, to some extent, a guarantee that it is wanted, that it fills a gap in medical literature—a statement which could not be predicated of more than a very small proportion of new books. On the whole then in the case of all works founded on clinical observation we are inclined as readers to favour new editions of old and tried books in preference to entirely new ones. As reviewers of course we have no right to *à priori* prefcrences. We have to judge every book

[1] 1. A Treatise on the Continued Fevers of Great Britain, by Charles Murchison, M.D., LL.D., F.R.S. Third Edition. Edited by W. Cayley, M.D., F.R.C.P. London: Longmans, Green & Co., 1884.

2. Lectures on the Diseases of Infancy and Childhood, by Charles West, M.D. Seventh Edition. London: Longmans, Green & Co., 1884.

3. A Treatise on the Theory and Practice of Medicine, by John Syer Bristowe, M.D., LL.D., F.R.S. Fifth Edition. London: Smith, Elder & Co., 1884.

4. A Treatise on Surgery, its Principles and Practice, by T. Holmes, M.A. Cantab. Fourth Edition. London: Smith, Elder & Co., 1884.

5. Injuries and Diseases of the Jaws, by Christopher Heath, F.R.C.S. Third Edition. London: J. & A. Churchill.

6. Henfrey's Elementary Course of Botany. Fourth Edition, by Maxwell Masters, M.D., F.R.S. London: Van Voorst, 1881.

on its own merits, taking care that, so far as our influence reaches, no old book shall go on living undeservedly on its old reputation and no new one be denied praise when it has fairly earned it.

These remarks apply especially to the new edition of Murchison's "Continued Fevers," which has been edited with singular discretion by Dr. Cayley. No work published within the last generation has done more to maintain the reputation of the English School of Medical writers than Murchison's "Fevers," and any new book on the subject which could expect to compete with it would have to be of extremely exceptional merit. Dr. Murchison was not a very great physician, but he had powers of careful and accurate observation, infinite industry both in the study and the ward, and a remarkably methodical mind. If he had one fault as a medical writer, it lay in his disposition to impress upon clinical facts a greater orderliness than they actually present. This is perhaps less seen in his "Fevers" than in that favourite of the examination candidate, his work on "Diseases of the Liver." Indeed the former is altogether of a much higher order of medical literature than the latter, and it is upon it that Murchison's future reputation will rest. Our comparative immunity in England during recent years from two of the continued fevers deprives much of the present work of the intense practical interest it had for the physician when it first appeared. But it would be rash to assume that neither typhus nor relapsing fever will ever again renew their ravages amongst us, or that we shall never more be driven by necessity to take down Murchison from the shelf and study what he has to say about them. The opportunities of observing these two fevers have fortunately been limited of late, and Dr. Cayley has found little to add to or to alter in Murchison's text. In the introduction under the heading of "Causes of Continued Fevers," he has expressed the opinion that the notion that contagious fevers are due to parasitic organisms must now be regarded as in all probability correct; and he accepts the researches of Pasteur and others as showing the modifiability of these organisms. As Dr. Klein however has recently shown in his Interim Report, it is a little premature to believe in the conversion of harmless into pathogenic germs, except as a pure hypothesis, and the whole question of the proximate cause of the continued fevers must be regarded as still *sub judice*. In respect to typhus, the fact of its being caused by a specific microbe, is only supported by the analogy of other contagious diseases. In the case of relapsing fever the evidence of its being dependent on a micro-organism is fairly complete, and Dr. Cayley has given a very good account and illustration of the spirochæte which is invariably found in the blood, in quantities varying concomitantly with the degree of the fever. In respect to the treatment of typhus, Dr. Cayley cannot speak with any certainty as to the effect of cold bathing in reducing the mortality, but he has found it more efficacious in relieving distressing symptoms than any other remedies.

It is to the chapters on Enteric Fever that readers of this new edition will turn with most interest. Here there are three important points which have called for special attention on the part of the new Editor, viz., first the questions of direct contagion, which has again been brought to the front, by the facts published by Dr. Collie and others; secondly, the question of micro-organisms; and thirdly, the question of anti-pyretic treatment. The first question is, we think, dismissed by Dr. Cayley in fewer words than its importance demands. The facts which Dr. Collie has added, in the *Sanitary Record* for July 15th, to those previously published, are very striking and call for serious and detailed consideration. As to the question of micro-organisms, our knowledge of which has been ably summarised for this edition by Dr. Heneage Gibbes, Dr. Cayley thinks there are strong grounds for believing the poison of enteric fever to be constituted by one of these organisms, it being "highly probable that putrefactive change is one of the conditions necessary for their development from the germs contained in the stools of cases of enteric fever." Under the head of "Treatment" the Editor deals at length with cold bathing and the administration of kairin. His praise of the former is unqualified; of the latter he speaks with more hesitation. In conclusion we may reiterate our opinion that Dr. Cayley has performed his difficult task admirably. It would have been easy to spoil the book by too much emendation and we think the new Editor has acted most wisely in confining his revision to such alterations as the progress of knowledge had rendered absolutely necessary.

Dr. West's "Lectures on the Diseases of Infancy and Childhood," of which a new edition has recently appeared, is another work which has deservedly won a world-wide reputation and has done much to maintain the credit of the English School. It would have been a thousand pities if it had been allowed to pass out of vogue because it had fallen behind our present knowledge. In his new edition Dr. West has done his best to retain the confidence of the reader. No one can read the chapters on meningitis or convulsions, without feeling that he is in the presence of one who is really a master of the subject, as Dr. West may well claim to be seeing that he can speak from an observation of 70,000 cases extending over a period of well-nigh fifty years. His description of the morbid anatomy of infantile paralysis shows that he has thoroughly followed the revolution that has taken place in our knowledge in this direction in the last few years, whilst his advocacy of the use of the hypodermic syringe in a doubtful case of pleurisy, and his regulations for the treatment of empyema are sufficient evidence that in matters of diagnosis and treatment he is as well posted up as if he had but just been up for his degree. Dr. West's views on the identity of croup and diphtheria are we hope and believe perfectly well known to all our readers, and they will be found here couched in that elegant diction of which he is one of the very few living masters. His rules too for establishing the points of difference between diphtheria and scarlatina are admirably conceived. Dr. West has shown caution in his attitude towards some of the latest views, but he has introduced sufficient emendations in the text of his "Lectures" to make them still far and away the best book that we have on the subject. The references to recent works scattered throughout the volume, and the numerous allusions to the work done in the children's section of the International Medical Congress in 1881, over which he presided with such marked success, show that the author has not relaxed his study of contemporary literature. In regard to the new problems suggested by the discoveries of bacteriologists, Dr. West takes up a more philosophic position than Dr. Cayley has done in the work we have just reviewed. He admits, with most reasoning physicians, that the new discoveries "do not furnish data such as can govern the course of the ordinary enquirer in the study of disease or as can control his practice." He does not, nor do we, underestimate their value, or the work of those who are striving to give them greater scientific certainty, but in this matter "they also serve who only stand and wait."

Dr. Bristowe's "Treatise on the Theory and Practice of Medicine" first appeared so recently, and the alterations that it has been found requisite to make in the new edition are so slight that it may be dismissed in a few words. As in the case of the two previous works some important additions have been necessitated by

recent advances in bacterial pathology. This study, however, is progressing with such rapid strides, that in some respects even this last edition of Bristowe is already out of date. Thus in describing the attenuation of the bacilli of Splenic Fever (p. 141), Dr. Bristowe gives Pasteur's results, without having been able to modify them in accordance with those more recently obtained by Koch, Gaffky and Loeffler, a summary of which was published in our last issue. Again, the pages dealing with the cause of cholera were probably through the press before Dr. Koch had made known his discovery of the "comma" bacillus, as they contain no mention of it. It is interesting, however, to observe how closely the views arrived at *à priori* by the author (p. 237) have been realised in the behaviour of the bacillus as described by Dr. Koch. Under "tubercle," Dr. Bristowe quotes the early experiments of Dr. Wilson Fox without having been able to notice the newer researches which have shown the first results to have been unreliable. Dr. Bristowe believes that the evidence in favour of the view that the bacilli discovered in tubercle are its cause, is very strong, but even accepting it he does not think that it necessarily follows that tubercle is infectious any more than that ague is infectious. Several other alterations have been made in the new edition which we have not space to enumerate. It suffices to say Dr. Bristowe has done everything in his power to maintain the reputation of his book, as being one of the best, if not the best, complete treatise on medicine in the English language that can be placed in the hands of the reader, be he student or practitioner.

We must pass very briefly over the remaining books on our list. Mr. Holmes' "Treatise on Surgery," and Dr. Bristowe's "Treatise on Medicine" were first issued within a few months of each other by the same publishers. Both have taken a recognised place in their respective branches, both have fully deserved the success they have won, and the authors of both have conscientiously striven to bring their new editions up to date. Very few changes have been made in the present edition of Mr. Holmes' work; but on referring to the subjects in which most distinct progress has been made since the publication of the last edition, we find that the points which have been omitted are few and unimportant. Mr. Holmes is quite justified in claiming that his work is a faithful reflection of the advance of surgery.

In recording the issue of a new edition of Mr. Heath's standard work on "Injuries and Diseases of the Jaws," it is sufficient to say that the author has made very considerable additions and alterations, rendered necessary by pathological advance and by increase in his own experience. The volume thus embodies all that is known on the complex and difficult subjects of which it treats. The additional woodcuts are admirable.

A few lines will be sufficient to record the publication of a new edition of "Henfrey's Botany," edited by Dr. Masters. The general plan of the work has not been altered, but much new matter has been added in the chapters on the Histology and Physiology of Plants. We come again on our old friends the bacteria; indeed the fact that in five out of the chance company of books we have here reviewed important alterations have been necessitated by discoveries in the field of bacterial pathology, makes one freshly realise in how many scientific pies the omnipresent bacterium has a finger.

The Library of the Royal Medical and Chirurgical Society will be closed on Monday, August 11th, and re-opened on Monday, September 15th.

ABSTRACTS AND EXTRACTS.

WELDON *v.* SEMPLE.—THE PRESS ON THE VERDICT.

The *Times* says that it admits of little doubt that a verdict adverse to the defendant was perfectly justifiable, that the jury might well come to the conclusion that there had been a lamentable lack of care, and that it would be scandalous if each case of suspected lunacy were sifted with no more intelligence than was displayed with regard to Mrs. Weldon. Unsatisfactory though the present law was, and calculated, as the judge said, to fill everybody who contemplated it with terror and alarm, it did not seem in this instance to have been genuinely observed, and it was a serious flaw in the defendant's case that the selection of the certifying doctors was entrusted to the proprietor of the asylum to which the plaintiff was to be consigned.

The *Standard* thinks that there is ground for great satisfaction in the verdict of the jury, and that the overwhelming majority of the public will be of opinion that if to have been treated with excessive and unjustifiable harshness can entitle Mrs. Weldon to damages, the finding is amply warranted. In future, members of the medical profession will be more careful to act independently of one another, and of the proprietor of the asylum, whose interests are concerned.

The *Daily News* points out that it is a matter of congratulation for the public to be assured that the treatment which Mrs. Weldon received is unauthorised, even by the very elastic regulations of the Lunacy Acts, and concurs with the finding of the jury that Dr. Semple did not *bonâ fide* and honestly, separate from Dr. Rudderforth, personally examine the plaintiff. With a little more caution, however, Dr. Semple might easily have kept within the statute, and though Mrs. Weldon has been triumphant, her triumph does not justify the law.

The *Morning Post* is of opinion that the language from the judicial bench on the state of the Lunacy Laws was strong, but certainly not stronger than is deserved. It is not necessary to assume that the law is habitually or frequently abused to pronounce its condemnation; but it is sufficient, as Mr. Justice Hawkins put it, "that the law opens a door of easy access to abuse, and persons who were wicked-minded would find it easy of abuse, and in that way a great deal of mischief might be done." When the next Lunacy Act is passed, it should provide for the examination of an alleged lunatic before a Justice of the Peace, and all private lunatic asylums should be suppressed. There should be no motive operating in the minds of those who have charge of asylums to detain their patients a single day longer than is absolutely necessary for their protection.

The *Guardian* considers the verdict a natural protest of common justice and common sense against the existing state of the Lunacy Laws. The jury held that Dr. Semple had not kept within the limits of this bad law; but he might have kept well within them and still inflicted unjust suffering on Mrs. Weldon. There will be no proper security for personal liberty until the order for detention as a lunatic shall in all cases be signed by official persons, or the detention itself shall in all cases be in a public asylum.

Truth contends that the verdict of the jury is confirmed by public opinion. The examination in Mrs. Weldon's case was only colourable. Mr. Justice Hawkins is to be congratulated for having so directed the enquiry as to show that if the Lunacy Laws are to remain as they are, the liberty of no man or woman in the United Kingdom is safe.

COLOUR BLINDNESS.

After discussing the various theories of colour perception, as propounded by Newton, by Young, and by Hering, and pointing out how they all fail to afford a satisfactory explanation of the phenomena of congenital colour blindness, whether partial or complete, Dr. Swan Burnett (*American Journal of Medical Sciences* for July) proceeds to detail his own views which have on a previous occasion been brought forward in a less complete form. He starts with the proposition that an

abnormality in the retina, optic nerve, or centre of vision in the brain would cause some alteration in the normal sensation. He supposes that the reason that the possibility of the defect being in the brain in cases of colour blindness has not received more consideration is perhaps the use of this word blindness, which is clearly a misnomer. The patients thus affected are not really blind; a red-blind man sees the colour, but is not able to separate the impression made by it from that made by some other colour. The mistakes of the colour blind are errors in judgment. Abnormal colour perception may be of two kinds, central and peripheral; in the first of these the difficulty lies in the brain. To this class would belong all congenital cases in which the spectrum is not shortened, and even some in which it is. The other variety would include cases where the defect was the result of inflammatory changes in the optic nerve or retina, and perhaps some of the cases in which the spectrum appears shortened. As there are no physical, anatomical, or physiological grounds for regarding the retina as a differentiating organ, he proposes to give up that notion altogether, and consider it "to be a substance whose ultimate structure is such as to allow it to respond at one and the same time to a large number of ethereal vibrations, at least such a number as shall be represented by the clearly-distinguishable colours of the spectrum." The impressions thus received by the retina are transmitted by the optic nerve to the brain, and there converted into sensations. The term colour blindness he would restrict to those cases where everything appears black, or white, or a dull shade of grey; all other forms he would prefer to call cases of abnormal colour perception. In the central cases, that is, where the defect is due to error of judgment, the retina may be in an absolutely perfect condition. Most of those who are the subject of this condition see the spectrum dichromic, the dividing line being about the blue. In such a case the person cannot differentiate between the vibrations corresponding to those colours which lie on either side of the line, it does not follow that the vibrations are the same, but they are so nearly alike that he is likely to confuse them. When there is shortening, it may be that the vibrations corresponding to the missing part of the spectrum fail to excite the cerebral molecules. The peripheral forms would depend upon the optic nerve being unable to transmit, or the retina to receive, these particular impressions. In the normal eye they seem to be unaffected by the ultra-red or ultra-violet rays, and it seems therefore perfectly justifiable to assume that under certain conditions they might be unable to pass on to the brain other colour waves. Embryology confirms this view by showing that it is probable that the optic nerve is a highly specialised nerve of common sensation, and the retina a modification of the integument in which the nerve terminates. As to the part of the retina which is specially concerned in the transmission of these impressions, Dr. Burnett is of opinion that as far as his theory is concerned it is a matter of indifference which layer receives them. The rods and cones alone are not the only parts affected, as was proved by the fact that in a tiger which had good visual power this layer was completely absent. Nor is the pigmentary layer essential, otherwise albinos would all be colour blind. In order to determine the relative power of the different waves to affect the retina, Dr. Burnett adopted the following plan. A piece of white paper was placed with a black ground in the sunlight, and the retina was exposed to it for a certain length of time; the eye was then covered up so that all light was excluded, and he then studied the changes that took place in the after-image. As a result of these experiments he inferred that the shorter waves (blue) affected the retina most easily and most strongly at first, but that they were sooner exhausted than others which did not act quite so speedily at first. The order of disappearance followed the colours of the spectrum from the blue to the red end. He could not, however, feel certain that these results related solely to the retina, as the brain might have had some effect. Lastly, he asks whether a certain portion of the brain presides over the function of the colour sense, or whether one centre serves for light, form, and colour vision. The sense of form would depend upon the number of retinal elements affected, and their relation to each other in space. Colour would be the result of a discrimination between the changes produced by other waves of different lengths, while the sense of light (white) would be the sum of all these wave impressions occurring at the same time. If one cerebral atom corresponds to each retinal element, then the cerebral mass concerned in the reception and perception of impressions made on the retina need not be greater than that of the retina itself. It would not be necessary that in this mass different portions should be set apart for the perception of the different colours, for the variations in the vibrations in the retina, or in the luminous body itself, would be able to take place just as well in the cerebral mass. Cases of hemiachromatopsia of cerebral origin he would account for by the supposition that the cerebral molecules of one side were rendered incapable of responding to the missing colours, or the lesion might be in the optic tract, preventing the fibres from carrying the wave motion representing that colour from the retinæ to the brain. We have to thank Dr. Burnett for a most able, interesting, and thoughtful article, dealing in a masterly manner with a great problem. His division of cases into central and peripheral, and placing the congenital cases in the former group will, we believe, prove to be the correct solution.

REPORTS OF SOCIETIES.

ACADEMY OF MEDICINE IN IRELAND.

Sub-section of Public Health.

Dr. Grimshaw, President, in the Chair.

Increase of Insanity.—Suggested Reform of the Lunacy Laws and Practice.

Dr. T. More Madden having recently read a paper, in another Section of the Academy, on certain mental and nervous disorders, now called attention to other aspects of the subject, offering further evidence of the general prevalence and increase of insanity in all classes, and more especially amongst women, in whom it was frequently traceable to cerebro-nervous disorders originating in reflex irritation from utero-ovarian causes. These disorders, however, were very frequently unrecognised and neglected in lunatic asylums, the result being, that many women were needlessly confined or improperly detained in such institutions. The present administration of lunatic asylums and the laws by which it is directed, afford scope for the possible occurrence of abuses. He made suggestions for the improvement of the administration, and some needed reforms in the lunacy laws. Although the recent increase of insanity had been disputed as a popular fallacy, even by psychological authorities, including the Lunacy Commissioners, the statistical evidence of the fact was incontrovertible. At present, one in every 414 of the population of England and Wales is a registered lunatic; while in 1800, there was only one lunatic in 7,300 of the population. In 1806, there were 2,248 lunatics in England and Wales; in 1819, 6,000; in 1823, 8,000; and in 1826, 14,000. In 1845, there was one in 800 of the population insane, and thirty-seven years later, one in 414, or 76,765 lunatics, comprising 42,482 females, being an increase on the preceding year of 1,182 females and 676 males. In Ireland, since 1851, the population decreased 12 per cent., and there has been an increase of 41 per cent. in the number of lunatics. In 1851 the number was 9,980, or one in every 1,291; but last year it had risen to 13,820, or one in 369. The increase of lunacy had been greater amongst women than men, owing to the influence of uterine or peri-uterine causes of reflex cerebro-nervous irritation. There were also general moral and social causes. The facility with which any person can be legally confined as a lunatic is indefensible, seeing that any two of the most inexperienced of the 24,000 practitioners on the medical register can virtually consign any man or woman to a lunatic asylum. That this power was liable to abuse he illustrated by cases in his own experience.

He therefore suggested that the power of signing certificates should be restricted to certain officially appointed medical inspectors of lunatics; and that in the case of alleged female lunatics, one of the inspectors should be a physician with some experience of the special functional disorders, the reflex consequences of which may either simulate or eventuate in insanity. The lunacy laws differ in England, Scotland, and Ireland; and the pauper lunatic asylums in England and Wales involve an expenditure of upwards of a million, while those in Ireland cost 200,000*l*., according to last year's accounts. The reform of abuses and the improvement of curative treatment could be attained with diminished cost to the public. Let all the lunatic asylums become public property, and placed under one central official administration in each country. The compensation of proprietors of private asylums would not be a serious consideration, considering the profits that would arise from continuing those institutions as first and second-class State asylums, and ultimately these profits would relieve the cost of the general public lunacy system. He suggested the abolition of the office of resident medical superintendent of public asylums, whose functions he would transfer to lay governors or masters, leaving the resident physician free to devote himself entirely to strictly professional functions, in which he should be assisted by a staff of extern or visiting medical officers. A large number of the chronic and harmless patients of the weak-minded or imbecile class would be cared for with greater comfort to themselves and less cost to the public, outside the walls of lunatic asylums. As an amendment of the laws relating to so-called criminal lunacy, he suggested the adoption of a law similar to the 64th Article of the French Penal Code, and the appointment of medical assessors in all trials in which the plea of insanity is advanced.

Dr. Doyle hoped the gentlemen connected with private lunatic asylums would state their views. Human nature was weak, and those who had private asylums could not be blamed for trying to keep good-paying patients as long as possible. He knew of a case pronounced by the keeper of a private aristocratic institution as incurable; but the patient being unable to pay, was placed in a public institution, and in six weeks' time was discharged. Within the past year, four or five cases of lunacy came under his care, in three of which he detected uterine disorder, but he could not lay too much stress on it as the exciting cause. Females got into a nervous state frequently; but in the majority of cases where their lunacy was not due to hereditary predisposition, it was traceable to some local cause, the same as in *delirium tremens*. From what he knew of them, he hoped private asylums would be abolished.

Dr. Neville took considerable interest in lunacy since his first professional appointment as *locum tenens* in one of the large county asylums. The effect the diseases of the female genital organs might have in the causation of mental trouble was apt to be exaggerated by gynæcological specialists, and the question of lunacy was somewhat looked at through gynæcological spectacles. Where it was a case of one specialist attacking another, he discounted a good deal of the criticism. He knew some of the gentlemen who gave attention to diseases of the mind to have studied these diseases as earnestly as specialists did in any other branch of medicine or surgery. The great trouble taken, both in public and female asylums, could not be excelled by any specialist. As to the increase in lunacy, shown by the figures quoted, it should be remembered that the causes of lunacy had greatly increased, *e.g.*, the wear and tear of modern life. On the other hand, the struggle for existence made it the more necessary to get rid of the drones of society, and certainly lunatics, being of no use to themselves or their families, were drones in society, and their families would be anxious to put them under restraint. Nowadays medical education had advanced, and with it the diagnosis of insanity. Specialists in diseases of the mind would say there had been just as much improvement in the treatment of insanity as in obstetrics. Indeed, he saw a complaint made in connection with the meeting of the British Medical Association in Belfast, that there had been no advance made in obstetrics for several years. But he did not admit the truth of either allegation. On the contrary, he believed there had been an advance. The use of opium in melancholia had a remarkably beneficial result. Dr. More Madden had adduced the statistics of Bethlem 100 years ago, and, contrasted with those of the present, the cures were then two out of three, while now the proportion was much more unfavourable. But he did not believe in the statistics of 100 years ago, or in the treatment either. Could any sane man believe that the exhibition of the patients to the public, at 2*d*. or 3*d*. each, was better treatment than that resorted to at the present day? In the majority of cases where disease of the female genital organs gave rise to insanity, there had been hereditary tendency to insanity, and that would come out just as if she had disease of the liver or the lung. Disease of the genitals was, no doubt, an exciting cause, but it required the back-ground of an hereditary predisposing cause. He did not agree with Dr. More Madden and Dr. Doyle about doing away with private asylums, believing as he did that in those establishments the insane were as safe and as well cared for as they would be if confided to a corporation or the government. Nor did he agree with Dr. More Madden's idea in reference to the Medical Superintendents of County Lunatic Asylums. As the head of the institution, the Superintendent was properly a medical man, having a medical assistant and a crowd of officials under him to carry out the details. He was well paid for his work and gave his whole time to it, and if in the task of supervision he missed the discharge of some of his medical functions, it was not greatly to be regretted. As a rule, consulting physicians who resided outside the institution knew nothing whatever about lunacy, being general practitioners without any special knowledge. In his own experience a ridiculous illustration of this occurred where the consulting physician in three different cases—one of asthma, one of acute mania, and the third of injury to the knee-joint—ordered a blue pill and a black draught for each.

Dr. Henry Kennedy had not the same experience as Dr. More Madden of the enormous increase of lunacy. Registration had the effect of bringing out cases which 25 or 50 years ago would not have been noticed at all. He did not see why private asylums should not be continued. That abuses might exist would be allowed, but there were competent inspectors to visit private asylums and investigate their management. As to treatment, cod-liver oil had become almost a specific where there was a tendency to insanity indicated by such symptoms as restlessness and refusal of food on the part of persons advanced in life. In all those cases death almost invariably ensued from tubercular phthisis. Dr. More Madden was in some respects right regarding the stress he laid on uterine irritation.

The Chairman did not think the statistics justified the extreme conclusion drawn with regard to the increase of lunacy. The statistics of 100 years ago were not of much weight. Independently of that fact, it was only recently lunatics had been brought in considerable numbers into a position in which they could be tabulated. The great asylums did not exist, though the lunatics may have existed. In Ireland the statistics improved with the development of the system of collecting the information, so that each decennial census was superior to the preceding. In 1851 the difficulties to be overcome were so great that an enormous number of errors were committed. Since then the population had been prevented from increasing chiefly by emigration; and the lunatics did not emigrate, neither did the old nor the very young. Consequently considerable allowance must be made for these in the calculation. He thought Dr. More Madden had taken too severe a view of the mode of conducting asylums. The functions of the superintendent were various. But the director of any great establishment for the treatment of disease should be a medical man, even if he had to abdicate his medical functions. No doubt the function of hotel-keeping performed by the owners of private lunatic asylums was derogatory to the profession, but all the same, he was strongly in favour of private asylums. A lunatic able to pay for his support should not be treated at the public expense. There were wealthy lunatics, and their being unfortunate enough to be mad was no reason why they should be deprived of the advantages of people of wealth. It was only in private asylums they could have those advantages.

MEDICAL NEWS.

Royal College of Physicians of London. — The following gentlemen having passed the required examination were admitted as Members, July 31st, 1884 : —

George Newton Pitt. M.D. Camb., 9, St. Thomas Street, S.E.; Richard Sisley, M.B. Lond., 1, Park Row, S.W.; Edward George Younger, M.D. Brussels, Hanwell.

Royal College of Surgeons of England. — The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th ult., viz :—

Julius Coronel, M.D. Amsterdam, W. Indies; C. E. Gooding, M.D. McGill, Barbadoes, W.I.; J. B. Loring, M.D. McGill, Montreal; G. B. Rowell, M.D. McGill, San Francisco; H. C. C. Shaw, L.R.C.P. Lond., Kingston-on-Thames; S. E. Craddock, L.S.A., Milman Street, W.C.; Francis Penny, L.S.A., Crewkerne; George Morgan, L.S.A., Brewer Street; J. R. Watson, L.S.A., Moore Street, S. W.; Hyde Marriott, L.S.A., Stockport; A. W. Aikins, M.D. Toronto; G. C. Macdonald, L.R.C.P. Edin., Craven Street; T. H. Miller, L.R.C.P. Lond., Clapham; R. F. T. Perkin, Warwick; W. T. Rees, L.S.A. Llanboidy, Carmarthenshire; T. G. Parrott, L.R.C.P. Lond., Aylesbury; J. U. Bolton, L.R.C.P. Edin., Wimbledon; C. W. Biden, L.R.C.P. Loud, Peckham; and C. R. Riley, L.R.C.P. Lond.

Five gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College. Four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, and one for three months.

The following gentlemen passed on the 25th ult., viz.':—

A. M. Watkins, L.R.C.P. Lond., Newton-le-Willows; E. Webster Hulme, Manchester; E. O'R. Somers, Salford; J. Stevenson, L.R.C.P. Lond., Stretford, Manchester; P. W. Williams, Bristol; C. E. Purslow, Wolverhampton; E. P. P. Macloghlin, Wigan; G. S. Wild, Liverpool; T. G. Laslett, L.R.C.P. Lond., Bootle; William Spry, Southsea; L. Drage, Hatfield; C. B. Innes, Hampstead; W. C. G. Collins, L.R.C.P. Edin., Holford Square; A. J. G. Barker, Finsbury Park; and Alexander Harper, Hertford Street, W.

Five gentlemen passed in Surgery. Six candidates were referred for six months, and one for three months.

The following gentlemen passed on the 28th ult., viz. :—

P. L. de Montbrun, L.R.C.P. Lond., Trinidad; J. H. E. Brock, Bartholomew Road, N.W.; A. F. Voelcker, Argyle Road, W.; J. R. Adie, Brixton; P. D. Turner, Tulse Hill; F. S. Barber, Claremont Square; J. E. Ruck, Devizes; W. H. W. Stacey, Norwich; A. S. G. C. Reid, Chatham; W. A. Aikin, Clifton Place, W.; R. W. Brogden, L.R.C.P. Lond., Clapham Road; R. H. Castor, L.R.C.P. Lond., Primrose Hill; and J. R. Roberts, L.R.C.P. Lond., Suez, Egypt.

Seven gentlemen passed in Surgery. Five candidates were referred for six months, and two for three months.

The following gentlemen passed on the 29th ult., viz. :—

J. J. D. Vernon, Newcastle-under-Lyne; A. H. Tubby, Kennington; A. E. Taylor, Acton; T. G. Lavie, Queen Anne's Gate, S.W.; E. A. C. Smith, L.R.C.P., Lond., Woolwich; John Elliott, Whitchurch, Salop; W. M. Gabriel, Gloucester Gardens, W.; S. H. Habershon, Brook Street, W.; T. G. Penrose, Gower Street, W.C.; W. T. Cocking, Sheffield; John James, Llangwyryfon; A. R. Hall, Stranraer Place, W.; A. H. Fowler, L.R.C.P., Lond., Sharsted Street, S.E.; O. W. Roberts, L.R.C.P., Edin., Cambridge Gardens, W.; A. T. Field, L.S.A., Shepherd's Bush, and T. W. S. Morgan, L.S.A., Roupell Park, S.W.

Three gentlemen were approved in Surgery. Three candidates were referred for as many months, four for six months, one for nine months, and one for twelve months.

The following gentlemen passed on the 30th ult., viz. :—

F. A. Spreat, Belsize Square, N.W.; A. G. R. Foulerton, Norland Square; Sydney J. Palmer, Seaton, Devon; Charles Gayford, Brecknock Road; C. D. Muspratt, Clapham, S. W.; R. M. H. Randel, Sydenham; T. E. Hornbuy, Mile End; P. V. Jackson, Ballina, co. Mayo; William Washbourn, Blackfriars, Gloucester; Charles Andrews, Hammersmith Road; and Frank Pearse, L.R.C.P. Edin., Exeter.

One candidate passed the examination in Surgery. Four candidates were referred for three months, eight for six months, and one for nine months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 24th, 1884 :—

Adolphus Theodore Field, Sunnyside, Shepherd's Bush, W.; William Hall, 30, Cumberland Park, W.; James King Lewis, 101, Old Woolwich Road, Greenwich; George Frederick Pollard, 103, Earl's Court Road, Kensington, W.; Richard Greenhill Silverlock, Northwold, Norfolk; Ernest Vallance, The Deanery, Stratford, E.; Francis James Warwick, 40, Vaughan Road, Loughborough, S.E.

University of Edinburgh. — The following are the candidates who have passed the second professional and final examinations. Those marked thus * have passed with distinction :—

A. M. Adams, M. S. P. Aganoor, N. E. Aldridge, J. H. L. Allott, M. Altounian, S. Arnold, E. H. Banister, J. Barrie, G. B. Batten, J. B. Bawden, T. W. Bell, D. Berry, *A. Bissett, J. A. Blair, F. M. Blumer, B.A.; T. Bonar, F. F. Bond, J. E. Bottomley, *P. Bowes, H. Bramwell, H. R. Bramwell, R. A. Brewis, *D. M. Brown, *R. M'D. Brown, T. A. Brown, S. B. Burns, J. M. Cadell, E. K. Campbell, *E. Carmichael, W. R. Carter, L. M. F. Christian, T. G. Churcher, R. L. Clark, D. Cloete, J. G. Cossins, R. S. Coulthard, A. H. Croucher, W. L. Cullen, A. S. Cumming, T. B. Darling, H. H. Davies, T. L. K. Davies, J. D. Davies, T. W. Dewar, *D. G. Donaldson, D. R. Dow, M.A.; T. Easton, M.A.; E. Eckersley, T. Edwards, H. S. Fairbank, J. E. A. Ferguson, J. H. Ferguson, T. Ferrier, G. Fisher, W. S. Flett, A. Fraser, T. Fraser, M.A.; T. A. W. Fulton, C. H. Gage-Brown, W. G. Galletly, D. J. Galloway, D. F. Gardiner, L. R. Gray, F. G. Greenbury, E. Greenough, B. Griffiths, C. D. G. Hailes, *W. W. Hall, J. R. Henderson, T. M. Hodgson, W. A. Holmes, T. A. F. Hood, *R. Howden, R. S. Hubbersty, Dirk de Vos Hugo, J. Hume, B. E. Iastrzebski, J. O. Jones, G. H. Kenyon, M. A Ker, D. O. Kerr, J. Kerr, W. V. M. Koch, D. Laing, W. Laing, C. A. Lane, *W. S. Lang, A. E. G. Langschmidt, C. N. Lee, A. W. M. Leicester, L. H. Le Merle, C. L. Lempriere, W. G. Little, M.A.; G. S. P. Loubser, W. W. R. Love, C. J. Macalister, B. F. P. M'Donald, A. G. Macdonald, W. C. M'Ewan, M.A.; J. M'Gibbon, A. Mac Gregor, D. MacGregor, M.A.; H. J. Mackay, W. B. Mackay, J. C. Mackenzie, *J. H. Mackenzie, M.A.; M. MacLaren, B.A.; A. Maclennan, J. M'Leod, B.A.; J. M'Myn, A. Macqueen, G. D. Malan, L. G. Mallam, A. Matheson, A. Menzies, W. J. van der Merwe, G. Michael, R. Mitchell, M.A.; D. Morgan, A. E. Morison, D. Mowat, W. J. Munro, B.A.; F. Murray, B.A.; B. H. Nicholson, J. Noble, F. B. O'Flaherty, *A. G. Paterson, M.A.; C. E. Paterson, *F. A. Pockley, J. M. S. Preston, E. F. T. Price, W. T. Prout, A. C. Purchas, T. R. Rait, *F. M. Reynolds, T. Rhodes, W. Richards, J. Rigg, A. L. F. Robertson, J. Robertson, J. C. Robertson, R. M. Robertson, A. J. T. Roux, J. Rutter, Y. S. Sanitwongse, T. S. Shaw. *F. H. Simmons, G. R. Smuts, W. Sneddon, J. S. Stephen, H. F. D. Stephens, S. H. A. Stephenson, *J. Stevens, M.A.; C. H. Stewart, B.Sc.; J. W. Stirling, J. Stuart, G. H. H. Symonds, J. C. Taylor, G. Thomson, R. S. Thornton, C. G. Thorp, J. Tod, Cecil G. Traill, George A. Tullis, J. W. O. Underhill, E. Walker, N. H. Walker, N. P. Walker, D. Wallace, T. A. Watson, S. F. Wernich, A. Westlake, R. H. A. Whitelocke, W. J. Will, *C. Wilson, A. B. Winder, J. E. Wolfhagen, J. C. Young, B.Sc.

The following is a list of candidates who have passed the second professional examination :—

W. A. Anderson, J. S. Archibald, J. W. Astles, A. G. Baschet, S. Beattie, C. N. Bensley, J. W. Black, R. Bone, W. F. Boycott, J. Brown, W. J. Cameron, C. Charleton, S. F. Clark, J. Cram, A. E. Curtis, D. N. P. Datta, J. W. Dawes, H. G. Dickman, A. Fisher, R. S. H. Freeborn, J. W. Gainer, J. Garvie, T. H. Gibson, A. E. Grant, J. W. Grant, A. E. L. Gray, D. M. Greig, A. C. Guthrie, S. P. Hallows, J. T. Harvey, F. W. Hennessy, J. R. Hill, J. J. Hoffman, R. E. Horsley, R. Howden, W. H. M. Ingham, H. Jamieson, J. P. Johnston, E. C. Kingdon, J. H. A. Laing, D. J. Lawson, E. L. Lees, *R. F. C. Leith, Æ. D. M. Macintyre, A. C. Mackenzie, C. J. R. M'Lean, R. H. Maclean, R. MacLelland, P. B. M'Nicol, C. C. Manifold, C. G. Matthew, *H. B. Melville, W. F. Menzies, D. M. Moir, *E. J. B. du Moulin, J. K. Murray, W. R. Nasmyth, W. B. Nisbet, E. S. Nutting, J. W. Pare, M. Paterson, T. J. Paton, J. H. Pringle, J. T. Richards, G. B. Ritchie, E. T. Roberts, F. C. Roberts, R. Robinson, A. M. Ross, J. R. H. Ross, D. W. Scotland, W. E. S. Scott, H. Scurfield, G. P. Smith, *J. W. Smith, R. Stewart, W. J. Thomas, F. C. Thorp, J. W. Travell, H. Ware, *C. H. Waters, A. B. Whitton, R. A. Wilson.

University of Glasgow.—The following candidates have passed the final professional examinations for M.B. and C.M. :—

Alexander G. Auld, Harry Bamber, John Beveridge, William T. Blakely, William Brown (Wigtown), William Brown (Kilmarnock), William M. Brown, John Innes Brownlee, George Clark, James Cowie, James Crawford, William Cullen, J. B. Cumming, John Cunningham, Henry E. N. Dobie, Robert Eaglesham, James D. Farquharson, James Findlay, David Finlay, Alexander Frew, Andrew B. Fulton, William Lewis Gray, Michael H. Greener, Henry Mason, Ernest Mackenzie, C. O. Hawthorne, James Hinshelwood, M.A., Alexander Jack, Hugh Kelly, Francis E. Kendall, Arthur G. Keogh, John A. Kerr, Matthew Killoch, Alexander M. Kinghorn, Alexander Kirkpatrick, Robert Livingstone, Hugh Logan, Duncan Marquis, W. Gray Marshall, M.A., Robert G. Miller, David Moffat, Archibald N. Montgomery, Andrew Murdoch, James William A. Murdoch, Benjamin W. MacArthur, Duncan Macartney, M.A., and William M'Creadie.

Royal College of Surgeons in Ireland.—At a meeting of the Court of Examiners, held on the 14th of July and following days, the undernamed gentlemen, having passed their final examinations for the Letters Testimonial, and taken the declaration and signed the roll, were admitted Licentiates of the College, viz. :—

Arthur J. Barlow, Henry T. Baylor, George Brown, William G. Connor, John J. A. Costello, Samuel A. Crotty, Robert Cross, George Davidson, Henry G. G. Day, Ulysses C. H. De Burgh, William Dillon, Joseph E. Dormer, Andrew A. Doyle, Alexander

T. Drake, Fitzwilliam Evans, Charles J. Falkner, Martin Fennelly, Richard H. J. Fetherston, Robert Gloster, William E. Grandy, John Hobbs, Samuel Hornock, William G. F. Johnston, Cornelius J. Kelly, Patrick J. Kiernan, Alexander D. La Touche, Edmund D. La Touche, Richard R. Leeper, Kenneth Mackay. Michael J. Magan, Barcroft Manly, Robert F. M'Ardle, Arthur R. F. M'Cutcheon, John J. M'Donnell, John M'Fadden, Arthur M'Gauran, John M'Grane, Henry V. M'Loughlin, William M'Manus, Hugh Morrison, Timothy A. Mulcahy, Ed. G. Newell, John J. Norton, James Oakly, Alfred Ross, James L. Rowlette, Francis H. Sinclair, Alfred J. Smith, James H. Stewart, Augustus J. O. W. Tabuteau, Hamilton J. Thornbury, Launcelot A. Whitcroft.

Twenty were stopped. At the examination held on the 30th June and following days for the first half of the Letters Testimonial, 74 candidates presented themselves, 48 of whom were stopped.

Victoria University, Manchester.—The following have satisfied the Examiners in the intermediate examination for the degree of M.B. :—

Division I.—F. C. Bury. Division II. (in alphabetical order)—J. M. Johnson, J. Kauffmann, and W. K. Wills.

The following have satisfied the Examiners in the preliminary examination in Science (Faculty of Medicine) :—

Division I.—G. Braide, W. A. Hooton, E. A. Shaw, and J. C. Thresh. Division II.—H. Merrall and H. Sidebotham.

Cholera Precautions in Dublin.—At a special meeting of the Municipal Council, held on Monday last, the following resolution was—after considerable discussion—finally adopted :—"Resolved, that in the event of the Local Government Board (for Ireland) deciding to constitute the Corporation sole authority to give effect to Clauses 149 and 150 of the Public Health (Ireland) Act, together with the provisions of the Epidemic and Infectious Diseases Act (1883), the Council hereby declares its willingness to accept the responsibility, and authorises the Public Health Committee to make suitable arrangements for the efficient discharge of the duties, subject to the proviso that the expenses of the execution and superintendence of such regulations shall be paid by the sanitary authority, which would be liable for the same under the Public Health (Ireland) Act, 1878, had such direction not been made by the Local Government Board." At a special meeting of the Board of Governors of Sir Patrick Drew's Hospital, Dublin, held on Friday, July 25th, the following resolutions were adopted :—"Resolved, that with a view of affording local accommodation in case of the arrival of cholera, a communication be made to the proper authorities suggesting the immediate erection of sheds on the hospital premises for the reception and treatment of male and female patients under the control of the governors of the hospital." "That arrangements (if possible) be at once made with such authorities (under the 149th and 155th Sections of the Public Health (Ireland) Act) for the provision of aid and accommodation, and to defray the expenses attendant on the reception of cholera patients." "That copies of these resolutions be forthwith forwarded to the Local Government Board (for Ireland), the Corporation of Dublin, and the Commissioners of Pembroke township, and that the Committee of Economy be instructed to carry out the details of the arrangements."

Sanitary Congress.—The arrangements for the Congress and Exhibition to be held under the auspices of the Sanitary Institute at Dublin, in the autumn, are approaching completion. The Exhibition will be opened from September 30th to October 18th, and the Congress will take place in Trinity College, where the Examination Hall and four rooms in the new buildings have been very kindly placed at the disposal of the Institute by the Board of Trinity College. The Royal Dublin Society have granted the use of their lecture theatre for the president's address, &c. The following papers have been promised. In Section I. (Sanitary Science and Preventive Medicine—special question, housing of the poor). Papers by Professor De Chaumont, Professor Cameron, Dr. Ringrose Atkins, Mr. Barrington Kennett, and Mr. E. Spencer. In Section II. (Engineering and Architecture—special question, disposal of sewage and town refuse). Papers by Mr. Percy Boulnois, Mr. W. Eassie, Mr. Henry Robinson, Mr. Parke Neville, Mr. J. Young, Mr. W. R. Maguire, and Mr. J. A. Fahie. In Section III. (Chemistry, Geology, and Meteorology—special question, effect of various water supplies and of site and climate on health). Papers by Professor Tichborne, Rev. M. H. Close, Dr. J. Byrne Power, and Professor Hull.

The Dwellings of the Poor.—The Royal Commission on the better housing of the poor, which is presided over by Sir Charles Dilke, will, it is understood, present an interim report to the autumn session of Parliament in October. This report will embody the evidence and the recommendations of the Commission, with regard to the metropolis and England and Wales generally, both in respect to the urban and rural populations. The Commission will afterwards proceed to take evidence concerning the state of matters in Scotland, and then with regard to the towns of Ireland.

Epidemic in France.—A despatch from Moussey, in the Department of the Vosges, states that an epidemic, supposed to be purple typhus, is raging there. Ten persons have succumbed and 30 others are said to have been attacked.

The Plague.—Dr. Batorsky, a surgeon attached to the Department for Foreign Affairs, has left St. Petersburgh for Bagdad, in order to join a medical board deputed to investigate the outbreak of plague in that district.

Small-pox in South Africa.—It is reported that small-pox is increasing to an alarming extent at the Diamond Fields.

"Dreadnought" Seamen's Hospital, Greenwich.—A quarterly general court of the governors was held on Friday last, at 39, Fenchurch Street, E.C., Joseph Moore, Esq., in the chair. Three hundred and ninety-six seamen had been admitted to the hospital as in-patients during the past quarter from British and Foreign ships, of which number 84 came from the Port of London, 34 from Liverpool, 25 from Glasgow, 13 from Hull, and 12 from Newcastle. In addition to the British seamen 124 sailors of different nationalities were benefited, including 24 from Norway, 19 from Sweden, 12 from Germany, 11 Fins, 5 from the United States, besides representatives from France, Holland, Russia, Arabia, and amongst the Colonial possessions of the Empire from Australia, Canada and the West Indies, while one patient is entered as "Born at sea." The committee reported that the system of drainage at the hospital, which had been in operation since the erection the building in 1763, was inadequate for the sanitary requirements of the present day, and that the engineer whom they had professionally consulted on the subject, reported it as being so radically defective that nothing short of its entire reconstruction would place the hospital in a safe sanitary condition. The works consequently to be undertaken were very extensive, and were estimated to cost 7,370*l*. They also said that while the drainage works were in progress they deemed it a favourable opportunity for enlarging the insufficient accommodation hitherto provided for divine worship. The present chapel (a converted ward) has at the best of times been but barely sufficient for the wants of the hospital, and now without doubt it is too small for its purpose. This is mainly due to the increased number of patients treated, and the committee in inviting contributions towards the drainage expenses, and for the erection of an entirely new chapel (estimated to cost 1,281*l*.) hope they are making ample provision, in both these respects, for many years to come.

The Fiske Prizes.—The *Boston Medical Journal* is of opinion that the subjects of the Fiske Prizes are not sufficiently made known. They were established by a Dr. Caleb Fiske, once President of the Rhode Island Medical Society, to which body the adjudication is entrusted. On more than one occasion they have been awarded to Englishmen. There are four prizes, of 200 dollars each, offered for 1885, viz. :—(1) Original Investigations in Household Hygiene. (2) The Present State of the Germ Theory of Disease. (3) Physiological and Pathological Effects of the Use of Tobacco. (4) Migraine—its Nature and Treatment. Essays (with mottoes written thereon, with sealed packets having the same mottoes on the outside, with their author's name and residence within) to be forwarded, post-free, to Charles W. Parsons, M.D., Secretary to the Trustees of the Fiske Fund, Providence, Rhode Island, on or before May 1st, 1885.

Foreign Graduates' Association.—Dr. W. C. Daniel, of Epsom, has been elected President for the ensuing year, *vice* Dr. H. J. Hardwicke, of Sheffield, who becomes a Vice-President. Dr. K. N. Macdonald, a former president, has also been elected vice-president, and Dr. J. J. Bailey, of Marple, Hon. Secretary. The Council consists of twelve London and Provincial foreign graduates.

At the Examination in Diseases of Women, held at the Hospital for Women, in July, the first prize was awarded to Mr. J. R. Jones, of University College Hospital, the second prize to Mr. Barber, of St. Bartholomew's Hospital.

New Eye Hospital at Birmingham.—On Thursday week Lady Leigh formally opened a new eye hospital, which has been erected in Edmund Street, Birmingham, and which will take the place of the old institution in Temple Row, which has long proved inadequate to meet the numerous demands made upon it. The cost of the new hospital and appliances is estimated at 20,000*l*.

Charitable Bequests.—The late Mr. James Carthew Quick, of 82, Marine Parade, Brighton, has bequeathed 1,000*l*. each to the London Hospital, Whitechapel, and the Sussex County Hospital, Brighton.

The Lunacy Laws.—In consequence of recent legal proceedings which have attracted public attention, Sir Henry Holland has placed before the Government a suggestion that reports, for presentation to Parliament, shall be called for from the secretaries of the different embassies as to the working of the lunacy laws on the Continent, and especially on the following points:—Whether there are private as well as public asylums; what are the checks against improper admission or detention of persons in an asylum; what supervision and inspection, if any, is exercised, by any public and recognised authority; and the nature and powers of such authority.

Post-Mortem Introduction of Arsenic into the Body.—The *Boston Medical Journal*, July 10th, states that experiments have been carried on in the chemical laboratory of the University of Michigan, with the view of determining whether or not white arsenic can be diffused through the body after it has been mixed with water and injected into the rectum or mouth after death; this having been the most important question in a murder case tried in Michigan recently. Drs. Vaughan and Dawson concluded from their experiments on dead bodies that arsenic is widely diffused through the body when introduced after death, and that, therefore, in a case of suspected arsenical poisoning, if arsenic had been introduced into the body after death, the finding the poison in the various organs would be no proof that the arsenic was introduced during life, and was the cause of death. Arsenical embalming fluids may, according to the above, be used as a means of covering up crime, and this fact should be borne in mind in cases of suspected poisoning by arsenic.

Observations on a Decapitated Head.—We transcribe from the *Revue Scientifique*, July 5th, the principal part of a paper by Dr. Petitgrand, giving an account of the observations he had the opportunity of making upon an Annamite who was decapitated, at Saigon, in 1875, an account characterised by the editor of the *Revue* as highly important, as furnishing the most precise evidence of the presence of consciousness after decapitation that exists. The man executed was a pirate of robust frame and brave demeanour, and M. Petitgrand concentrated his whole attention upon him. He was placed in a kneeling posture, strongly attached to a solid post in front of him, with the head and neck voluntarily and strongly flexed. The place for the blow having been marked with betel-juice, the head was struck off at one blow by means of a long sword having a broad blade,—the procedure to be properly carried out requiring great address on the part of the executioner, and much *sang-froid* on that of the culprit. When this is the case there is of course far less contusion and concussion of the spinal cord than with the guillotine; and, therefore, so far a greater possibility of an ulterior manifestation of the functions of the encephalon. During the preparations, Dr. Petitgrand never withdrew his eyes from the culprit, placed at two metres distance only, and with whom he more than once exchanged looks. The head fell within a metre and a half from him, without, as ordinarily, rolling away, and, the divided part of the neck resting on the sand, the hæmorrhage which ensued was very slight. At this instant he was startled at finding the eyes of the head steadily fixed on his own, and not believing that this could be an act of consciousness, he rapidly described a quarter of a circle around the head which lay at his feet, and saw plainly the eyes following this movement. He now returned to his former position but more slowly, and the eyes followed him for "a very short instant," and then suddenly ceased to do so. At this moment the face expressed manifest anguish, the poignant anguish of a person in a state of acute asphyxia. The mouth opened violently, as if to take a last gasp of respirable air, and the head, thus displaced in its equilibrium, rolled on its side. This contraction of the maxillary muscles was the last manifestation of life, a period of from fifteen to twenty seconds having elapsed since decapitation. From these facts Dr. Petitgrand draws these conclusions:—(1) That the head separated from the body is in possession of all its faculties as long as the hæmorrhage is restrained within certain limits, and that the proportion of oxygen dissolved in the blood is sufficient for the maintenance of the nervous function, that is for a short period, which, in any case, would not exceed half a minute. (2) That the repeated convulsive movements of the lower jaw, after the head has become detached—movements which, without doubt, have given rise to the expression, "biting the dust"—are nothing else than the habitual reflex movements of the face in acute asphyxia. These cannot be absent when the little blood contained in the decapitated head flows away or becomes disoxygenated; and are caused by the sensation (probably conscious) of the want of necessary oxygen in the blood remaining in the encephalon. On the present occasion Dr. Petitgrand had no opportunity of observing the trunk of this beheaded man; but he has had opportunities of observing it on other occasions, and has always noted the following circumstances. The head once detached, the trunk (the body being attached by cords to the post is unable to fall) suddenly assumes the vertical position, columns of arterial blood springing up a metre or more in height. This straightening of the trunk, and the jets of blood being simultaneous, are in fact related to each other as cause and effect; for at each new systole, manifested by the projection of a column of blood, the trunk is raised, to bend again immediately. The jets soon do not ascend to more than a few centimetres, and the movements of the trunk are reduced to mere oscillations. After from twelve to fifteen systoles, all the blood is evacuated and the trunk remains motionless, and as it were suspended to the post, which prevents it falling on the ground. Dr. Petitgrand has never noticed any elevation of the ribs or sinking of the epigastrium, or any other sign of an attempt at respiration. The heart seems to continue to live awhile its own proper life, as is shown by its violent systoles, which are capable of effecting the stretching of the trunk.

Female Circus-riders and Gymnasts.—Dr. S. E. Post, in an interesting letter to the *New York Medical Record*, for May 17, communicates the results of observations, which he had the opportunity of making during several weeks upon the leading women-performers of a circus. His attention was directed to the influence of their work on the general health, and on the menstrual and child-bearing functions. He found that the riding, jumping, and leaping did not influence pregnancy unfavourably. Temporary suppression of the menstrual fluid sometimes occurs during these exercises, and its duration tends to be prolonged; but an excessive loss was not found in any case. The non-existence of uterine disease could not certainly be ascertained; but it appeared probable, from the absence of pelvic discomfort and leucorrhœa, and from the excellent general health. Their faces did not exhibit any evidence of especial fatigue, and they all ate and slept well. Dr. Post furnishes particulars concerning five of these women: three being foremost riders, and two gymnasts. Their histories differed mainly in the fact that the gymnasts had early abortions without extraordinary cause, while the riders never miscarried, except as the result of a fall, their routine work not producing this effect. The routine life of

the gymnast obviously much favours the dislodgment and expulsion of the ovum at an early stage. But it must be observed that her costume furnishes much less facility for concealing pregnancy, and, therefore, a greater temptation for provoking abortion than is the case with the rider, who can exhibit throughout the eighth month without detection. The fact that pregnant women can undergo the violent exertion they have to sustain while in the ring, and yet bring forth healthy children at term, and suckle them, is most remarkable. The explanation in part lies in their having pursued this habit of life from childhood, the muscular attachments of the uterus being probably rendered unusually firm by the training that has been pursued. Menstruation, however, is more injuriously affected, dysmenorrhœa of some kind being the rule among these women. The menstrual discharge often becomes suppressed during performance, to appear afterwards in excess. The influence of the work on involution of the uterus seems good, for some of these women returned to their occupation in from four to six weeks after confinement, without injury. In some of these women the chest-development was very fine, measuring under the clothing 34, 36, and 38 inches in individuals weighing less than 130 lbs. With a superb bust curve, in none of them were the breasts large, the effect being obtained by the "ribbing out" of the thorax, which renders even a small breast prominent.

A Child with a Tail.—A correspondent of *Science*, June 6th, describes a tailed child which was recently born at Louisville. "We found" says one of a party which visited the child, "that it was a female negro child, eight weeks old, normally formed in all respects, except that slightly to the left of the median line, and about an inch above the lower end of the spine was a fleshy, pedunculated protuberance about 2½ inches long. At the base it measured 1¼ inch in circumference. A quarter of an inch from the base it was somewhat larger, and from thence it tapered gradually to a small blunt point. It closely resembled a pig's tail in shape, but showed no sign of bone or cartilage. The appendage had grown about a quarter of an inch since the child's birth. The parents are both normally formed. In Darwin's "Descent of Man," Vol. I., p. 28, he speaks of a similar case, and refers to the *Revue des Cours Scientifique*, 1867–68, p. 625. A more complete article is that by Dr. Max Bartels, in the *Archiv für Anthropologie* for 1880. He describes 21 cases of persons born with tails, most of these being fleshy protuberances like the one just described."

Dental Caries in Normandy.—Several departments in Normandy furnish a considerable number of rejections among the recruits drawn for military service. The Seine Inférieure for example, furnishes a mean of 50 per cent. of rejected conscripts. This singular fact in so wealthy a department, in which the population seems strong and prosperous, has excited the attention of Dr. Chervin. He finds that the most frequent malady giving rise to rejection, after cases of "general weakness," which preponderate, is dental caries, which, taking the department altogether, furnishes 15 per cent. If the different cantons in the department are examined, a great difference among them is discovered, varying from 80 per 1,000 the lowest, to 229 the highest number. Pursuing his investigation of the department for 20 years, M. Chervin arrives at the conclusion that race is the chief cause of the predominance of caries. Examining one of the ethnic elements which is the most persistent, and which furnishes most information on the subject of race-stature, he finds that the department is inhabited by two different races, the shorter in the east, and the taller in the west. In the population of the higher stature, dental caries is far more frequent than in that of the lower stature; and this fact is not peculiar to the Seine Inférieure, but is observed also in other departments.

APPOINTMENTS.

Boulter, Walter Ernest, M.R.C.S., Eng., L.R.C.P., and L.M., Edin.—Medical Officer to the Infirmary and the Workhouse, Woolwich Union, *vice* Dr. Riee, resigned.

Emmison, Luther, L.F.P. & S., Glas., L.S.A., Lond.—Medical Officer to the Haxey District, Gainsborough Union.

Lediard, H. A.—Surgeon to H. M. Prison, Carlisle, *vice* J. A. Macdougall, resigned.

VACANCIES.

Battle Union.—Medical Officer to the Sixth District, in succession to Mr. Roger Duke, resigned. Area, 11,282 acres. Population, 2,697. Salary, £80 per annum.

Conway Union.—Medical Officer to the Conway District and the Workhouse, in succession to Dr. Robert Jones, resigned. Area, 18,475 acres. Population, 6,702. Salary, £80 per annum. Salary for Workhouse, £35 per annum.

Lancaster Infirmary and Dispensary.—House Surgeon. (*For particulars see Advertisement.*)

Queen's College, Birmingham.—Medical Tutor. Salary, £100 per annum. Application by August 7th.

West London Hospital, Hammersmith, W.—Surgeon Dentist. Application by August 21st.

DEATHS.

Bell, Alexander Montgomerie, M.D., F.R.C.S.E., at 43, Manor Place, Edinburgh, on July 28.

Riordan, Thomas Travers, M.D., Formerly of Castleconnell, county Limerick, at Marksbury, Somerset, on July 10, aged 80 years.

NOTES, QUERIES, AND REPLIES.

CHOLERA AND ITS TREATMENT.

[TO THE EDITOR OF THE MEDICAL TIMES.]

Sir,—The cholera is making sad havoc in France, and may any day break out in this country.

There are many young medical gentlemen who will be perplexed to know as to the treatment.

In 1848 and 1849 many different modes of treatment were tried, and notwithstanding all the researches that have been made since, there is no fixed plan of treatment adopted by the Profession. Many eminent medical men have placed their valuable lives in danger, and worked hard to find a remedy; but the only means known of preventing the disease and checking it are those adopted by Sir Guyer Hunter and his Staff in Egypt. Isolation and cleanliness, pure air and good water, and especially early medical attention and good nursing. We have been taught by sad experience that impure water and filth favour all epidemic, endemic, and contagious diseases, and increase their virulence.

During the epidemic of 1849 I was requested to take charge of those suffering from cholera and diarrhœa in the townships of Westhoughton, Over Hulton and Lostock. These townships were very free from stagnant and filthy water, and although I was kept busy night and day for six weeks, I had only two deaths from cholera; whereas in the adjoining township of Hindley, the water was very deficient, and a brook which *took in the sewage* from houses on both sides passed through the village. The disease in this village was very virulent, and many deaths took place. Isolated cases occurred near this spot. A committee of gentlemen sat here night and day to give out blankets, food, and other necessaries. Five medical men were stationed in the village. Isolated cases of death took place in the immediate neighbourhood of the village. Other cases were treated successfully in the more healthy portions of the township where pure air, good water and proper attention could be had. I found the most favourable symptom was the secretion of bile in the motions, and I adopted with success the calomel and opium treatment in doses of two grains to one grain, or two grains to half a grain for an adult, together with a saline mixture. Properly prepared sago-gruel and brandy, toast water, coffee or cocoa, or milk and water in equal parts, boiled and allowed to go cool. Hygiene is too much neglected. The food and drink are quite as important, and require quite as much attention as the medicine, also the immediate removal of all discharges. I believe I was instrumental in saving many lives by advice as to preparing and administering food and drink. I am convinced that good nursing is quite as necessary in cholera as medicine. I have seen patients almost pulseless for hours, the legs and arms cold blue with violent cramps, who after many hours rubbing with warm flannels, and giving gruel and brandy in small quantities, recovered, and some are now living who were in that state in 1849. It has been stated that many of the deaths which take place at Toulon, are from the subsequent fever. No doubt some of these cases are attributable to giving opium without calomel, thus checking the natural secretion from the liver. The acid treatment recommended by the College of Physicians of Dublin, was used in many cases in 1849 by some of my colleagues, but was abandoned and the treatment adopted by me resorted to with greater success.

I am, Sir, yours &c.,

Johnson Martin.

Hope Gate, Bolton,
July 22nd, 1884.

The Provident Surgical Appliance Society.—The recent Floral Fête and Fair, held at the Duke of Wellington's Riding School, in aid of the Provident Surgical Appliance Society for the Relief of the Crippled Poor, has done much to make the useful institution more widely known. The fête was uot so well attended as it deserved to be, considering the many attractions provided, including the leading dramatic and musical artistes, but we are glad to learn it was a success. Mrs. John Wood, the celebrated actress, purchased one of the Beaufort artificial legs, which this society provides, and gave it to the Surgeon on the understanding that it was to be applied to the first deserving case. The leg was exhibited at the fête with Mrs. John Wood's card attached to it. The society carries on its work at 28, Finsbury Circus.

COMMUNICATIONS RECEIVED—

Mr. CUMBERBATCH, London; Mr. LAWSON TAIT, Birmingham; Sir SPENCER WELLS, Bart., London; Mr. JORDAN LLOYD, Birmingham; Mr. C. LOWTHER KEMP, London; THE SECRETARY OF THE FOREIGN GRADUATES' ASSOCIATION, Sheffield; THE REGISTRAR-GENERAL, Edinburgh; THE GENERAL HOSPITAL, Vienna; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; THE EXPRESS DAIRY COMPANY, London; Dr. LEDIARD, Carlisle; Dr. BANHAM, Sheffield; Mr. MITCHELL BANKS, Liverpool; Mrs. LANKESTER, London; Dr. CLIFFORD BEALE, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; OUR DUBLIN CORRESPONDENT; OUR EDINBURGH CORRESPONDENT; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Mr. THOS. J. WOODROW, London; Mr. J. MOIR CLARK, London; OUR BELFAST CORRESPONDENT; Dr. DUNGLISON, Philadelphia; Mr. NETTLESHIP, London; Dr. HACK TUKE, Lewes; Messrs. BARKER & SONS, London; Dr. G. E. HERMAN, London; Dr. CARTER MOFFAT, London; Mr. J. H. HAYWARD, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. H. J. THOMPSON, Sevenoaks; THE SECRETARY OF THE SEAMEN'S HOSPITAL, Greenwich; THE SECRETARY OF THE HOSPITAL FOR PARALYSED AND EPILEPTIC, London; Dr. CARTER, London; THE SECRETARY OF THE MEDICAL SICKNESS ANNUITY AND LIFE ASSURANCE SOCIETY, London; THE REGISTRAR-GENERAL FOR DUBLIN; Dr. MORELL MACKENZIE, London; Dr. WILLOUGHBY, London; Dr. SHELLY, Hertford; Mr. CLUTTON, London.

BOOKS RECEIVED—

Report on the Health of the Borough of Birmingham, for quarter ending June 28, 1884, by Alfred Hill, M.D.—Clergyman's Sore Throat, by George Stoker, M.K.Q.C.P., &c,—A System of Oral Surgery, 4th Edition, by James E. Garretson, M.D., D.D.S.—A Defence of Harvey, by George Johnson, M.D., F.R.S.—Notes on Physiology, by Henry Ashby, M.D., M.R.C.P.—On the Education of Medical Practitioners for Colonial Service, by Dyce Duckworth, M.D.—Encyclopædic Dictionary, Part 7—Die Zuckerharuruhr von Dr. Emerich Hertzka—Poisoning by Canned Goods, by John G. Johnson, M.D.—On the Presence of Payer's Patches in the Cæcum and Colon of certain Mammals, by G. E. Dobson, M.A., F.R.S.—The Origin of the Hebrew Religion, by Eustace R. Conder, M.A., D.D.—Tourist's Travel Talk—The Moselle—The Medicine Stamp Tax, by Axel Gustafson—Diseases of the Throat and Nose, Vol. 2, by Morell Mackenzie.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal——Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Mediciu—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Altrincham and Bowdon Guardian—Liverpool Medico-Chirurgical Journal, July—Journal of Anatomy and Physiology—Archives de Neurologie—Dietetic Reformer—Archives of Pediatrics—Boy's Own Paper—Girl's Own Paper—Sunday at Home—Leisure Hour—Friendly Greetings—National Anti-Compulsory Vaccination Reporter—Birmingham Medical Review, August—Journal de Saxon.

APPOINTMENTS FOR THE WEEK.

Friday, August 1 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

INTERNATIONAL HEALTH EXHIBITION (CONFERENCE ON SCHOOL HYGIENE).—"Recreations and Gymnastics." Communications by Rev. E. Warre, M.A., Hon. E. Lyttelton, and R. von Schweitzer.

Saturday, August 2.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, August 4.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, August 5.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, August 6.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, August 7.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES

AND GAZETTE.

No. 1780. LONDON, SATURDAY, AUGUST 9, 1884.

Contents.

ON THE MEDICAL CHARGE OF THE POOR.[1]

By TIMOTHY HOLMES, M.A., F.R.C.S.,

Surgeon to St. George's Hospital, &c.

GENTLEMEN,—Having been honoured by an invitation from your secretary to give this evening's address, I thought it better to choose some subject which, while it would interest us all, whether consulting or domestic practitioners, would be a little away from the ordinary round of purely medical topics. I was inclined, also, to bring my present subject—"The Medical Charge of the London Poor"—under your notice by the fact that I have long been associated in the movement for founding provident dispensaries, and for reforming the out-patient departments of our hospitals and our dispensaries, and my opinions on these subjects have not always been accurately understood—very probably, by my own fault.

The subject is an enormous one. To treat it adequately would require far more than the time at my disposal; and it could not be treated with any approach to fulness without a free discussion in which opposite ideas could be expressed, and long-standing prejudices combatted. There is no possibility of arriving at any satisfactory solution of the question without some such discussion, in which both classes of practitioners, the family and the hospital medical men, shall take part.

I hardly think it necessary to spend time in proving that the present system of medical attendance on the London poor is bad. No one that I have met with denies this; and I fear that instead of getting better it is getting worse. The chief abuses of which we complain are the inordinate numbers of the patients; the absence of all care in the selection both of patients and of cases for the out-patient departments; the disappointment and detriment which is caused to the out-patients by hasty routine treatment; and the damage to private practitioners caused by the competition of gratuitous institutions. The steps recently taken (and especially the opening of a 3*d.* pay department by one of our chief hospitals) all tend to aggravate every one of these evils; yet, as far as I see, the medical profession make no stir in a matter so vitally important both to the public and themselves, while ready to embark in various medico-political schemes and speculations which, whether right or wrong, are of infinitely minor importance.

It is on this aspect of the question that I want you to think seriously this evening. I have often been represented as urging out-patient reform or provident dispensaries as a panacea for the abuses of which we have abundant reason to complain. I hope I am not so foolish. I have done my best to recommend to the profession such steps as I thought most advisable under present circumstances; but I know as well as any one else that a long pre-existing and gradually increasing

[1] The Cavendish Lecture. Delivered before the West London Medico-Chirurgical Society, on July 11th, 1884.

system like the present can only be gradually amended; and I hold most firmly that it never will be amended until the general opinion of the medical profession is strongly enlisted in its reform, and until the great body of the general practitioners of the kingdom are prepared to take personal trouble in effecting its reform.

The poor of London under medical care naturally divide themselves into three classes: Those under the Poor-law; the out-patients of the various gratuitous hospitals and dispensaries; and those who pay for medical attendance, members of clubs or otherwise.

In all these kinds of medical attendance I contend that there are defects which act injuriously both to the patients and to their medical attendants; and I further contend that there is no chance of the remedy of these defects except by the vigorous and united action of the medical profession, an action which again necessitates an enlightenment of the public sentiment of the profession on the subject. So long as we go on under the assumption that some change in the regulation of hospitals, or some Act of Parliament, or some plan devised by a society or an individual, will remedy the evils of the present system, so long the system will continue and its evils will increase. It grew up gradually in consequence of the negligent action of the profession; its reform can only be expected to come about gradually, as a consequence of our awakening to a sense of its evils and applying those gradual remedies which alone can effect a change in so inveterate an abuse.

Let us not overlook the fact that the first great opportunity for the introduction of a sounder state of things was given by the enactment of Gathorne Hardy's Act, which established efficient Poor-law hospitals in all parts of the metropolis and out-patient dispensaries, which, if not equally efficient, can at any time be made so. Before that period, it might fairly be argued that the medical charge of the poorest class of our population was almost avowedly thrown by the State on the charity of the medical profession. Now the condition of things is almost reversed. The State has made arrangements for the supply of medical assistance to all persons of the lowest class who require it, and it is the medical profession through whose persistence in miscalled charity it is in a great measure due that these arrangements are not completed. It must be recollected that the acceptance of medical relief from the Poor-law institutions does not make a man a pauper. The existence, then, of these institutions takes away all pretence of actual necessity for the numerous charitable foundations which, under the name of free dispensaries and institutions for special classes of persons or of maladies, swarm in every part of the town, to the impoverishment of the great subscription hospitals, but to the benefit, no doubt, of many persons besides those who resort to them as patients.

My first contention, then, is that a great improvement would be at once made in the medical care of the poor if all possible attention were given to render the existing Poor-law dispensaries more efficient for their purpose. At present, if I am not mistaken, they are considered by the poor as much inferior to the out-patient departments of hospitals and to the free dispensaries as medical institutions, and are chiefly resorted to with a view to get the doles of food, &c., which the Poor-law medical officers are allowed to prescribe. But, of course, in order to their being brought into full use, they must be made thoroughly efficient in all respects as medical institutions, and we must face the question whether the view which I have above attributed to the poor of the medical inferiority of these dispensaries to the out-patient departments of hospitals is true or no. Now I am strongly impressed with a view of the Poor-law medical service which, if it is not true, is at any rate widely prevalent, and which is so simple that it can easily be refuted by facts if it be erroneous. I mean that it is so underpaid that it cannot be efficiently served. The answer which the public authorities would give to any such assertion is a simple one, and one which, from their point of view, is conclusive, viz., that they have no difficulty in obtaining qualified candidates at the rates which they fix, and therefore are not justified in wasting the money of the ratepayers by giving more. And it is perhaps hopeless to expect any other answer from them. Is it any less hopeless to say that the common opinion of the profession ought to prevent men from applying for appointments which are inadequately paid, and which are only sought for as a means of keeping some one else out of the district or for some other indirect object? I do not know; but this I am sure of, that the main reason why so enormous a weight of unpaid labour is saddled on the medical profession is the existence in that profession of so large a number of persons always ready in vulgar phrase to "undersell" their competitors. Meanwhile, in default of such a healthy corporate feeling, or in expectation of its growth, can nothing be done by the great corporations of the profession? I am amused to see at the present time the excitement in the medical journals and in public about giving the members of the profession votes for representatives in the Medical Council, votes for the election of the President of the College of Surgeons, a share in the management of the College, &c. What practical good to any one of us would the obtaining of any or all these objects be? In homely phrase, who would be a penny the better for them? But if we could make either College an organ through which the general body of its members might approach the Government on public questions, such as that under discussion, with some prospect of negotiating on fair terms, it would be a matter of direct importance to every practitioner to obtain adequate representation in that College, and the College itself might obtain an influence over its members far beyond what it now exercises, limited as that is by all sorts of formalities, and hardly efficient even for the repression of the grossest forms of charlatanism. I would commend this hint to our medical politicians, and pass away from this first part of my subject with the mere assertion that the first step, or the most essential condition, of reform in the medical care of the London poor is the completion of the Poor-law dispensary system; and that this is intimately connected with the reform of the whole system of electing, paying, and regulating the medical service of the Poor-law.

Our next topic is one on which so much has been written and said that it is unnecessary for me to discuss it as if it were new to any one here. Large figures have been produced to state the enormous numbers of persons who are in attendance on our hospital out-patient departments and dispensaries. These figures have been questioned, though never disproved; but I do not care to go into such a barren dispute. No one who knows anything about it, certainly no one who has been an officer of one of these institutions, can deny either of these two assertions—that the out-patients are far more in number than can possibly be fairly attended to in the time, and what is perhaps even more important, that a very large proportion of them are suffering from affections which cannot be cured by the method employed of giving them a bottle of physic and sending them away in the smallest number of seconds possible. To remedy these evils, the plan I have suggested is one to which I invite your serious attention. It is intended to compass three main objects:—1. To limit the number to a point at which each individual can be fairly attended to by the appointed officer. 2. To direct the out-patient department to its proper function—that of giving advice in cases likely to derive benefit from that advice, instead of wasting its energies in dealing out medicine to a miscellaneous crowd, half of whom probably either do not take the physic or do not get any good from it. And 3. To

put the out-patient department in its proper place as one of the main engines of teaching medicine to the students.

In the first place, I would abolish all the existing free dispensaries, or convert them into provident dispensaries. They were founded before the Poor-law improvements already alluded to, and these have rendered them now quite superfluous. The out-patient departments ought then to be consultative merely, except for those who would have been in-patients of the hospital. And no one should be admitted to consultation unless sent by some medical authority in the neighbourhood of, or affiliated to, the hospital. Such medical authorities would be the provident dispensaries and medical men of the district, and they might attend the consultation. The numbers would of course be limited, and the letters would be obtained previously.

I submitted this suggestion to a meeting of the Hospitals Association at which I was unluckily not able to be present, and was surprised to see afterwards that it was criticised as intended to abolish out-patient practice. On the contrary, it would render such practice far more effective both for the cure of the patient and the instruction of the student. We may usefully take a lesson in this particular from the Scotch hospitals. In Edinburgh the foolish system (or no system) which has grown up in London of late years has no existence; but it is a regular part of the visit of the physician or surgeon to give an out-patient consultation after he has seen his in-patients, and it is, to the student, one of the most useful parts of the visit. An hour spent in listening to such consultations would do more towards teaching a student the ordinary routine of professional business than a month spent in watching a jaded medical officer scratching prescriptions or letters in hot haste on successive bits of paper and struggling to get rid of patients whose cases he has no time to study, far less to describe.

Another criticism on this scheme comes from certain hospital medical officers who think that it would diminish the utility of the out-patient department as a supply of cases for the wards. This I believe is an entire mistake. If the out-patient department is limited to consultations there would be no temptation to the dispensary officers or private practitioners to send their chronic cases to the hospitals, and surely out of the interesting or obstinate affections requiring consultation more valuable cases could be selected for admission than from the present higgledy-piggledy.

The other objection, that the above plan would limit the opportunities of the hospital out-patient officers for observing the effects of treatment is met by the consideration that they have all the former in-patients to treat, and can thus by concert with their seniors obtain as many examples of any disease which they may wish to study as they may desire. Besides, there is no reason why the effects of the treatment suggested to any dispensary or private patient should not be verified as often as is judged necessary. The advice given at the out-patient consultation might easily include the recommendation, so often given to a private patient, to come again at a certain date in order to observe the effects of the treatment suggested.

But the limitation of the numbers of out-patients is a primary condition of any really efficient treatment or teaching, and this diminution cannot be effected unless there are other institutions to take the place of the free dispensaries which are to be abolished, and the curtailed out-patient departments. As I have said, an enlarged and reconstituted Poor-law department will do this to some extent. But to undertake the medical charge of all these vast crowds at the public expense would be to substitute a worse evil for that which now exists. Most of them are able, perfectly, to pay for themselves, under the provident system, and most of them besides are suffering from ailments which can only be treated by domestic medical care, not by the hospital prescription and physic bottle, and it is here that the system of provident dispensaries and clubs comes in, and to some system of this kind I am sure we must come at last. A provident dispensary is really only a sick club; but it has the great advantage over an ordinary club that it can be made part of a large system, extending over the whole country (if the scheme succeeds), so that a member would not lose his former contributions by change of domicile, but would register as a member of the nearest branch which he might find in his new home. During the many years I have been connected with this subject I have not yet heard any better plan proposed. But I am by no means a fanatic on the point, nor blind to the defects of the scheme which has been put forth by the Society with which I am myself connected. Its main defects (I speak of those which are avoidable defects) are two, viz.: that the fees are too low, and that there are no certain means of keeping out persons whose income is too high. Let me not be thought wanting in courtesy if I say that the first defect is the fault of the medical profession itself. We could have fixed higher fees, but for two objections that seemed to us unanswerable—first, that these fees are already as high as those paid by the clubs whose members we invite to join; and second, that one of the great difficulties which provident dispensaries have to face is that they are sure to be undersold by the neighbouring medical men. This applies even to present rates. When medical men equal to all appearance in titles and standing to the officers of the provident dispensary will give medicine and advice for 6*d.*, and are not deterred by any medical opinion from starting sham provident dispensaries of their own, it is evident that we cannot fix such fees as I in my own opinion would judge satisfactory. Here, as in the case of Poor-law appointments, the only effectual aid which can be given must come from the profession itself.

With regard to the absence of a preliminary inquiry before admission as a member, it is in my opinion a matter of slight consequence. No working population, in the present day, would tolerate an enquiry that would really be effectual, and as we invite the great friendly societies to join in the movement, it is clear that no enquiry into the circumstances of those already members could be instituted. But the matter is really of no great importance. Flagrant abuses can be remedied by complaint to the Committee of the dispensary (of which the medical officers are members), and if a few persons thus obtain admission into a dispensary who ought to be private patients, the price is a small one to pay for the certainty of a fixed, though moderate, income without bad debts or cost of collection out of a class who now pay nothing.

Anyhow, we have done our best to start a system under which we hoped to improve the medical care of the poor, and at the same time to benefit the medical practitioners. Our success up to the present time has not corresponded with our hopes, and this I think depends on two main causes, the competition of gratuitous institutions and the indifference or hostility of the bulk of the medical profession to our scheme. Perhaps the two may be reduced to one, for I think if the medical profession were heartily in favour of the scheme they would soon find means to enforce a reform of the gratuitous institutions.

And this it is which induces me to avail myself of this opportunity of bringing the matter before you to-night. If private practitioners were satisfied with our hospital and dispensary system as it is, there would be no more to be said; but you meet no one who thinks that it is not in want of reform; if a better scheme were anywhere proposed, I for one am in no way bigoted to my own, but I have never met with even any other scheme better

or worse, which has been practically thought out, and put in working order. And really the matter presses. Lately we have seen with amazement a great hospital (Guy's) doing, I presume, under high legal sanction, that which we would consider disgraceful if done by a struggling young medical speculator, I mean offering advice and medicine to all and sundry for threepence. This strange proceeding has been still more strangely represented in some quarters as a development of the provident principle. Now, it cannot be too clearly understood or too frequently repeated, that the essence of the provident principle is to induce a man to make provision *in health* for the sickness which is sure some day to fall upon him, and such provision as will give a reasonable remuneration to his medical attendant. If this be so, I need hardly say that a plan which says to the poor man "take no thought for the day of sickness, for when it comes you may surely hope to have 3*d.* in your pocket, and this is all that the authorities of Guy's Hospital think the opinion of their medical men and their own medicine is worth," is even more destructive of providence than the gratuitous plan; since it gives the patient the satisfaction of paying for what he has, and therefore encourages people to apply who know they are not objects of charity. You and I know that the price charged is below the value of the article; but I doubt much whether the patients think so. The plan if it became universal would no doubt do more than anything else to perpetuate all the evils of the present system in their most aggravated form. It appears to me, as an ignorant layman, directly contrary to the eleemosynary principle on which the hospital was founded, and which its Act of Parliament must express, and it deserves, I think, the strongest disapproval and the most active opposition that the profession is capable of giving to it.

The same opinion, I am afraid, must be expressed on the admission of paying patients into hospitals, as now practised at Guy's and St. Thomas's. I have always asserted the necessity of pay hospitals in London; but we must recollect that there are two classes of hospitals in this city, those which, like the one in which we are now assembled, are founded for the cure of the sick only, and those which also undertake the function of teaching medicine. I am myself disposed to reckon the latter function as even superior in public importance to the former. At any rate it is a most important matter, and the present supply of material for clinical teaching is by no means too great for its purpose, more particularly in the hospitals connected with our largest schools. To withdraw any part of the existing beds from clinical instruction, and thus to turn a part of the hospital into a sort of sick hotel, is, in my opinion, a distinct breach of trust. It is true that the scheme is represented at both hospitals as only a temporary and experimental one, but such experiments require most jealous watching; and here, again, the profession should make its voice heard, and should insist that no such innovations as those which I have mentioned should be introduced at our great hospitals without the sanction of the medical staff, and, I think, without consultation with other hospitals. The newly founded Hospitals Association will, if successful, furnish a ready means by which such important public topics can be ventilated; and I hope that it will soon excite the attention and secure the co-operation of medical officers and governors of all the hospitals in London. The necessity for some common action can hardly be denied in the face of changes so radical and so dangerous being made without, so far as we know, any attempt to ascertain the feeling of the profession on the question of their desirability. But I must not detain you longer; my paper will have amply answered its purpose if it has convinced you that the medical care of the poor of London is at present very defective, that many of its defects are matters of urgent importance to ourselves, and that for their reform we must look not to the action of other persons, or of public authorities, but to our own personal vigilance, and our own personal efforts.

VICTORIA AND TASMANIA AS RESORTS FOR CONSUMPTIVES AND PERSONS AFFLICTED WITH LUNG DISEASE.

By J. W. BARRETT, M.B. (Melbourne University.)
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The number of persons suffering from lung disease (chiefly phthisis) who are sent to the colonies for the benefit of their health is and has been for some time past on the increase.

The results ensuing are exceedingly distressing in the main, not so much from any fault of the climate, or rather climates (for there are many in Australia), as from an absence of information on the part of the invalids and their advisers as to the place to go to, and the occupation to be followed when they reach it.

Seeing so many lives, as I believe, sacrificed in this way, I have endeavoured in this paper to give briefly and accurately the necessary information, for the benefit of patients ordered to that country.

Taking, then, as the climate required for persons suffering from lung disease *one not liable to sudden changes; equable to a high degree; not necessarily hot or cold, but preferably temperate*, it remains to be seen to what extent these considerations are satisfied by any of the numerous Australian climates.

For this purpose a brief allusion to geographical and meteorological conditions is necessary.

Of those Colonies which are to the north of the Victorian part of the river Murray, which lies between latitude 36° S. and 34° S., little need be said; for although the inland climates are equable, they are altogether too hot during the long summer to be desirable residences for delicate people. The heat, however, though intense, is throughout almost the whole of Australia very dry, and free evaporation is allowed, otherwise it would be unbearable.

It will then be necessary only to consider the climates of Victoria, Tasmania, and New Zealand, which are all south of the 34th parallel of latitude. Of the last named colony, the information I possess is not based on personal experience, but accounts tend to show that the climate is rather similar to that of Great Britain, and if that be so, it is certainly not a desirable residence for this class of invalids.

Victoria, situated as it is between the 34th and 39th parallels of latitude, possesses unique geographical and meteorological characters. It is the most southern part of the Australian continent, and is irregularly oval in shape, the long dimension running from east to west. It is bounded on the north by a large river, the Murray, and on the south by the Southern Ocean, and is completely divided by a chain of mountains into a northern and a southern area. The northern area, that situated between this great dividing range and the Murray, is practically a wooded plain, traversed by great rivers which run to the Murray. The southern area, that between the dividing range and the ocean, is an irregular slope to the sea.

Now there is a constant heating of the interior of Australia by the sun, and as the ocean stretches from the southern coast to the South Pole in almost unbroken extent, it is easily understood why southerly winds prevail almost constantly along this coast.

These winds are laden with water, which is deposited on the southern area, and on the dividing range, whilst but little reaches the northern area, which is comparatively dry. From time to time, however, either from compensatory or cyclonic causes, fierce northerly winds prevail, blowing therefore from the land to sea. These hot winds are of excessive temperature, and correspond probably to the sirocco. During their continuance, from one to five days, the evaporation is enormous, but sooner or later the cool southerly wind rushes in, and a fall of temperature of as much as 50° Fahr. occurs in a few hours, whilst along the line of neutralisation, rain is often deposited in a tropical manner.

and often damp. *The northern*, equable and dry; in fact, to agriculturists unpleasantly so.

It will then be seen that the one climate is the exact antithesis of the other. In the southern I have known the temperature in the sun fall from 140° Fahr. to 90° Fahr. in two hours. It need hardly be added that such changes usually occur in the summer, when people are wearing light summer clothes, so that the results to them are intensified. Melbourne, which is in the southern climate, corresponds in mean temperature to Nice and Mentone, but in no other climatic conditions is there much correspondence.

In this southern area, and on the range, live the

Sketch Map of Victoria.
The dotted circle shows the limits of the region suitable for consumptive patients.

But this line of neutralisation is neither mathematical nor fixed, and is a broad area which travels from the sea to the range with some velocity, *but it rarely or never crosses the range.*

Thus in Victoria are two distinct climates. *The southern*, variable in the extreme, especially in summer

greater part of the population of Victoria in the cities of Melbourne (population 300,000), Ballarat (population 40,000), Geelong (population 12,000), and other smaller towns with districts. The only city in the northern area is Sandhurst (population 36,000). But there is a large population on the plain,

*

particularly along the Goulburn River, in the so-called Goulburn Valley; Shepparton, Mooroopna, Murchison, Numurkah, and Echuca being towns so situated. But of all the cities in the southern area, none experience such sudden changes as Melbourne, and it will therefore be of use to contrast the relative mortality from phthisis in Melbourne and in the rest of the colony, of which the total population is 800,000.

The Government statist, Mr. Hayter, has been kind enough to furnish me with the following returns, which give *the necessary information.*

Deaths from Phthisis per 10,000 Persons Living In and Outside Melbourne 1861–82.

Year.	Melbourne.	Extra Metropolitan Districts.
1861	23·44	10·63
1862	24·64	8·71
1863	23·71	8·79
1864	20·08	8·70
1865	22·11	8·57
1866	20·42	9·53
1867	21·56	8·87
1868	20·83	7·63
1869	23·87	8·83
1870	22·49	8·56
1871	22·08	7·20
1872	18·69	8·62
1873	20·51	8·77
1874	22·04	8·94
1875	21·46	9·25
1876	22·46	8·28
1877	22·74	9·29
1878	22·62	9·63
1879	21·77	8·45
1880	23·95	8·92
1881	22·71	9·45
1882	23·09	10·03
Means ...	22·15	8·88

That is, the mean mortality from phthisis in Melbourne is 22·15, in the rest of Victoria 8·88.

It has been urged that importations from abroad have swelled the list. But the results are too uniform to be affected by such a comparatively small and variable element. So that evidence from this source is strong as to the influence of the climate of Melbourne in producing phthisis, and in assisting its progress when present, probably by promoting pneumonic attacks. It may be of interest to notice also that phthisis in Victoria is actually increasing amongst males from 20 to 55 years of age, although their numbers have decreased thus—

Year.	Males Living between 20 and 55 years of age.	Deaths.
1861	178,695	337
1871	174,076	384
1881	154,290	433

In England and Wales the death-rate from phthisis from 1866 to 1880 was 22·81 per 10,000 persons living, and is therefore nearly the same as that in Melbourne, but very much greater than that of the rest of Victoria, and, judging from my own experience, infinitely greater than that in the northern area of Victoria.

Further, the death-rate from phthisis in Melbourne is much higher than that in any of the other Australian colonies. But the death-rate from phthisis in the other parts of Victoria is less than the total results of any other colony, save New Zealand, thus—

	Mean No. of Deaths from Phthisis per 10,000 Persons Living.
Melbourne	22·15
Rest of Victoria..	8·88
South Australia..	9·73
New Zealand	8·48
Tasmania	10·21
New South Wales	10·31
Queensland	12·48

All these figures then prove more or less conclusively that the climate of Melbourne has a powerful influence in producing phthisis, and conversely that the climate of the extra-metropolitan districts have a less powerful influence.

The death-rate from phthisis in the northern area has never yet been obtained, but, as has been shown, even when combined with part of that of the southern area (extra-metropolitan) it is only 8·88. If alone it would be in all probability very much smaller, and it seems to me to be in every respect a suitable and desirable climate for consumptives, in fact to all appearance the most perfect existing.

Climate of Tasmania.—Tasmania is an island situated about 250 miles south of Melbourne. It is smaller than Ireland and almost uniformly mountainous. Whilst the climate is warm during parts of the year, still, owing to its situation, the hot winds and the sudden changes which are characteristic of the climate of Melbourne never occur. But, on the other hand, in winter the climate is decidedly cold, and snow, which is quite unknown in Melbourne, falls frequently. Whilst the summer is equable and in every way adapted for consumptives, the winter is decidedly unsuited.

Tasmania, in fact, possesses a bracing climate, better adapted for Indian invalids than any other class, and a sanatorium for soldiers of the Indian army has been established there. The mildness and beauty of the summer induce the Melbourne people to flock over in thousands during the height of the Melbourne summer.

From this sketch it will be seen that all evidence tends to show that the climate of Melbourne is favourable, not only to the production, but to the fatal termination of phthisis cases, and that the most suitable climate for persons affected with lung complaint is that of the northern area of Victoria for the whole year or of Tasmania for the summer.

The low rate of mortality from phthisis in the other colonies simply shows that their climates do not tend to produce phthisis to the same extent that the Melbourne climate does, but it does not follow that they are equally suitable for such sufferers as that of the northern area of Victoria. And, as a matter of fact, they are not; north of about the 35th parallel the temperature is very great and the climate is very trying.

The first part of the question may be regarded as answered, viz., a determination of the most suitable place of resort.

The second, as to the occupation to be followed, can be very shortly and definitely stated.

It is a very great mistake (where possible to avoid it) to exchange sedentary life in England for a similar one in Victoria. The object should be to seek manual or outdoor employment in one of their very varied forms on the sheep or cattle stations.

Such employment is easily forthcoming to the willing, and is both beneficial and agreeable.

The influence on phthisical patients of some mild but purposive occupation is too well known to require comment, and this found is doubly beneficial.

If the summer should prove too severe for an

invalid, he can in 36 hours reach Tasmania and stay there till the heat of midsummer has passed.

It cannot be too strongly insisted that no patients should be sent out who are suffering from advanced phthisis ; they should remain near home. It is for patients in the early stages that the climate of the northern area holds out such advantages.

To recapitulate. The following advice should be given to patients in the early stage of phthisis who wish to try the climate of the colonies of Australia.

(1) That they should, if possible, go out by the fastest and best equipped steamers.

(2) That they should go to Melbourne and at once travel north of the Dividing Range to such places as Sandhurst or anywhere in the Valleys of the Goulburn or Murray.

(3) That they should obtain outdoor employment on a sheep or cattle station, or some similar place.

(4) That, should the summer try them, and the practice of midday rest fail to relieve, they should go to Tasmania for January and February.

That, however, in all cases they must remember that their place of safety lies north of the Great Dividing Range.

POSTURES IN SCHOOL: THEIR INFLUENCE UPON PHYSICAL DEVELOPMENT.[1]

By NOBLE SMITH, F.R.C.S., Ed.

It is an important fact that a large number of individuals become deformed during their growth. In the streets, in schools, and in every public gathering of people we may observe instances of such occurrence. Doubtless some of these deformities may be produced by accidents and by disease, but posture has considerable influence as an exciting cause, and even strong children may grow up crookedly if kept for long periods of time in bad positions. The formation of the skeleton favours the production of deformity when constrained postures are maintained for long periods. The skeleton, although a framework, is unlike the framework of a house or ship, because the latter is a fixture in itself, whereas the former can be moved, one bone upon another, such movement being limited by ligaments, which bind the bones together, and by the muscles. The human framework thus constructed would allow the body to collapse were not the muscles ever ready to control its action, and to maintain its varied postures. The erratic movements of a drunken man show well how much the upright form depends upon control which he should exercise upon his muscles.

To understand how physical development may be influenced by postures, we must consider how the body grows, or rather, how the bones increase in length. If we examine the skeleton of a new-born child, we find the bones but partly ossified. At birth the ends of all the long bones of the limbs remain in their original cartilaginous state, the shafts alone are ossified. It may be realised how readily these ends of bone are moulded by unequal pressure, how growth in one direction may be checked while it proceeds unhindered in another. In early life ossific particles develop in these cartilage ends of bones and gradually grow, but it is not till puberty, or later, that the bones become complete. For instance, in the thigh bone the head is not united to the shaft until the eighteenth year of life ; the lower end until the twentieth. In the leg bones the heads are not united to the shafts until the twenty-fifth year of life ; the lower ends until the twentieth. The spine, which in respect to our subject is the most important part of the human skeleton, is formed of twenty-six bones placed one above another, but each is separated from its neighbours by elastic discs of permanent fibro-cartilage. Each of these bones, which together form the spine, are in the first place, like the other bones, but cartilage, and they develop by the growth of several osseous points, which gradually unite, but do not terminate their full development until about the thirtieth year of life. The ligaments which join the bones together in the skeleton are weak in childhood. The muscles also are less able to support the joints in early life than later. Thus it is seen that during youth the frame is fitted for free movement, for the activity so natural to the young, but is not suited for sustaining long the body weight in any one position. In active movements pressure of one bone upon another in any one direction is but of short duration, and this activity is natural to the young. Young children lounge about, and play, and crawl upon the floor, and when in health are seldom quiet, except in sleep.

If natural activity is checked—for instance, if a child is made to walk or sit, when it would rather play upon the floor—irregularities of growth may be produced. Walking, though movement, is not natural activity, the body weight is thrown too much upon the legs. The arches of the feet give way, and flat feet are produced ; the ankle joints get weak ; the knees succumb to frequent pressure, and bend towards the centre of the body, knock-knees resulting. Later in life the child may suffer from attempts on the part of the anxious mother, nurse, or governess at making it "sit up." Now this enforced "sitting up" is probably the commonest cause of spinal curvatures. The child when left alone will rest itself in various positions, either by leaning back or to one side, or, best of all, when working at a desk, will rest its head upon its hands with elbows on the desk, and thus relieve the back from undue strain. How many governesses or school-mistresses would tolerate such so-called "careless" habits? Probably none. They try to keep their pupils straight, but then their plan defeats its object, and they produce the very evils that they are attempting to avoid. Let me explain the facts on which I base these views. When sitting upright, and without a back rest, the spine is held erect by means of dorsal muscles ; these cannot act for long, they soon get tired, and then the spine subsides upon itself.

Let any one attempt to hold his arm erect above his head for long ; he will soon tire, the arm will fall, because its muscles get exhausted. The muscles of the back are also soon fatigued, and the result is that the spine is either bowed out backwards or subsides laterally. If the child is weak or careless the spine will bulge out backwards, and a "round back" will be produced. The back, however, may be held apparently upright with a very small amount of muscular exertion by allowing the column to subside laterally, until the joints between the spinal bones limit their further flexion. Under such circumstances the equilibrium of the body is maintained by a double curvature, and the spine assumes the form of an attenuated S. Whether the spine is bowed out backwards or bent in lateral curves, it happens that at the concavity of the bends, where there is excess of pressure, the growth is much restricted, whereas at the convexity, where the pressure is less than natural, development takes place quite freely. Growth thus occurs unequally, and in course of time each bone which helps to make the curves assumes a wedge-like form.

It is a well-known fact that girls are more often affected with crooked spines than boys, the proportion of the former to the latter being six or seven to one. In considering the reasons for this preponder-

[1] Read at the Conference at the International Health Exhibition, on Thursday, July 31st, 1884.

ance of the deformity among girls, it is necessary to study the differences in the lives of the young of the two sexes. From their infancy upwards girls are discouraged from playing and romping. The games they *are* allowed to play do not require so much freedom of action as do those of boys. As girls grow up more attention is given to their deportment, greater attempts are made to induce them to "sit up," whether at lessons or at meals. In short, all the factors in the formation of curvatures of the spine occur to a much greater extent with girls than they do with boys.

It is a false system to attempt to refine young girls by restraining their natural freedom of movement. It is this false process which does so much to encourage the production of deformity. Long walks in precise and stately file produce a harmful strain upon the spine and legs, whereas free movement in such games as cricket and lawn tennis afford most healthful exercise. After a long, uninteresting, formal walk, the girl returns to work, the muscles of the back are then fatigued from prolonged use in one direction, and when she sits she soon allows her back to fall into a curved position. Marching in file is very necessary work for soldiers, it may be suitable work for convicts, but it is not a proper routine exercise for girls. Overwork, by causing general fatigue, impairs the pupil's health, so that her muscles and other tissues become less able than in health to sustain the body weight. Girls seem to be very easily induced to do a large amount of sedentary work, and they readily fall into the habit of neglecting physical exercise. It is therefore most important that their studies should be carefully arranged, so that a due amount of active recreation is ensured. Girls are said to be more restless as regards their postures than boys; but is it not that the natural restlessness of young people is more noticed in the case of girls, and more often checked?

We have seen that if any one posture is maintained repeatedly for long periods of time without the body being perfectly at rest, the normal development of the skeleton will be interfered with. The periods which may be called long vary in accordance with the particular posture adopted. That which is a long period for one position is a short time for another. Then again, the periods which may be termed long, depend upon the health and natural strength of the child. A feeling of fatigue is a certain indication that a change of posture is required. I will now analyse a few typical postures. *Standing upright* for too long fatigues and exhausts the muscles, and they are thus weakened. The result is a gradually lessened ability to prevent the body falling into bad postures at other times. Standing with both feet close together is a very fatiguing attitude. *Standing upon one leg* places the base of the back in an oblique position, and thus causes lateral curvature of the spine. *Standing and supporting the body with the hands* upon a chair or with the back against a wall, is better than not having any extraneous support at all, but it is likely to produce roundness of the back. *Standing with the arms crossed* also makes the back round. *Standing* may produce flat feet and also knock-knees. In the latter case the weight falls chiefly on the outer side of the joints, and they gradually give way towards the central line of the body. *Sitting with the arms resting upon too low a table* produces a round back, and if the right hand is used for writing, drawing, &c., the shoulder of the right side is raised more than that of the left, and the spine is placed in a laterally curved position. *Sitting with the arms evenly supported on a desk*, or with the elbows upon a sufficiently high desk, and the head resting upon the hands, are fairly good postures. *Sitting in a chair with a suitable back rest* is a very good position, but it is quite possible for the back to be made "round" while in this posture by the pupil bending forwards frequently, and thus contracting the chest. *Sitting with the knees close side by side* is a very fatiguing attitude, but I believe it is not considered elegant for a young lady to sit otherwise, unless she crosses the knees, and crossing the knees is also a bad position, and necessitates the spine being placed crookedly. *Recumbency in bed* even may involve the assumption of bad postures. The body may be bent, the knees and head approximated, causing a rounded back. The pillow may be too high so that the spine is curved laterally in sleeping on the side, or posteriorly in sleeping on the back.

The above remarks may be easily applied to other positions than those described, but it is perhaps desirable to refer to playing upon the piano. This is necessarily a very fatiguing posture, even when the pupil uses a well-constructed seat which supports the back, and therefore the time devoted to this practice should for weak children be of but short duration. I have mentioned that round backs are produced by several positions. The appearance of the figure thus caused is perhaps the least of the bad results of this deformity. A round back involves the production of a flattened chest, and a constricted space for the lungs, heart, and stomach. A long paper might be written upon this subject alone, regarding the indigestion, the impeded circulation, and the lessened capacity for respiration thus engendered. I will here only refer to the lessened capacity for respiration. We are indebted to the late Dr. Hutchinson for almost exhaustive researches upon the movements of the chest, and the relation between the breathing powers and the health. Among a host of valuable facts which he published was that which showed a certain standard of what he called VITAL CAPACITY for every individual of a similar height, weight, age, and sex. The VITAL CAPACITY of an individual is indicated by the volume of air which he is able to expel forcibly from his lungs after a full inspiration. At the middle period of life the vital capacity *necessary for health* of a man measuring 5 feet high, is 174 cubic inches, while for a man 5 feet 10 inches, it is 254 cubic inches. These measurements never vary in perfect health, and, therefore, when the amount of respiratory power as thus indicated is diminished, it proves the existence of either distinct disease, or, to say the least, it shows a lessened vitality. Dr. Hutchinson also proved, and in fact it is a matter of general observation among medical men, that in people with round backs, the vital capacity is very much lessened, and it seems probable that individuals thus afflicted are more liable to become consumptive than others, and have less power to resist an attack of ordinary lung disease. We, therefore, have excellent reasons for doing all we can to prevent the development of round backs. I have found that by improving the posture an increase in the circumference of the chest in expansion of from 1 to 2 inches has taken place in a few months.

Standing upon one leg is likely to cause curvature of the spine by placing the pelvis in an oblique position, but I must mention that even standing with both legs upright may have a similar effect in many individuals. I refer to people in whom one of the legs is shorter than the other. It seems that such a condition exists much more often than was formerly believed. The researches of Drs. Hunt, Cox, Wright, and Roberts in America, and of Dr. Garson in London, show that equality in length of the lower limbs is an exceptional condition. In fifty-four persons examined by Dr. Cox, only six possessed limbs of equal length—the variations ranging from $\frac{1}{8}$th to $\frac{7}{8}$ths of an inch. Dr. Garson carefully measured seventy skeletons at the Royal College of Surgeons, and in only 10 per cent. of these cases were the limbs equal in length. The left limb

was found longer than the right in thirty-eight cases (54·3 per cent.). The right was the longest in twenty-five cases (35·8 per cent.). The amount of inequality varied from $\frac{1}{25}$th to half an inch. I may mention that of fifty-four cases of curvature of the spine ; in twenty-four, one or other leg was found to be shorter than the other ; and I have observed an important fact which probably shows that in these twenty-four cases the deformity was dependent upon the postures produced by the inequality in the length of the legs. This fact is, that in twenty-one out of the twenty-four the short leg was the left, causing a lumbar curve to the left ; whereas, in the three cases in which the short leg was the right, the lumbar curve was also to the right ; in all cases, there was a compensating dorsal curve. In the other thirty cases (in which no inequality of the legs existed) the exciting causes seem to have been bad postures long continued, and frequently repeated.

And now let me add a few words with regard to the *avoidance* of bad postures. In the first place, I must urge most emphatically, that in respect to girls, and they are girls who chiefly suffer, it will be utterly useless to attempt to remedy or prevent the evils I have referred to simply by laying down rules regarding postures. Rules may be devised, and they have their value, but so long as parents and guardians entertain the idea that energetic action in play, and the adoption of easy postures at work, are unladylike and unbecoming in a girl, so long will weak and deformed backs, legs, and feet, and the want of good health, which are thereby engendered, remain as common as they are in the present day. Ladies who have the management of schools and collegiate establishments, seem generally to be inclined to entertain more liberal views upon these matters now than formerly, but their endeavours to improve the physical condition of their pupils are often disapproved of by the parents. At a large establishment at Ealing, where the advantages of free exercise are fully appreciated by the lady who has the immediate direction of the pupils, stately walks have been almost entirely abolished, and out-door games substituted. Of all these games, cricket is approved of by the girls above the others, and the enthusiasm with regard to this excellent game is very great. However, in some cases, the parents have raised objections to cricket, as being too unladylike for their daughters, and stool-ball has been recommended as a substitute. But such a game is far less beneficial than cricket ; in fact, it is the very freedom and variety of movement, the energy displayed at one moment, the temporary easy repose at another ; and also the interest which it excites among the players, which constitutes alike its excellency as an exercise from a hygienic point of view, and its unladylike nature from the point of view of the fashionable mother. Tennis, and fives, and many other games may have their place among the recreations of girls. Swimming has a great influence in developing the muscles of the spine, and in straightening a round back, providing, of course, that there is no lateral curvature. Drill and gymnastics have their advantages, but they should be carried out in moderation, and be more carefully supervised than ordinary games. They are very useful in bad weather, when out-door games are less practicable. The Swedish systems of drill and gymnastics have become rather popular of late, and are valuable as means of exercise, but should not take the place of games.

With regard to postures in school. It is very desirable that children should be allowed much freedom of choice regarding their change of position. Standing in class should be avoided as much as possible, in some schools it is entirely abandoned. If the pupils are to stand at all they should not be obliged to place their feet close together, because, by so doing the basis of support is made too small, and a greater effort has to be made to maintain the equilibrium of the body than if the feet are slightly separated. Standing upon one leg may be permitted, but each leg should be used alternately to support the body. We find in this exhibition many specimens of seats and desks specially made to allow school work to be done by the pupils in good postures. The fault which I have chiefly noticed in schools where these special desks and seats are used is, that the desks are too low, and that consequently the children are obliged to stoop to do their work. The seat should be sufficiently high to allow room for the legs to move freely or rest naturally on a foot-board. The back should be upright with a projection to fit the back of the pupil above the hips. It is best that the back of the seat should rest the shoulders whilst the pupil is sitting up reading. The seat should support nearly the whole thigh. The edge of the desk should reach to within an inch of the body of the pupil when he is sitting upright. It should be sufficiently high to allow the pupil to write without or with a minimum of stooping, the eyes being about 14 inches from the work. The desks should slope 20° for writing and 40° for reading. The light should come from the left hand of the pupil, so that it falls upon his work while he remains in a good posture. Writing as usually taught is the occupation at which probably the body is most frequently placed in bad positions, but if upright writing were substituted for the present plan of sloped writing, the body might very easily be kept also in an upright posture. This plan of upright writing is most valuable, and its adoption in schools would do much to prevent the formation of curved spines. I might describe the influence of posture in other occupations of school life, but time forbids.

In conclusion, I will only add that if any one entertains a doubt as to the influence of the bad postures I have referred to in the production of deformity, let him consider the well established fact, that even in later life, when the bones are entirely ossified, the posture of the body has a material influence upon the form. Those who must stand for many hours together become flat-footed and knock-kneed, waiters in public restaurants are good examples of this fact. The seamstress, the clerk, the writer and engraver show by their rounded backs and narrow chests, how long-continued posture acts on *them*, and many trades show similar results ; upon the other hand we find the country yokel with drooping shoulders and slouching gait drilled to become a well formed man. Much may be done to change the form, even in adult life, but if the body is deformed in childhood by injudicious postures, and the health ruined by overwork, then are produced effects which no amount of care in after life can quite remove.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

SO-CALLED "HOSPITAL GANGRENE" OCCURRING IN A PRIVATE DWELLING BEFORE ADMISSION INTO HOSPITAL.

(Under the care of Mr. BARKER.)

(For the notes of this case we are indebted to Messrs. A. Drew, and J. Maughan, House Surgeons.)

The subjoined case as an instance of a bad and fatal attack of so-called "hospital gangrene" in a private dwelling, and which had made extensive ravages before admission into hospital, seems to claim some special notice. The origin of the disease, without any crowding

together of persons suffering from wounds, and where, if the patient is to be credited, the surrounding conditions were not peculiarly bad, is also noteworthy.

J. J. R., æt. 38, was admitted into University College Hospital last April with an ulcer of the left leg. His past history included long standing alcoholism, chancres, without secondary symptoms, several attacks of gonorrhœa and privation. Ten years ago a small scab appeared on his left leg, and this, when scratched, discharged and dried up again. Gradually it got bigger, but improvement followed and it had ceased to trouble him twelve months ago.

In April, 1883, the leg was struck by a cricket ball; ulceration was re-awakened and this continued till the day of his death. He has been in the habit of dressing the ulcer with "purified lard."

On April 3rd, 1884, he felt a burning pain in the leg and when he looked at it was astonished to see the ulcer twice as big as it had been twelve hours previously, when he had last dressed it with the lard. The skin around it was red, hot, and tender, and he also observed a bad smell and a covering over the sore "just like mud."

Two days afterwards he got "the shivers," and remained in bed until admitted under the care of Mr. Barker on the 12th of April, the ulcer having increased enormously in the meantime. The left hip and knee joints were then flexed and the foot everted, a condition maintained throughout his illness. The ulcer was found occupying the lower third of the leg, and measuring seven inches in both diameters. A black border surrounded it and the skin beyond this margin was red and tender. The edges were irregular, thick, and indurated at one spot, thin and overlapping at another. The floor was covered entirely by black and adherent or dirty greenish-yellow sloughs overlying the muscles which could be seen to move below.

Patient was admitted into a private ward and a few hours afterwards (the case being clearly one of hospital gangrene) was etherised with a view to thorough cauterisation of the wound. Mr. Barker then, with the Paquelin cautery, cut a groove about half-an-inch deep all round the margin, and cauterised the floor, detaching the sloughs and charring the underlying tissues. The leg was dressed with iodoform and salicylic wool. He was put on spoon diet, and extra strong beef tea, and he was ordered four grains of ammon. carb. three times a day.

Next day the discharge was profuse, and very fœtid; he was ordered six ounces of brandy per diem.

On the 15th his foot became œdematous. Two days afterwards the muscles of his face began to twitch, and his hands were unsteady when extended. He complained of pain while the leg was being dressed on the 19th. The inflamed skin around the ulcer was painted with glycerine and belladonna.

Late in the evening of the 21st he had a morphia injection, on account of his restlessness and wandering delirium at nights.

On the 27th there was clearly mapped out an area of œdematous granulation tissue five inches by three inches on the outer part of the ulcer. This was covered by a dull grey, opaque film, firmly adherent to the substrata, the rest of the ulcer being much improved.

During the preceding week his temperature had assumed somewhat of the hectic type, never, however, rising above 102·8°. He was ordered two grains of quinine every four hours and a bottle of Burgundy a day.

On the 28th this grey elevated area was dabbed over with a (gr. v. ad ℥ i.) solution of corrosive sublimate, and iodoform was dusted over the whole ulcer, iodoform wool being applied well round the leg.

Two hours afterwards the pain was so severe that he was ordered a full dose of opium, and this was repeated during the night.

Next day his pulse was 120, small and compressible, his temperature 102·8°, and his leg apparently unimproved by the corrosive solution. Mr. Barker again thoroughly cauterised the whole ulcer with the actual cautery. A dry antiseptic dressing was applied, and ♏ x. Tinct. of Opii ordered every six hours.

On the next day the discharge was abundant, purulent, and extremely disagreeable.

On the 2nd of May the tibia could be felt by a probe passed through a cleft in the floor, and the tissues exposed by the removal of sloughs presented a dusky bluish red colour.

On the 3rd his brandy was increased to eight ounces and Mr. Barker again cauterised the leg. This time it was dressed with carbolic oil and salicylic wool. It was on this day, just before the operation, that some dippings were taken from the dirty yellow pus, and Mr. Barker was successful in staining them, and demonstrating bacilli and micrococci in abundance. The prevailing bacillus closely resembled the bacillus tuberculosis.

On the 6th the patient's temperature rose to 103°, but soon fell again. He was ordered ten ounces of special port per diem. His nocturnal delirium increased, until it became necessary to tie him down to the bed.

On May 8th sordes appeared on the lips and teeth, the tongue was dry, and the breath offensive. He sighed frequently, and passed his urine unconsciously. On the same day a large quantity of sloughs came away from the ulcer, exposing a considerable area of bare bone at the upper part. Thick, curdled pus welled up when pressure was directed to the upper and outer border. He was ordered one-sixteenth of a grain of Hydrarg. Perchlor. three times a day. The same evening his temperature rose to 103·4°, and the following morning to 104·2°. In four hours it had fallen to 100°. The quinine was discontinued when the perchloride of mercury was ordered.

On the 10th some of the discharge was examined and bacilli again found. Blood taken from the unhealthy granulations also contained bacilli. The leg was again cauterised, after being well washed in (1 in 20) carbolic lotion. The burrowing abscess on the outer side of the tibia was opened up. The parts were then bathed with (1 in 1,000) solution of corrosive sublimate, and afterwards with (1 in 20) carbolic. A Listerian dressing was then applied.

On the 11th and 12th patient was almost constantly delirious, and on the 13th he exhibited the following symptoms:—Marked subsultus, picking at the bedclothes; tongue dry, fissured, and brown; breath very offensive; pulse 136, weak and irregular, and anorexia. Nutrient enemata were ordered every four hours. On the same day the leg was dressed, owing to the discharge coming through. The pus was profuse, dark yellow, and horribly stinking. The ulcer was washed in (1 in 20) carbolic, and a boracic fomentation applied.

Patient gradually sank, and on the morning of the 15th he died.

Autopsy.—No visceral disease was found, except a little fatty degeneration of the cortex of each kidney.

On turning up the soft parts of the leg the tissues were found separated from the tibia for one-quarter of the length of the shaft above the edge of the ulcer. These tissues immediately surrounding the bone were converted into a dirty green gelatinous slough, and this extended into the surrounding muscle for about one-third of an inch. There was slight formation of new bone on the periosteum of the posterior surface of the tibia, just above the internal malleolus, also on the inner border of the fibula, which, however, the gangrene did not reach.

The knee-joint was normal.

The glands in the groin were small and reddish on section.

Medical Times and Gazette.

SATURDAY, AUGUST 9, 1884.

THE cholera is abating—by lysis, like the third week of a typhoid temperature—at Marseilles and Toulon, and it shows no signs as yet of making a rapid advance northwards, but it still prevails to a considerable extent in many towns in the South of France. Deaths are daily occurring at Arles, at Aix en Provence—not Aix-les-Bains, which is hundreds of miles away, as the doctors of that popular resort of rheumatics have anxiously pointed out—at Voguè, in Ardèche, and in several towns in Italy. Fears are expressed that a recrudescence of the epidemic may be caused by the premature return of *emigrés* to Toulon and Marseilles, both of which, according to the testimony of recent visitors, are still in a very unsatisfactory hygienic condition. M. Clémenceau, who has recently been on a tour of inspection, detailed his experiences in the infected towns to the French Chamber on Saturday. Drains, he said, were in many cases defective; water was scarce; the sewage was not carried to a sufficient distance; and at Toulon the state of the crowded and unhealthy dwellings surpassed anything in London or Paris. Legislation on this point was urgent, and he only wished that the Republican Cabinet were as Radical as were Her Majesty's Ministers in England. Marseilles was being ruined by marine quarantines, which were a form of panic; and there were prefects who even quarantined furniture. M. Clémenceau sharply criticised the inaction of the Government, and laughed at the three Ministers who, when they left Toulon, had two eucalyptus trees placed in the train. He urged that the funds devoted to colonial aggrandisement might be better employed in sanitary measures in French ports, which otherwise might lose their trade. M. Paul Bert concurred in M. Clémenceau's criticisms, and moved a resolution condemning the inaction of the Government, which, however, was not carried.

THE London Correspondent of the *New York Times*, who has just returned after visiting Marseilles and Toulon, has painted the sanitary state of these ports in colours far darker than those of M. Clémenceau. Every one who reads his statement, as published in Wednesday's *Pall Mall Gazette*, will wonder that the death-roll, which according to the latest official report has numbered 2,200 since the beginning of the epidemic, has not been thrice as long. This sanitary neglect seems all the more unpardonable now that it has come out that there was a case of undoubted cholera in Marseilles last year, the existence of which was hushed up by the Mayor. Meanwhile there has as yet been no relaxation of the futile quarantine arrangements on the Spanish and Italian frontiers. The Italians appear to be coming to their senses, and the papers are drawing attention to the uselessness of quarantine and cordons. But the Spaniards are congratulating themselves that their immunity thus far has been entirely due to their precautions on the frontier, and they are still persevering in the most ridiculous observances even where—as at Gibraltar—no foe threatens. All the North of Europe is still open and likely to remain so, though if you are going to stay in Holland, you must leave your dirty linen at the frontier to be washed and disinfected, and sent on to you at the earliest opportunity.

IN addition to Dr. Koch, M. Clémenceau and the correspondent of the *New York Times*, Marseilles and Toulon have attracted to them for the purposes of investigation two well-known authorities, Baron Mundy, of Vienna, and Dr. Dutrieux Bey, of Alexandria. The latter will be remembered for the able report that he drew up on the Egyptian epidemic of last year, and the account of his present investigations, which he intends to lay before the Paris Academy of Medicine and the International Congress at Copenhagen, will be looked forward to with great interest. In the case of the Egyptian outbreak, Dr. Dutrieux concurred in the views arrived at by Sir Guyer Hunter, that cholera had been endemic in the country for a considerable period before it took on an epidemic character, and his present object is to discover whether the same is true of the epidemic in the South of France. It is said that he has already hunted up cases in which choleraic symptoms occurred so long ago as January last.

THERE has been as yet no case of true Asiatic cholera in England, though it is said that a case occurred last week in Lambeth which was seen by a well-known Indian authority and declared indistinguishable from it. The College of Physicians has published a somewhat colourless memorandum on the subject, which we print elsewhere, and active measures of precautions have been taken at all the ports. Dr. de Chaumont, after setting things in order at Portsmouth and Southampton, has paid a visit of inspection to the Port of London, under an order from the Local Government Board, and is making an exhaustive enquiry into the arrangements for preventing the ingress of cholera by means of the Thames shipping. Two vessels have in the course of the week appeared off Cardiff, and one has arrived in the Mersey, flying the yellow flag. All were ordered to the quarantine station for observation and disinfection, and so far there has been no sign of any infection having spread from them.

THE British Medical Association has just completed one of the most successful annual meetings ever held in its history. Belfast has been visited for the first time, and the *éclat* with which everything connected with the meeting has passed off has astonished those who had expected most, and even taken by surprise some of the oldest congress-trotters in the association. In last week's issue we gave a brief review of the most important addresses, which were certainly up to the level of, if not above, those of former years. The sections, with one exception, displayed no very marked departure from the routine of other years; though the amount and character of the work, and the standing and

ability of the speakers were certainly such as to do credit to the association as one of the chief medical organisations of the world. The weather, except for the evening of Wednesday, was everything hat could be desired, and this, though an apparently trivial consideration, is of great importance, when we consider that many at least of those taking part in this annual gathering have educated themselves into regarding it as one of the holidays of their busy professional life, a statement especially true of the more active and restless brains in the association. Amongst our profession, as amongst all bodies of intellectual men, it will be found that—

> Some place their bliss in action, some in ease ;
> *Those* call it pleasure, and contentment *these*.

It is in the former class almost exclusively that the men who take their holiday at the British Medical Association Annual Meeting will be found. Those who seek for contentment in their holiday change do not trouble themselves with the ceaseless activity and unrest of the annual reunion and its accompanying festivities. The profession is, however, always represented well otherwise ; and to the student of character it can be safely said that no collection of men affords such splendid scope for study, all classes being present, from the listless pleasure seeker to the eager searcher after truth. At the Belfast Meeting there may have been the usual percentage, and we are happy to say it is a small one, of young men who invariably make the most of some shallow little knowledge to gain notoriety and satiate their appetite for being reckoned amongst the lions of the moment. The solid lasting work done by the association proves that such men are the rare exceptions, and the reverence and respect universally paid to those leaders of the profession who visit the assembly, speaks volumes for the good sense of the profession at large.

It has been often said that the weakest point in connection with the meeting of the British Medical Association has been the meagre supply of the fruits of pure scientific research ; we are happy to be able to chronicle a new departure in this direction. In reviewing the career of scientific medicine during the last quarter of a century, perhaps there is nothing which strikes one so much as the backwardness of the department which one would expect to receive the greatest attention and elucidation. We speak of the knowledge, or rather of the ignorance, of the physiological and therapeutic actions of remedies. This unprogressive condition of pharmacology and therapeutics, when contrasted with the rapid strides recently made in the departments of Pathology, Medicine, and Surgery, is evidently due to a number of constantly acting forces, not the least of which is the difficulty caused by the operations of the Vivisection Act, which has so unmistakably embarrassed original work in this country. The impetus which improved implements have given to the study of microscopic anatomy and physical diagnosis has not been an altogether unmixed good. How often can we trace the death-knell to all impartial scientific use of time-honoured remedies from the moment that an observer has looked down a microscope and realised the existence of a gross lesion such as is seen in locomotor ataxy or tuberculosis! The teaching in many of our large schools when viewed from this standpoint is as eminently unscientific as it is productive of scepticism of the worst kind. Such unbelief is no doubt preferable to the blind faith which accepts therapeutic statements on the flimsiest evidence, but it is carried too far by some of the most *popular* teachers of our time, who will spend a couple of hours in the wards with the practitioners of the next generation discussing the causation, diagnosis, and pathology of some complicated case, and dismissing the treatment in a single sentence. The profession doubtless will hail with delight the first signs of the pendulum swinging in the opposite direction, and the president's address affords ample food for reflection to those who have neglected the study of rational treatment and screened their ignorance behind a learned pathology.

Hence it is that we welcome the creation of the new Section of Pharmacology and Therapeutics as one of the happy signs of a brighter and more earnest attempt to make this department keep pace with the swift advancement of our knowledge in other directions. Those who are for the time answerable for the management of the affairs of the association have shown a wise discretion in establishing a department which will not be presided over or directed by those whose daily duty is the interpretation of anatomical or pathological facts, or whose *sole* training and experience has been derived from the action of remedies upon diseased organisms, a result which has hitherto flowed from the custom of consigning all pharmacological or therapeutic contributions to the Sections of Anatomy or Medicine. It is true that the number of workers in this special department is small, and there may be some difficulty in keeping up, year by year, a continuously increasing supply of results such as will do credit to the association, but that is only a reason why the greatest machine of our professional day, or any other day, should try and consolidate its ranks by inducing scientific workers from every province of the great region of pure medicine to enter and labour within its circle. The success of the new section proves that a growing need is being felt, and that there is an ardent desire for a more enlightened system of therapeutics ; and while we congratulate the association upon keeping in advance of the time, we hope that the work done to lift treatment out of the slough of empiricism and neglect will always maintain the high standard which has so markedly characterised the opening of the department.

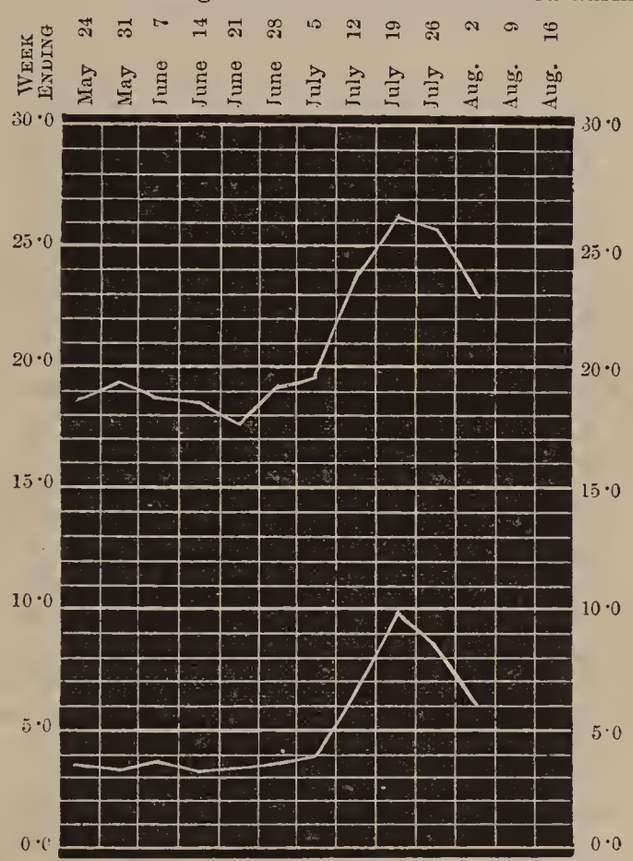
It was high time for the association to think of taking some steps to stamp out one of the greatest anomalies in connection with medicines—the Patent Medicines Act, which too often has been used by unscrupulous impostors to deceive their dupes by the presence of an apparent Government sanction to their dishonest nostrums. The anomaly of a new Pharmacopœia being produced for the use of practitioners of this country without their even having a voice in its revision, is, we hope, one of the things of the past, and

we cannot see a more useful or necessary direction in which to turn the great power of the organisation than in claiming a right to have the general profession represented upon the Pharmacopœia Committee. These matters engrossed the attention of the new section, and steps were taken to refer them to the central executive body, who, we hope, will not allow them to be lost sight of.

While there is hardly any subject in medicine, surgery, or the allied branches which would not give rise to considerable difference of opinion upon its discussion, we think that if we turn from the scientific and practical questions submitted at the association to the general features of the purely pleasurable aspect of the meeting, there we shall find only one idea prevailing amongst every class of members visiting Belfast. The universal verdict was one of complete and whole-hearted appreciation of the success of every undertaking provided for the comfort and pleasure of the visitors. The *conversazione* was one of the most enjoyable reunions ever witnessed by the members; the annual dinner was a very decided success, and the reception given by the mayor of the town was not allowed to fall behind in any detail. Saturday, devoted to excursions, found about 300 members of the association winding up the hard week's work by an examination of the wonderful geological formation of the Giant's Causeway. This excursion afforded a rare day's pleasure, and fitly brought to a close a meeting which will long remain green in the memory of every member of the profession who visited the commercial capital of Ireland.

Dr. Cameron's address in the Section of Public Medicine, at Belfast, on "The Cholera Microbe, and how to meet it," contained a very clear statement of how much, or rather how little, our ideas concerning cholera should be modified by Dr. Koch's recent discovery. Very little, says Dr. Cameron, of a definite or satisfactory character is known about the so-called cholera-bacillus. Dr. Klein has discovered a similar bacillus in an epidemic of diarrhœa in England; and it appears certain that it is unsafe to establish practical conclusions, and especially, as Dr. Cameron points out, *negative* practical conclusions, on the unsupported premisses arrived at by Dr. Koch's investigations. We are obviously, therefore, not justified in acting on Koch's conclusion that the cholera poison can only harm us when it reaches us moist through the channel of the stomach. Dr. Cameron insisted that in order to establish the microbic origin of a disease as a scientific fact, four things were necessary:—(1) Something that may be a microbe must be found in the blood or tissues in every case of the disease; (2) it must be shown by artificial cultivation to be a microbe, possessing its vitality apart from the organism of the animal in which it lives; (3) when purified by such cultivation, it must be capable, if introduced into the systems of animals in which it can develop, of reproducing the particular disease; (4) before the results can be admitted as scientific facts they must be corroborated by independent observers. These are admitted to be stringent tests; but they have been complied with in the case of cattle anthrax, fowl cholera, and tubercle. In the case of cholera, however, not one of the four requirements has as yet been met, and we agree with Dr. Cameron that, while admitting the importance of the discoveries, we are bound, in the interests of scientific medicine, to reserve our judgment, and to refuse to act upon them as if they were established facts. Dr. Cameron's lecture is a very wholesome protest against the premature acceptance and popularisation of an inchoate investigation as a finished and fruitful scientific conquest.

The death-rate of London fell last week, from 25·9 to 22·9 per 1,000, but the number of deaths registered was as many as 83 above the average. Of this excess only 26 are accounted for by the unusual mortality of zymotic diseases, the death-roll from this class of disease amounting last week to 484, whereas the average is 458. The mortality from diarrhœa, which caused such a high death-rate to be recorded during



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London in each of the past eleven weeks.

the two preceding weeks, has fallen considerably for the time, the deaths from this disease last week being only 30 above the average. Both the deaths from, and the admissions to hospital for, small-pox have shown a very satisfactory falling off, the former last week numbering 11, and the latter 66. Seven weeks ago these numbers were respectively 59 and 354. In many of the provincial towns diarrhœa is still very fatal, the annual death-rate per 1,000 from this cause alone being 12·6 in Preston, 11·0 in Leicester, 7·1 in Salford, 6·9 in Norwich, and 6·1 in Nottingham.

The Conference on School Hygiene was continued at the Health Exhibition on Thursday, the 31st ult., the subject for that day being the Construction and Arrange-

ments of School Buildings. Mr. Murgatroyd, of Manchester, who has had considerable experience in the erection of large middle-class and high schools, contributed a most admirable paper describing the plans he has usually followed. Dr. Clement Dukes, of Rugby School, next discussed the question of School Dormitories. He complained that in many schools the space allowed was actually less than that fixed by law for convicts and paupers. The cubicle system he condemned in the strongest terms on every consideration of health and morality. Mr. Noble Smith, in a paper on the influence of Posture on the Development of the Body, which we publish in full in another column, attributed the largest proportion of deformities and of cases of defective eyesight to the faulty attitudes induced by badly constructed seats and desks, together with want of sufficient and proper exercise, especially among girls. In his own practice he found the number of girls suffering from one or other form of curvature of the spine to be to that of boys as eight to one.

On Friday the subject of Games and Athletics was to have been opened by the Rev. E. Warre and the Hon. E. Lyttelton, but unforeseen circumstances prevented the attendance of either. Dr. Walter Fergus, of Marlborough College, read a paper on the Development of Boys, with special reference to games, among which he gave the place of honour to football, maintaining that the few accidents that did occur were mostly attributable to breach of the rules. Mr. Noble Smith preferred cricket, and stated that in some high schools the girls entered into this game with fully as much enthusiasm as boys. Indeed, he maintained that there was no game, with the exception perhaps of football, now played by boys which might not be practised by girls with unmixed benefit to body, mind, and manners. Mr. Roman von Schweitzer, the veteran Director of the German Turnverein in London, which has done so much to popularise systematic gymnastics in this country, traced, in a wonderfully clever and amusing manner, the progress of gymnastics from the earliest period of Greek history to the present day, and maintained the value of the methodical exercise on scientific principles of every group of muscles. The aim of gymnastics was, he said, the attainment of the highest possible development of every part in perfect symmetry and harmony, and so potent a means demanded intelligent supervision and direction in the care of the young, not to drive the learners to their task, but to check their incautious zeal and ambition. He was far from wishing to disparage games, for until he had passed his sixteenth year he was an enthusiastic football player; but each had its use, and gymnastics could be followed by the young men of our large cities at seasons and hours when outdoor games could not. He described the uses of each kind of exercise, and their adaptation to the capabilities of men, boys, and girls respectively. The gymnast, he said, was less liable to accidents than other men, and, conscious of his powers, was self-possessed and fearless in the hour of danger. The inability of most women to swim, and of all to climb, rendered them helpless in shipwrecks and fires.

Sir James Paget, Mr. Noble Smith, Dr. Roth, Mr. Holmes, and others joined in the discussion, the two last-named urging the claims of Ling's system with few or no apparatus. These comparisons Mr. von Schweitzer deprecated. Every system was good, he believed, if conscientiously and intelligently carried out; but he maintained that the German included all that was really valuable in the Swedish, and it had in every essential feature been adopted in almost all the armies of Europe, not excepting that of France. Dr. Willoughby read a paper describing the Ferien Colonies, or Holiday Colonies for the children of the poor, which are now formed in all the principal towns of Germany and Switzerland. The weakly children, recommended by the teachers and selected by a medical examination, are sent out for a whole month into the country during the summer holidays, in parties not exceeding fifteen or twenty, in charge of a picked teacher of the same sex, to a farmhouse or other healthy locality in the mountains or forests, where, under the influence of life in the open air, liberal diet, and association with a genial and sympathetic teacher, they rapidly exhibit an improvement in bodily health, intelligence, and manners, which is not lost even after the end of a year or two spent amid the unfavourable surroundings of their homes. He considered this plan very superior to that of boarding children, one or two, in the families of respectable country people, which, practised to a small extent here, is carried out on an enormous scale in Denmark, and he believed that the money thus spent in securing palpable benefits for a selected few would be better laid out than in giving to a larger number the equivocal privilege of "a day in the country," with its consequent excitement and fatigue.

The Conference closed on Saturday with papers by Dr. G. E. Shuttleworth, of the Royal Albert Asylum at Lancaster, and Dr. Fletcher Beach, of the Darenth Asylum, on the "Health, Bodily Development, and Mortality of Imbeciles, as compared with children of sound mind." Dr. Shuttleworth showed that the defective development was not confined to the mental faculties, but that their bodies were no less feeble, even the hands being often characteristically malformed. A large proportion, perhaps 40 per cent., were subjects of some form of scrofula, and as many suffered from epilepsy, chorea, &c., even when epilepsy was not the immediate cause of the idiocy. They belonged also in most cases to families in which scrofula or nervous diseases were frequent, or were the children of drunkards. The mortality between the ages of 5 and 20 was in each quinquennium from 8 to 10 times as great as in the general population of the same age; while at Darenth, where only younger children were admitted, Dr. Beach found the death-rate twice as high as it was at Lancaster. Dr. Langdon Down occupied the chair, and confirmed the observations of the preceding speakers from his own experience. The Conference then broke up. We trust that the many able papers which were presented to it, and which will no doubt be published, will have the result of calling the attention of the public to questions of national importance which affect

not fewer than five millions of individuals—*i.e.*, the entire juvenile population of each succeeding generation.

Curiosity tempted me on Bank Holiday afternoon, writes a correspondent, to mount to the top of the Guilds' Institute, where Mr. Watson Cheyne has recently opened a pathological laboratory in connection with the Health Exhibition, in order to see what interest was shown by the British public in that newest of studies, bacteriology. Except for the attendant and myself, the room was empty, the only empty room, I will make bold to say, in the whole Exhibition. This may perhaps be in part accounted for by its inaccessibility, in part also perhaps by a feeling amongst the public that germs are uncanny things and not to be run after. But the chief reason no doubt lies in the general ignorance on the part of most people outside the profession (and on the part of some within it) that this very study of germs is one of the most fascinating that exists, and that a few words of explanation are enough to make it interest any intelligent being. It touches so many matters of common every day experience. The child who has picked gum off a cherry tree, the dairymaid who cannot keep her milk sweet, the housewife troubled by the growth of mould on her jams, the epicure who loves his blue Stilton and Camembert, the man who has seen his friend die of decaying lungs, or has himself suffered from a zymotic disease, has had an object lesson in bacterial pathology which ought to give to Mr. Cheyne's demonstrations an interest above that of anything else in the whole Exhibition. All that is needed is a few words of intelligible explanation.

The arrangements of the laboratory are not yet complete—the cholera germ, for instance, is not yet on view—but there is already much worth seeing. The way in which the different germs grow in or upon their gelatine pabulum is admirably shown, while the microscopic preparations and microphotographs of the germs of anthrax, glanders, tubercle, &c., though familiar to most visitors to medical *soirées*, will be a revelation to the intelligent layman. Other exhibits worth attention are the mode of examining water by cultivation, as regularly practised at Berlin, the method of testing the relative value of disinfectants by their influence as germicides, and the processes for examining air, water, and earth for the presence of germs. The specimens of plants infested with microscopic growths and the graphic representations on the walls of the mortality from zymotic diseases are also well worth studying. At one end of the room are several tables fitted up for the use of different workers, a sign, it is to be hoped, that this laboratory is not intended only as a passing show for the public, but will be made a permanent institution where the study of bacteria can be systematically carried out under competent guidance. Mr. Watson Cheyne should be made Germ-Inspector in Ordinary to the Queen, with an adequate salary.

The profession in general and St. George's men in particular will cordially approve of the promotion of Sir Prescott Hewett, from the post of Sergeant-Surgeon Extraordinary to that of Sergeant-Surgeon to the Queen. It was thought by some that as Sir Prescott Hewett had retired from the active practice of his profession before having the good fortune to attain to that quaint dignity, which has come down to us from the days of Crecy and Agincourt, the post would be bestowed on another surgical baronet. By ignoring this imaginary disqualification, however, the advisers of Her Majesty have been able to reward one who has set the best possible example to his successors—that of making room for younger men while still in the full tide of practice. All who have seen Sir Prescott Hewett in his frequent visits to town since his retirement, will be inclined to admit that he has found another reward for his self-denial. He has grown young again.

On Wednesday week, "Founder's day," Sir Joseph Fayrer presided at the annual distribution of prizes at Epsom College. There was the usual reading of honours gained elsewhere by the pupils of the school, and the customary recitations, followed by the distribution of prizes. Subsequently Dr. West, the head master, announced that the Governors of St. Mary's Hospital, and the Staff of St. Thomas's had resolved to offer scholarships to their medical schools, to be competed for by pupils of the College; and then Sir Joseph Fayrer, as chairman, "said whot a owt to 'a said an' a coom'd awaäy."

Members of the medical profession who have with reason made frequent complaints in our columns of the unprofessional advertisements appearing in the daily newspapers, will be glad to learn that, so far as the Royal College of Surgeons of England is concerned, an important step has just been taken calculated to check these practices by the removal, by resolution of the Council of that College, at a meeting on the 5th instant, of one of its Members, viz., Mr. George Washington Evans, who has, after careful enquiry and due deliberation, been judged by the Council to have been guilty of an offence against the by-laws of the College by the issue of advertisements and pamphlets declared to be "prejudicial to the interest,' and "derogatory to the honour of the College," and "disgraceful to the profession of Surgery." The effect of this resolution will be that the name of George Washington Evans will also be erased from the Medical Register.

The pass-lists of the summer matriculation, and of the annual preliminary scientific examinations of the London University have just been published. For the former examination there were 972 candidates, of whom 536, or 55 per cent., were successful. In the honours division there were 81 candidates, eight of them ladies; in the first division, 407 candidates, 67 of them ladies; and in the second division, 48 candidates, four of them ladies. From the small proportion of ladies in the honours and second divisions, it is evident that they fully realise the truth of the saying, *In medio tutissimus*. At the preliminary scientific (M.B.) examination there were 254 candidates, of

whom 134 passed (or 52·8 per cent.), 14 in the first and 120 in the second division. Six ladies appear to have entered for this examination, but only one passed, and she was placed in the second division. The intermediate examination in medicine is still in progress; 150 candidates have entered, of whom only one is a woman.

The Medical Graduation Ceremony, writes our Edinburgh correspondent, took place on Friday, the 1st instant. Previous to the ordinary graduation, the honorary degree of LL.D. was conferred on Professor Asser, of Amsterdam, and on Sir Joseph Hooker, of Kew. Both gentlemen were very heartily received. The same degree was also conferred *in absentiâ* on Dr. Ludwig A. Wiese, who would have received the degree at the Tercentenary Ceremonial, but was unable to be present. Thereafter thirty-seven gentlemen received the degree of M.D., Drs. George Frederick Crooke and William Russel taking gold medals for their theses. One hundred and seventy-one candidates were then presented for the degrees of M.B. and C.M. The Ettles Prize—the blue ribbon of the year—was awarded to John Stevens, M.A., M.B., C.M., who also received the Hark Scholarship. The Beaney Prize and Scott Scholarship were gained by Francis Antill Pockley, M.B., C.M.; the Buchanan Scholarship by Fourness Henry Simmons, M.B., C.M.; and the Tyne Surgical Fellowship by Ernest Edmund Maddox, M.B., C.M.

Professor Cossar Ewart, the Promoter of the year, who rose amid loud applause, then addressed the graduates. After some advice as to the course they should adopt in order to promote their present knowledge, more especially with reference to residence for a period at some other school, Professor Ewart referred to the great disadvantage under which the pursuit of science lay in this country from the almost total absence of anything in the form of fellowships which might enable graduates to prosecute the study of the various departments of scientific work. He contrasted the liberality of Germany in this matter with the state of things here. He offered various suggestions as to the mode of improving matters by the appointment of Assistant-Professors, at reasonable salaries, the establishment of elective fellowships, &c. In dealing with the question of ways and means, the speaker said that he could see two sources of help. One was that the Professors themselves would liberally contribute to such a scheme, and, in the second place, he felt sure that when the want was known help would come from without.

The suggestions made are well worthy of attention, and we cordially commend them to the best consideration of the Professors in the Medical Faculty. If report speaks true, the recent action on the part of the present Assistants, to call attention to their somewhat unsatisfactory status, by means of a memorial to the Lord Advocate, has not been viewed with that favour on the part of the Professors which one would have expected from men eager to move in the direction indicated by Professor Ewart. Perhaps it may be that they themselves were preparing to do so, and are annoyed at having been anticipated in the matter; but if such is the case, the matter has been kept a profound secret. If the course suggested by Professor Ewart is to be followed, the first step is most assuredly that of establishing a number of assistantships, whose emoluments and status will be sufficient to induce well trained and able men to devote themselves to the work of research and higher teaching. As matters stand at present, the position is one in which the continued drudgery of elementary practical teaching is rewarded by the most miserable of salaries. Is it to be wondered that almost any appointment in the other schools, offering, as many of them do, leisure for research and a reasonable remuneration, is sought after by the best men of the Edinburgh School? Thus do we lose, year after year, our best teachers and workers; and of what purpose are our palatial buildings and sumptuous laboratories, if they contain materials in abundance but no men to use them?

The usual graduation ceremony in connection with Glasgow University, took place in the Bute Hall, on Thursday, the 31st ultimo, when the graduates, whose names we give in another column, were duly capped. Professor Young subsequently delivered an address on "the aims and duties of the medical practitioner," in which he lauded dispensary work amongst the poor as a valuable means of education for the future practitioner. He then made some very rational remarks on intemperance, and passed on to consider another form of enforced intemperance—over-pressure in schools. It was not, he thought, overwork so much as ill-directed work that was to blame. There were two errors at work jointly or combined. The one was that children were allowed to waste time, and were then compelled to atone by severe toil; this was the parent's error. The other was, that, even if their work hours were properly managed, they had too much to do; this was the error of the teachers, and one often thrust on them in public as well as voluntary schools. After pointing out dietetics, studies, occupations, and amusements as directions in which preventive medicine had ample field, Professor Young concluded by addressing some words of advice and warning to his hearers. It was for them to show, he said, that from those halls were sent out, not well-drilled tradesmen, but cultivated, thoughtful men, worthy to follow a noble art. (*Hear! Hear!*) [The italics are our own.]

At an inquest held on Tuesday last the Bethnal Green Board of Guardians did not appear to much advantage. An inmate of the workhouse availed himself of the opportunity afforded by the absence of any one in charge to cut his throat with a table knife in one of the wards after dinner. It appeared from the evidence that for the past two years there had been only one attendant on duty in the ward, and that during his necessary absence at dinner and on other occasions, the inmates of the ward took care of themselves as best they might. The guardians have received

a good fright, and we doubt not that for the present they will not push their parsimony to quite such an extreme point. It might be asked how a man with such a history of homicidal tendency as this man had came to be in the general ward ; possibly the fear of subsequent legal proceedings had deterred the doctor from signing his certificate.

The celebrated naturalist Carl Theodor von Siebold having retired from his professorship of Zoology at Munich, a "call" to supply his place has been sent to Professor Weissmann of Freiburg.

THE COPENHAGEN LEECHMOTE.

It may be taken for granted that it never occurred to Thorwaldsen, when he modelled his figures of Æsculapius and Hygeia for the bas-reliefs over the entrance to the royal palace of Christiansborg, that within a century the modern representatives of those divinities, gathered from all parts of the civilised world, would be standing in Copenhagen streets, and admiring his handiwork. Still less, probably, did it enter into the minds of our Viking ancestors, when they crossed the North Sea in search of plunder, that the return journey would one day be made so peacefully by their degenerate descendants. Could they have foreseen it what laughter would have gone round the board at this modern witenagemote,—this meeting of wise men who cross the sea, prepared to pay for board and lodging, and to take nothing home with them but new ideas and pleasant memories. The name of the meeting-place—Copenhagen, Chapman's haven, Buying haven (cf. German *Kaufen*=to buy)—might perhaps be deemed prophetic of some such mercantile proceeding ; but when the last of the Vikings put off into the German Ocean, Copenhagen was probably not even a fishing village, and certainly had not acquired the name which its position subsequently won for it. All these details, however, we may leave to the guide-books to tell ; just as confidently as we may leave to our contemporaries all moralisings on the interesting event of next week. There is nothing new to be said about International Medical Congresses in general.

It is not to be expected that the Congress at Copenhagen will be as big or as brilliant an affair as the London Congress. To match that, or to "whip" it, we must wait another three years, until the United States are given an opportunity of showing what they can do at Washington. Still, size and lavish expenditure are not necessary to make a Congress successful from a scientific point of view ; possibly they interfere with such success. At any rate the list of subjects and the names of the contributors who are to engage attention at Copenhagen warrant one in believing that quite as good work will be done in the Section rooms there as was done at Burlington House three years ago. The United Kingdom will be well represented at the Danish capital. Sir William Gull, Sir Joseph Lister, Sir Spencer Wells, Sir W. MacCormac, Sir Joseph Fayrer, Dr. Burdon Sanderson, Dr. Ferrier, Dr. de Chaumont, Mr. Bryant, and their younger colleagues, may be safely trusted to worthily uphold the reputation of the English School against the many redoubtable champions of Continental science—Virchow, Pasteur, Paul Bert, Koch, Ranvier, His, Panum, Tommasi-Crudeli, Esmarch, &c.—whom they will meet.

In one respect the Copenhagen Congress seems likely to surpass previous meetings of the same nature. It will be remembered in years to come, it is to be hoped, as having witnessed the successful inauguration of a movement which is the necessary complement of these international gatherings, and which will, no doubt, have an important influence on the scientific progress of the future. It is gratifying to think that England is taking the leading part in organising the proposed "International Collective Investigation of Disease," and certainly the task could not have been entrusted to better hands than those which are to carry it out. Sir William Gull will stand sponsor for the new-born scheme at one of the General Meetings, while the active work required to set it upon its legs will be undertaken by Professor Humphry, Dr. Mahomed, and Dr. Isambard Owen. Sir William Gull may be confidently expected to rise to the occasion, and his address on the subject will be marked by that philosophic breadth of thought and happy suggestiveness of speech which he always has at his command. The idea is a big one, and it is a credit not only to England, as we said before, to have been the earliest to propose it, but it is a credit also to Medicine that she should be the first of the sciences to organise and gather up the research of the nations. Such, however, is only in accord with her proud title, "*Mater Scientiarum.*"

ANTI-VACCINATION ARGUMENTS AND FIGURES.

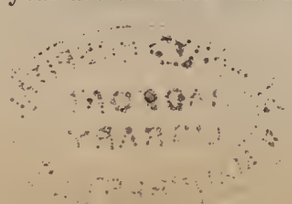
We can understand the motives which actuate the most rabid teetotallers, opponents of the Contagious Diseases Acts or anti-vivisectionists, so-called ; and however much we may differ from them in their conclusions, we can make some allowance for the exaggerations, if not misrepresentations, into which they are led by their mistaken zeal in what they suppose to be a crusade against cruelty, immorality, or vice. But it is quite otherwise with the promoters of the agitation against vaccination, with whom it is impossible for any reasonable man to feel the smallest sympathy. No questions of morals or religion are involved, but simply those of scientific facts to be approached and solved like any others in the domain of public health ; in short, they are these : Does vaccination confer any real protection against attacks of small-pox, or diminish the mortality of the disease? Is it attended by any appreciable danger to life, or risk of communicating other diseases? And, supposing both questions answered in the affirmative, do the certain benefits of vaccination so outweigh the contingent dangers as to justify its compulsory performance? This is the real point at issue, which demands a fair and full examination, for the mass of statistical and experimental evidence in support of vaccination is so overwhelming and so consistent with itself that to discredit it necessitates the monstrous assumption that, with the exception of a few obscure individuals, so few indeed that in each country they may be counted on

the fingers of one hand, the whole medical profession throughout the world is involved in a huge conspiracy, agreeing in their mis-statement of facts and manipulation of figures, in order that certain of their brethren may profit by the fees paid for vaccinating infants at 1*s.* 6*d.* each—*Credat Judæus non ego*—and yet these very men who would remorselessly sacrifice the health of future generations to the Moloch of trade interests are everywhere indefatigable in promoting, too often thanklessly, those sanitary measures which tend to reduce the total amount of disease, and to which alone, the anti-vaccinationists would have us believe, any diminution in the mortality from small-pox is to be ascribed. Surely it is at once more probable, and more charitable to believe that the leading opponents of compulsory vaccination are, like those who formerly resisted the factory and adulteration acts, so possessed by a feeling of repugnance to any interference with the so-called liberty of the subject as to be incapable of distinguishing truth from falsehood, or of seeing anything that is contrary to their pre-conceived ideas, if, indeed, prejudice have not blunted or effaced their moral sense; while their following is composed of persons who, whether from sheer ignorance, credulity, or an innate aversion to compulsion, are easily deceived by reckless assertions into the accuracy of which they have neither the means of enquiring nor the disposition to do so.

To refute the undigested mass of shameless mis-statements, gratuitous assumptions, statistical jugglery, and fallacies of every kind which constitute the literature of these people would be a veritable Sisyphean labour, or like cutting off the heads of the Lernean monster. No credit whatever can be reposed in their figures; Dr. C. J. Pearce, for example, in several parts of his book asserts that the death-rate from small-pox for the five years 1875–79 was in England and Wales no less than 344 per million, whereas the correct figure is 82, and that the mortality has not diminished since the passing of the Vaccination Acts, whereas the mean annual mortality for the whole preceding period for which statistics are available was 420, and for the twenty-eight years 1854 to 1881 only 196 per million. But still more fallacious because more plausible is their mode of manipulating accurate statistics so as to deduce false conclusions from true premisses. Dr. Boing, their champion in Germany, says truly that in the ten years preceding the first Vaccination Act of 1867 there were in England and Wales 41,606 deaths from small-pox, and in the eight years following, which included the epidemic of 1871–72, the heaviest of which we have complete records, 53,933. Very well, but if we classify the deaths according to age we shall find that the great majority of these were born before vaccination was made obligatory, and that their deaths should be credited to the want of compulsion in their infancy. Again, they persistently refuse to distinguish between the deaths, if any, of vaccinated children under one year of age, and of those who have not yet been vaccinated, assuming that because vaccination at some period, three, six, or twelve months in different countries, is obligatory, every infant born into the world is from that moment a sharer in the alleged benefits of the operation. Whereas, the vast majority of deaths under one year are of those who have for some reason or other not been vaccinated, for a large number, in some London parishes 15 to 20 per cent., escape vaccination altogether. These fallacies might be ascribed to thoughtlessness, but we could expose others so gross that they must have been intended to deceive others since it is impossible to believe that they could have deceived their authors.

Much harm has been done to the cause of vaccination by the propagation, which its opponents are inclined to view with complacency, of absurdly exaggerated notions as to its efficacy, *e.g.*, that the protection afforded is, or ought to be, absolute, and bears no relation to the number or size of the vesicles, and that want of success in vaccination or re-vaccination is evidence of insusceptibility to small-pox infection. It is of the highest importance that the public should be provided with correct information as to what is and what is not vaccination; what it does and what it does not claim to do. To begin at the beginning: there is probably no such thing as an infant insusceptible of successful vaccination; at least, Dr. Cory has vaccinated 15,000 without meeting with one such; there may be degrees of susceptibility, but we know well that there are degrees of operative skill. The insusceptibility to the infection of small-pox imparted by successive vaccination is at first almost absolute, irrespectively of the degree of success attained, but it is otherwise with the duration of this immunity which is directly proportional to the efficiency of the vaccination, as is also the modifying influence exerted by the vaccination on any subsequent attack of small-pox. In the case of a child in whom only one insertion has taken the protection is probably lost after the lapse of a year, whereas in one with four or five good vesicles it lasts for ten or more years. But whatever permanent influence a thorough primary vaccination may exert over the remainder of life, re-vaccination, best performed when the effect of the primary operation has begun to fade, *i.e.*, soon after the tenth or twelfth year, if that were satisfactory, or earlier if it were not, is absolutely necessary for future protection. The immunity conferred by re-vaccination is equal to that given by an attack of small-pox itself; thus of the 14,000 patients admitted into the Homerton Hospital in 1871, only four had been re-vaccinated, and the only cases among the attendants in the hospitals of the Metropolitan Asylums Board were those of persons who had not been re-vaccinated. It is unreasonable to expect absolute and permanent immunity when we know that small-pox itself does not infallibly protect from a second attack. Dr. Neuretter found among 1,133 children under 14 years of age treated for small-pox in the Children's Hospital at Prague between 1870 and 1873, no fewer than thirteen, or more than one per cent., had suffered previously, nine of them within seven months. Yet no one doubts that small-pox is one of those diseases which occur, as a rule, but once.

The most complete statistics as to small-pox and vaccination are to be had from Germany, where nearly all medical men are in some sense servants of the State, where the profession is more organised than it is here, and where the military system involves the examination of every man on his attaining his twentieth year. Thus Staff-Surgeon Evers in 1882 found among



2,291 men, the entire surviving male population born in the battalion districts of Chemnitz, in the year 1862, 1,946 who showed marks of vaccination and 345 who did not; of the former 26, and of the latter 73 had had small-pox, *i.e.*, 1·3 of the one, and 78·8 of the other; no account being taken of those who had died of the disease during the severe epidemic of 1871-2 which had intervened. Of that epidemic Dr. Flinzer, of Chemnitz, has left us records unexampled for their completeness. The population was a little over 64,000; the cases of small-pox were 3,596 and the deaths 249. Analysing these he shows that 2,643 cases and 242 deaths occurred among 5,712 unvaccinated, and 953 cases with 7 deaths among 53,891 vaccinated persons; 4,652 who had already had small-pox escaping altogether. No death occurred among the vaccinated under 14 years, while 220 (or 88 per cent. of the total mortality) were of unvaccinated children. The period 1870–3 was one during which small-pox raged throughout Europe with a severity unknown since 1838, and it is interesting to compare the mortality in Bavaria, where vaccination was compulsory at some time *during the first two years* of life, with that of Holland where it was optional. For every 100,000 living at each of the ages 0 to 1, 1 to 5, 5 to 10, and 10 to 20 years, the deaths in Bavaria were 232 (most if not all of them unvaccinated) 10, 3, and 2. In Holland 767, 455, 145 and 72. Thus, of every 1,000 children born 593 (!) in that country died of small-pox within the year! No statistics which do not take account of ages and distinguish between vaccinated and unvaccinated infants, are of the smallest value for, as we have seen from Dr. Flinzer's figures, showing that nine-tenths of the deaths occurred among the latter. Vaccination may be strictly enforced and yet, the disease being once introduced, a heavy mortality occur among the children on whom the operation has not yet been performed, the vaccinated population enjoying immunity. It was so in pre-Jennerian days, when the mortality was almost confined to infancy and childhood, as was clearly shown by the tables laid before the Epidemiological Society at their last meeting. The reason why so many adults at present are attacked by, and die of, small-pox is that they were protected during early life by vaccination, but neglecting to be re-vaccinated they become susceptible again after puberty.

The anti-vaccinators are never weary of appealing to the small-pox statistics of Berlin of 1871-2, but it should be generally known that the more stringent vaccination laws of some of the smaller states were not adopted by Prussia until after the lesson taught by that epidemic. Dr. Voigt tells us that in Hamburg vaccination was rarely performed until the fifth year, when the school regulations made it necessary, and in Berlin it was far from general. Both towns suffered heavily, but since that time the number of deaths in Hamburg, with its 500,000 inhabitants and the great thoroughfare of emigration, has averaged 5 per annum, and in Berlin, with a population of 1,225,000, they have, with the exception of one year when they amounted to 50, been but from 2 to 8 annually. But even in the great epidemic years during the Franco-German war, the French Army lost 23,232 men, and the Germans, vaccinated for the most part, though, as we have reason to know, not universally on enlistment, lost only 223! With the present prevalence of small-pox in England it is interesting to observe that for a long time past the total deaths from this cause in the whole German Empire have averaged from 2 to 4 per week and that a large proportion of these have occurred in Metz, which has been a German town only since 1871, though in Prague, which politically is outside the Empire they range from 10 to 20 weekly. In Frankfort not a single death has been recorded for we know not how many years.

The strongest, indeed the only plausible, objection that can be urged against vaccination, is the possibility of the communication of syphilis, the production of erysipelas or blood-poisoning, and it is alleged of other skin diseases. As to the latter we may state positively that their appearance after vaccination is a mere coincidence, or at most that it may have been accelerated by the febrile irritation set up. We have seen several instances of eruptions, as eczema, occurring at the the third or fourth month in children whose vaccination had been deferred for some reason or other, but which would otherwise most surely have been attributed to the operation. Erysipelas will follow the inoculation of septic matter or exposure to sewer gases after vaccination as after a scratch with a pin, and we have seen cases of erysipelas in the vaccinated infant side by side with diphtheritic sore throats, and other results of blood-poisoning in other members of the family attributable to the same cause.

Lastly, with regard to syphilis, no one can deny that it has been communicated by vaccination; but such an accident cannot occur without gross negligence on the part of the operator. However desirable it may be, it is not necessary to know the pedigree of the vaccinifer; a child whose skin is perfectly clear, and whose vesicles are of typical form, may be safely used as a source of lymph; but we would advise our medical friends never to vaccinate even from unimpeachable sources a child who has the slightest evidence of congenital syphilis, lest he be made a scapegoat for the sins of its father. Such cases have not unfrequently occurred, and no Local Government Board enquiry will remove the obloquy incurred by previous misrepresentation. The employment of calf lymph, though it has no advantage over human as regards efficacy, has the merit of precluding such an allegation.

CIVILISATION AND THE TEETH.

If the fully-evolved man of the future is to be, as has been prophesied, a hairless individual, he is only too likely to be—excepting his indebtedness to the manufacturing dentist—a toothless mortal also; for which result a persistent preference for ornament over use must be mainly held responsible. If Helen of Troy possessed teeth as good as those of her Britannic contemporaries, she had probably as square a jaw, and a mouth of equally capable dimensions. One item in the civilised ideal of female beauty, the rose-bud mouth to wit, is undoubtedly accountable for a great deal of the crowding and consequent injury of the

teeth especially observable in patients of the upper and middle classes, while the frequent decay of the back teeth even before the marriageable age is reached, and the persistence of the visible front teeth till shortly after that age would seem to show that natural selection has some of the infirmities not usually associated with abstractions, and that "out of sight" is even for it "out of mind." Certain of the luxuries of modern life, and the operation of some of its so-called duties, aid in completing that destructive effect against which, curiously enough, another outcome of the civilising process—inherited gout—alone seems able to oppose its recognised attributes of large, regular, strong, and well-enamelled teeth. In the case of the negroes of the Southern States of America, a remarkable dental degeneration seems to have attended the changes in food and habits which followed the abolition of slavery. Formerly the slaves lived chiefly on corn-meal and meat: at breakfast, coffee, and with dinner, vegetables were taken in addition. Occasionally wheat-flour took the place of corn (maize), but it was ground on the plantation and not bolted. This food, served at regular hours, and combined with plenty of fresh air, exercise, and sleep, made the teeth strong and hard. Now the negroes eat fine wheat-flour bread, spend a large part of their wages in sweetmeats, eat at irregular times, and sleep too little.

The other side of the story is presented in a paper recently published by Dr. Kirk, who has under his care, in the Pennsylvania Institute for Deaf and Dumb, the teeth of some 400 children. By the time that the children have been a year in this institution an entire change is noticed in the character of their teeth; they have become so hard that the instruments must be re-tempered in order to cut the dentine in preparing the cavities for filling; they become more firmly implanted in their sockets, and extraction is thus rendered difficult; several cases of the spontaneous arrest of caries, and of new formation of dentine have been observed. These favourable changes are attributed to the dietary, which consists largely of various preparations rich in bone-forming material, such as maize, oats, and wheat, from which the layer just beneath the siliceous coating has not been removed in milling, together with a liberal supply of milk and a limited amount of sugar.

Another important, but only lately recognised, cause of dental decay, is the undue exaction of nervous energy—probably often combined with insufficient or improper alimentation. Recent observations have shown that carious teeth are common in modern schools in proportion to the educational standard adopted; and that the children in the higher forms have—out of all proportion to their more advanced age—worse teeth than those below them; while caries has not infrequently been noticed to commence suddenly, or to extend rapidly, during the period of examination strain. The greater work imposed upon the cerebral and other nervous centres is supposed to divert a portion of the phosphates and other mineral constituents which ought, by rights, to be devoted to the nourishment and growth of the dental structures; and it is not improbable that the secretion of the buccal glands and mucous membrane is modified under the influence of mental exertion, to the deterioration of the teeth.

A newly-awakened affection for certain hygienic reforms promises to accomplish much for us and for our descendants; but fashion and folly are doing even more in other directions. If it be true that the spread of a dietetic love of water is the real reason why the increase in the medical profession has not exceeded three per cent., something less innocent, surely, is responsible for an addition of 43 per cent. to the ranks of the dentists during the same period. Altogether, although the means of securing present comfort, and of avoiding an otherwise not distant era of toothlessness appears quite within our reach, the prospect is not reassuring. A few generations will pass and a posterity which may be learned in the application of "atmospheric suction," and in celluloid and gold plates, will universally sleep without its dental tools; it will miss the point of many allusions in the writings of its ancestors; and the figures which are now stereotyped in our handbooks of anatomy as representative of the infantile, the adult, and the edentulous jaw, will be regarded in the light of an anatomico-archæological puzzle. Teeth—in the sense in which we still use the word—will then remain only to such animals as are too stupid or too wise to be civilised and educated.

REVIEWS AND NOTICES OF BOOKS.

LARYNGOLOGY IN PRACTICE.[1]

A VAST number of works on the special subjects which now form no inconsiderable part of the average doctor's every day requirements are published for the nominal benefit of "students and practitioners." To what extent they are successful in hitting the mark at which they aim, the publishers and booksellers alone can tell; the measure of success which they merit may, however, be judged by anyone who will take the trouble to peruse them. Such a perusal of Dr. Gottstein's work will probably lead the reader to the conclusion that to him at least the credit of having produced a work at once comprehensive, clear, and practical may fairly be conceded. The study of Laryngology has of late years received far more attention at the hands of teachers and students than was ever the case in former times, and the value of a practical knowledge of laryngoscopy has become well recognised in the daily routine of work, and is no longer the exclusive privilege of a limited number of specialists. An essentially practical work upon the subject is therefore fully justified in its appearance, and may fitly supplement the standard works of Mackenzie, Stoerk, Tobold, and others of established reputation.

In dealing with the subject, Dr. Gottstein has divided his work into three main divisions, in the first of which he discusses laryngeal disease in general, its ætiology, diagnosis, and treatment, entering with sufficient detail into each. In his second division

[1] *Die Krankheiten des Kehlkopfs* (Diseases of the Larynx). By Dr. J. Gottstein, Docent in the University of Breslau. Vienna: Toeplitz and Deuticke; 1884; pp. 261.

he treats of the primary affections of the larynx, inflammatory, traumatic, and nervous, and of the new growths which may occur within it. The third part relates to those affections of the organ which are secondary to some form of general disease. The early chapters dealing with the technical part of the subject are written in a very practical tone, and evidently embody the teachings of a wide experience. The rule that no laryngoscopic examination can be regarded as complete unless the anterior commissure of the vocal cords be clearly seen may possibly sound severe, but it is a rule that ought always to be borne in mind, if only as a stimulus to the zeal of laryngoscopists who find it difficult of fulfilment. Although bound, as the writer of a text-book, to make mention of all the divers methods of introducing remedies into the larynx, the author gives very clear indications of his own preference for certain modes of treatment. Thus he is by no means enthusiastic about the use of medicated spray, believing that so little of the medicine reaches its destination by this means that for all practical purposes plain steam would be just as useful. The direct introduction of the remedy by means of the brush or the insufflator he regards as far more effective, always provided that it be introduced under the guidance of the mirror. The use of the galvano-cautery is but lightly touched upon, preference being given to the forceps or the guillotine in cases of endo-laryngeal tumour. The advantages of the galvano-caustic apparatus of Voltolini and of Bruns would appear to deserve something more than passing mention. The difficulties attending the introduction of instruments into the larynx are of themselves considerable, and the substitution of the light thin wire for the thick and heavy handle of the forceps or the guillotine is no small gain where absolute accuracy of touch is required. The freedom from hæmorrhage and the diminished pain and laryngeal spasm which follow its application ought also to be regarded.

In dealing with the subject of acute laryngitis the author draws especial attention to the nocturnal spasm of the glottis which is prone to attend the affection in young children. The occurrence of isolated "croupy attacks" in children who otherwise enjoy good health is familiar to most practitioners, but its true nature is frequently left undecided. The importance of recognising the premonitory symptoms and instituting the appropriate treatment, which is in the main prophylactic, is here fully insisted on. In the diagnosis of chronic laryngitis due importance is attached to the necessity of making a thorough examination of the general condition of the patient, and especially of the thoracic viscera, before coming to a conclusion. In the simple forms of this condition local applications must be recognised as the appropriate treatment, and in expressing this opinion, Dr. Gottstein stands in complete accord with all previous writers upon the subject. This truth, perhaps, is but too little regarded in this country where it must be confessed that gargles and inhalations are too often resorted to for indefinite periods with results as unsatisfactory as the treatment is unscientific. In dealing with the various forms of laryngitis, much stress is laid by the author upon the condition which he terms submucous laryngitis, and which is, in effect, inflammation of the submucous cellular tissue, analogous both in its course and its causation to the corresponding condition in the subcutaneous tissues. In many respects the laryngeal changes which it induces may resemble the alterations set up by perichondritis or by œdema. It is generally local at first, and not of necessity symmetrical, but usually attacks the loose folds of submucous tissue, as in the ary-epiglottic folds or the inter-arytænoid mucous membrane. The condition has been described and figured by previous writers, but not differentiated with sufficient clearness from the affections which it resembles. The processes of ulceration as seen in the larynx are described concisely and clearly, and a wholesome caution is given against over-readiness to diagnose the condition from the laryngoscopic signs alone. Morbid growths and their operative treatment are described and discussed somewhat summarily. The author expresses dissent from the frequent use of the galvano-cautery in such cases, but gives no reasons for his adverse opinion. He would in all cases prefer the removal of growths *per vias naturales* where possible, and would reserve the extra-laryngeal treatment for the remainder, or for cases where extreme dyspnœa, dysphagia, or aphonia are present. Amongst the most valuable, if not the most original, sections of the book is that relating to the neuroses of the larynx. A good description is given of the disturbances of co-ordination of the movements of the vocal cords, many instances of which have of late been put on record. The law which has now become established with respect to paralysis of the recurrent laryngeal nerve, that the abductor muscles supplied by it are the first to lose their function is here accepted as the opinion of "all authors." It may not be out of place to note that the discovery of this law, mainly due to the labours of Dr. Felix Semon, is of very recent date, and but few authors have as yet found the opportunity of expressing their opinions upon it. Of the concluding chapter upon the secondary affections of the larynx, space will not permit of any detailed notice. The book as a whole is a practical treatise of real value to practical workers, and may be accepted as a trustworthy guide by those "students and practitioners" to whom it is especially addressed.

Transactions of the American Gynæcological Society. Vol. VII., for 1882. Philadelphia: Henry C. Lea, Son and Co.; pp. 485.—This volume is perfect as usual in paper, type, and binding. As to its contents, although it contains plenty of matter for study, yet better volumes, in our opinion, have appeared in the series. The first paper is by Dr. Emmet, on "a new method of exploration, with the pathology and treatment pertaining to certain lesions of the female urethra." This new method is the making of a urethro-vaginal fistula. According to Dr. Emmet, this is "the only method within our knowledge to-day which fulfils every indication; is safe, simple, and within the scope of any one possessing the least degree of surgical dexterity." We are inclined, until the subject is better understood, to put this along with Dr. Emmet's astonishing assertion, that women never become pregnant after the cervix has been torn. We cannot always tell whether Dr. Emmet is joking or not. He seems aware that some of his dicta excite surprise, for he prefaces the statement quoted by saying, "I have been told by my friends that I hold a fair reputation with the profession, for being reliable and moderate in my statements." We need not criticise

the paper, because the bubble was pricked by Dr. Skene, who in an excellent speech corrected Dr. Emmet's exaggerations, and put a reasonable, perhaps somewhat too favourable, view of the new method before the association. We would advise those who read Emmet's paper, to read also Skene's criticism of it. As Dr. Skene says, "honesty of purpose does not always secure accuracy of observation or soundness of judgment." The next paper, on "the proper use of ergot in obstetrics," by Dr. Joseph Taber Johnson, is also characterised by absurd exaggeration, and was also effectively and rationally criticised. Dr. Fordyce Barker's speech will serve as the antidote to Dr. Johnson's extravagance. Dr. Drysdale describes at length his views on the "ovarian cell;" but it was apparent in the discussion that he has not yet convinced the profession of the diagnostic value of these bodies. Dr. Stansbury Sutton writes on "the treatment of the pedicle in ovariotomy," and Dr. Parvin on "the cure of the perinæum," but neither of these papers contains anything novel. Dr. Fordyce Barker, in a paper on "leucorrhœa," reminds his readers of the fact, which some might think has been almost forgotten in America, that leucorrhœa sometimes depends upon constitutional causes, and that in such cases local treatment is neither necessary nor beneficial. Mr. Knowsley Thornton states his opinion, which will be well known to readers of this journal, as to "the relative value of hysterectomy, and removal of uterine appendages for the cure of uterine fibroids." Then follow two very unsatisfactory papers on the subject of "extra-uterine pregnancy." The first is by Dr. Garrigues, on the treatment of this condition by electricity. He thinks this measure curative; but in most of the cases he relates, the diagnosis is open to doubt. Dr. Thomas gives the history of 21 cases coming under his own observation. But the diagnosis was unverified in too many of them for the paper to be of scientific value. Dr. S. C. Busey writes on "the influence of the constant use of high-heeled French shoes upon the health and form of the female, and upon the relation of the pelvic organs." Dr. Busey's writings upon the diseases of the lymphatic system are so good, that we read with respect anything coming from his pen. The present paper, however, is purely theoretical. Dr. Busey simply points out what might be expected to follow; he does not adduce any evidence that these consequences actually are produced. In the discussion which followed, several speakers remarked that numbers of women wear these shoes without suffering from any evident ill effect. The next paper is a really extraordinary one. It is by Dr. Ely van de Warker, on "the mechanical therapeutics of versions and flexions of the uterus." The author fervently believes in mechanical gynæcology, and his paper is illustrated with no less than 138 pictures of pessaries! What is also remarkable is, that it is put forward as a "pioneer paper." The author describes the lever action of Hodge's pessary in pulling up the posterior vaginal attachment of the uterus. This explanation was first advanced by Schultze. It was brought to the notice of the Obstetrical Society of London, in 1876, by Dr. John Williams, who gave due credit to Schultze. Dr. Williams's paper, on "the mechanical action of pessaries," was appropriated without acknowledgment by Dr. Frank P. Foster, who read a paper identical with it, both in title and in substance, before the American Gynæcological Society, in 1881. And now, in 1882, we have it again reproduced, without mention of any previous writer, in this "pioneer paper!" Which almost forces one to believe that in America a pioneer must mean a person who comes last! Dr. Collins Warren describes a modification of the operation for ruptured perinæum, but it does not seem to us an improvement. Dr. W. L. Richardson, of Boston, comes next, with a valuable contribution to scientific obstetrics, in the shape of a further series of those measurements of the uterine cavity in childbed, by which he has done so much to advance our knowledge of the process of puerperal involution. Dr. Mann furnishes a laborious and useful paper on "surgical operations on the pelvic organs of pregnant women." Dr. Baker writes on "hyperæmia of the vesico-uterine membrane" detailing a number of cases in which, to cure irritable bladder, he submitted the patients for several months to the inconvenience and suffering of a vesico-vaginal fistula. There seems to us no evidence to show what was the morbid condition present in the cases described; and it may well have been that the patients professed themselves well, simply to avoid further treatment. The volume concludes with a memoir of Professor James Platt White, written, in a somewhat inflated style, by Dr. T. Gaillard Thomas.

Although we have criticised freely some of the papers in the volume, yet we are glad to say that both in some of the papers and in most of the discussions, we think we perceive a less tendency to exaggeration, more hesitation before jumping to conclusions, some increase of scientific scepticism—in short, a little swing of the pendulum towards conservatism, caution, and moderation. Whether we are right in this, whether the re-action against excessive local meddling that is felt in England has yet spread to America, time will show.

Mittheilungen aus der Chirurgischen Klinik zu Tübingen; von Dr. Paul Bruns. 1. und 2. Heft. Tübingen: H. Laupp, 1884, pp. 380.—These "contributions from the surgical clinic" of the Würtemburg university may best be compared to our volumes of Hospital Reports, of which those that proceed from Guy's form one of the oldest and best examples. Situate on the borders of the Black Forest, Tübingen is a little out of the ordinary track of students visiting the Continent. Yet its university, founded in the latter half of the 15th century, is very highly and justly esteemed. The volume is dedicated to the memory of Victor Bruns, who was chief surgeon from 1842 to 1881, and well known for his many contributions to practical surgery. The papers are by different authors, either past or present "assistants" in the Hospital, and embrace the whole range of surgical cases, which will be found discussed from the latest and most advanced scientific standpoints. Thus, Dr. Bruns (now Chief Surgeon, and editor of the volumes) among other papers contributes one on the operative treatment of irreducible separation of the epiphyses. In cases without external wound, he suggests boldly cutting down on the injury, and removing the extremity of the diaphysis, and then reduction of the epiphysis to its normal position; his suggestion is supported by two successful cases. If the subsequent volumes maintain the standard of the present ones, they will prove a most interesting addition to this periodic class of literature. They are well illustrated, and as regards type and general finish, do credit to the publishing firm from which they issue.

Index of Surgery; by C. B. Keetley, F.R.C.S. London: Smith, Elder and Co., 1884. Second edition, pp. 494.—This book is for the senior student; it is intended by the author that it should be read just before the final examination, after he has carefully studied a complete text book of surgery. By going over the various diseases systematically and giving himself a mental examination on each point as it turns up, the student is able to test his knowledge; if he is unable to follow the index, he must read up the subject at greater length in his text book, and try again. Used in this manner the book will prove very useful. We must congratulate the author on the rapid sale of his first edition.

On the Treatment of Spinal Curvatures by Extension and Jacket; by H. Macnaughton Jones, M.D. London: J. and A. Churchill, 1884.—We hope that every one who has adopted Sayre's treatment of spine disease will not think it necessary to write a book and say so. Excepting to announce this fact, we do not quite see what object Dr. Jones has had in view in the present publication. Having, however, said this much, we readily admit that the treatment followed, both in regard to the spine and also to the hip and knee joints, commends itself to us as being based on rational principles, and the descriptions of the various apparatus recommended are well written. The book has a sufficient profusion of illustrations.

The Retrospect of Medicine; by Drs. W. and James Braithwaite. Vols. 88 & 89.—This well-known work continues to maintain its place among professional literature. Its

size is convenient, and though closely printed, the text is clear and easily read. For the practitioner, too busy to wade through the piles of periodical literature now published, and yet anxious to keep himself fairly posted in what is new and good, we can confidently recommend the work before us; he will find it an engaging and useful carriage companion during his rounds; there are few subjects of any importance which are not referred to at greater or less length. A copious index brings every article within easy reach of the reader.

ABSTRACTS AND EXTRACTS.

RICKETS IN WILD ANIMALS.

Although we have from time to time reported in our notice of the doings of the Pathological Society the many excellent papers on this subject by Mr. J. B. Sutton, we need make no apology for going over some of the same ground again in summarising his communication on the subject in the July number of the *Journal of Anatomy and Physiology*. For purposes of convenience he divides the life of a mammal into three stages, viz., infancy, during which the chief centres of the long bones are developed; puberty, at which the cartilages at the extremities of the long bones, though still separate from the shafts, become ossified; and maturity.

Rickets of Infancy.—The investigations, it should be mentioned, have been conducted almost entirely with regard to monkeys. The first symptom is that the monkey is less lively than usual, grovels about on the floor, and seems to be in pain. Paralysis in the lower extremities and with it incontinence of urine and fæces and priapism follow; the monkey swings himself along using his arms as crutches. Deformity of the chest and curvature of the spine make their appearance about this time, and if the animal is exposed to a chill he gets a cough which soon carries him off. At the autopsy the chief internal lesions are: the lungs show a certain amount of collapse, dependent on the diminished capacity of the thorax by reason of the falling in of the chest walls, to be alluded to directly; the heart generally shows a milk-white patch somewhere on its surface, a consequence of the friction also set up by the deformity in the shape of the thorax; fatty liver is very common, on only two occasions, however, was the spleen found enlarged, the stomach was often dilated; the spinal cord, in cases in which there had been paraplegia, was found compressed, and on microscopical examination it was found that the medullary sheaths, and axis cylinders also, in many places were destroyed, and that the nerve cells had either disappeared or undergone disorganising changes. Of more importance, however, were the changes in the bones. The thorax was pigeon-breasted, sometimes to an extreme degree; the ribs were beaded, a second row of beads being sometimes present near the angles, due really to sub-periosteal fractures. The bones of the skull were often so soft that they could be cut with a knife, those at the base exhibiting a marked degree of craniotabes, whilst those at the vault were somewhat thickened and spongy, and often presented on their inner aspects a worm-eaten appearance, that is to say, the cartilage-formed bones were thinned, whilst the membrane-formed bones had undergone thickening. A high degree of kyphosis was often present, but in addition the vertebræ were frequently very soft, and it is owing to this softness that, when the animal is in the erect position, the weight of the body compresses the vertebræ, thus causing them to encroach upon the spinal canal; to this may be added the fact that a layer of ossific matter is deposited upon the inner side of the vertebræ, and thus the compression of the cord and resulting paraplegia are fully explained. The clavicle is usually thickened, especially at the sternal end, the scapula is soft, the epiphyses of the humerus, radius and ulna are much enlarged owing to the deposit there of a spongioid tissue; the carpal and metacarpal bones are affected similarly, but to a less degree, the long bones tend to be curved, and their periosteum is thick. The long bones of the lower limb show precisely the same change; the pelvis shows a narrowing, especially in the antero-posterior diameter. On microscopical examination of one of the rickety epiphyses three zones may be recognised, viz., (1) A layer of normal cartilage exceeding many times its healthy thickness. (2) The layer of cells arranged in vertical columns, but consisting not of ten or twelve super-imposed cells, but in severe cases of rickets as many as fifty or sixty may be counted in a single column. (3) Beyond these a layer of irregular calcareous trabeculæ enclosing here and there "islets of spongioid tissue" and tracts of hyaline cartilage. The trabeculæ from the thickened periosteum pass into the bone as in health, but do not undergo ossification, which accounts for the softness of the bones.

Rickets of Puberty.—Baboons, bears, lions, and tigers were the animals chiefly studied in this respect. The symptoms are rather vague, paralysis and defective deutition being the commonest, the animal being destroyed on account of his paraplegia. In such cases the spinal cord is found nipped, the liver usually fatty, and often albumen in the urine. The disease may be general, or it may be limited to the axial skeleton alone or to the skull alone. When general the ribs are beaded, but there is not the same amount of deformity of the thorax as in the early form. The skull is immensely thickened, but not the base, only the vault; occasionally the bones of the face are affected, the permanent teeth are late in appearing. In the vertebræ proliferation of the cartilage between the centra and the epiphysial plates occurs causing a swelling, which encroaches upon and compresses the spinal cord. The long bones are not often much affected, they show the same changes as in the early disease, but to a less degree. When the skull is alone affected the thickening may reach a very high degree. Thus in the early form the limbs are chiefly affected, and in the later the skull and trunk almost exclusively.

Rickets of Maturity.—This is much less common. The disease attacks every part of the skeleton, and is evidenced by paraplegia, loss of teeth, and fracture of the bones of the limbs. The skull is light and porous, the alveolar margins of the jaw are absorbed, allowing the teeth to fall out; when fresh the bones are soft and may be cut with a knife, but when dried they are easily crumbled. The chest is often deformed, and the long bones are readily curved during life.

The causes of rickets in animals are probably the same as in the human subject, improper feeding being placed in the front rank. Mr. Sutton concludes his very interesting paper with a few remarks on the so-called fœtal rickets. He is entirely in accord with our best authorities in this country in regarding the affection as of the same nature as cretinism, and as having no real affinity with rickets.

MALE HYSTERIA.

The subject of hysteria in males has lately been brought prominently before the Berliner Medicinische Gesellschaft. A prolonged discussion upon some of the points raised served to show very clearly that the nature and origin of the phenomena so frequently grouped together under that convenient title, are as far as ever from any clear and comprehensible definition. The constant association of hysteria with affections of the uterus or indeed of any single organ has long since been disproved, but its frequent association with disease or disordered function of some of the viscera, is clearly shown by many recorded cases. It is only of recent years that the occurrence of hysteria in males has been fully recognised, and the proportion of male to female cases formerly given by Briquet as 1 to 20, is probably somewhat below the mark.

Heredity is a marked feature in these cases and there is usually a history of nervous irritability in childhood. The period of youth and puberty is the most common time for hysterical phenomena in males, whereas in women there is no period of life exempt from the liability. In his paper on the subject Herr Mendel relates some typical cases and points out that in some instances a kind of dual existence appears to be present in which the patient may be in perfect health with intervals of hysterical disturbance of the

nervous system, the memory in each state retaining no impressions of the events taking place in the other. He draws a marked distinction between hysteria and hypochondriasis. In cases of the latter class, the patient seeks out a cause for his discomforts, and fixing his mind upon the one point, cannot be reasoned or persuaded out of the truth of it, no matter how absurd and inconsistent it may be. The hysterical patient on the other hand exhibits a greater variety of functional disorders, is much influenced by his surroundings and gives every evidence of nervous instability. Hence the rapidity with which hysterical cases may be cured when entirely removed from old associations and the sympathy of relatives. Among the complex symptoms characteristic of hysteria, is that of local pain. Until recent years this local pain has generally been believed to be pelvic and to be associated with the ovaries.

Many cases however were cited in the debate on Herr Mendel's paper in illustration of the fact that such painful spots may also be found elsewhere. Pain localised in the right ovarian region was found to persist unaltered in a case in which the ovary and a tumour connected with it had been removed by Herr Landau, and hence it could not be due to direct local causes. In his remarks upon the case, however, the operator expressed belief that the pains are essentially to be regarded as forms of visceral neuralgia, having some peripheral origin, most probably in the genital apparatus. In an interesting case related by Herr Senator, two painful spots were discovered, symmetrically situated over the parietal bones, in a boy who exhibited very marked hysterical symptoms. Pressure on these spots, even during sleep, at once set up violent crying and struggling. The case was rapidly cured by isolation. The relation of these painful spots to the condition of hemi-anæsthesia in women is not as yet determined, but a few cases have been recorded by Remak and Landau, in which a bimanual examination of the ovary of the affected side proved the organ to be exquisitely tender. In one instance with similar symptoms, the painful spot was localised in a movable kidney.

OBSTETRICS.

Tearing of the Muscular Floor of the Pelvis during Delivery.—A recent number (Band xxii., Heft ii.) of the *Archiv für Gynäkologie* contains a paper which is important from the scientific reputation of the author on the above subject. He commences with a luminous description of the muscular floor of the pelvis, and this to our mind is the most valuable part of the communication. First he considers, for the purpose of refuting them, the absurd exaggerations current in certain American books as to the functions and importance of the perinæum. He points out that the so-called "perinæal body" is really a very small thing, and not at all the gigantic structure displayed in certain diagrams; that it may remain torn through for years, without any prolapse resulting; and that the most extreme degree of prolapse may occur in patients in whom the perinæum is intact. These are facts familiar to every observant gynæcologist, and insisted on by Dr. Matthews Duncan in his work on the perinæum and in his clinical lectures. Dr. Schatz then studies the structure and functions of the "pelvic diaphragm." Here his work is upon the same lines as that of Dr. D. B. Hart, of Edinburgh. The pelvic floor is composed, he says, of three muscular systems. The hindermost consists of the muscular and ligamentous bundles going from the coccyx to the ischial spines. The middle system is formed by muscles running from the ischial tuberosity to the coccygo-anal ligament. The anterior system is composed of the fibres of the levator ani. The anterior part of the diaphragm is thus purely muscular, the middle partly ligamentous, while the posterior has an osseous support. The posterior stretches the least, the anterior the most, during labour. Therefore when the muscular floor of the pelvis is torn, it is most often the levator ani which suffers, less often the more posterior muscular systems. When such tearing has occurred, it can be ascertained by the finger in the vagina, which will feel the gaps in the tissue made by the giving way of the muscle. These may be at the posterior, or lateral parts, the former being the more common. They may, or may not, be combined with lacerations of skin or mucous membrane. When they are so combined Dr. Schatz recommends sewing them up. He thinks that they occur most often in women with rigid unyielding soft parts, and are best to be prevented by the use of hot irrigation and warm baths. In describing these clinical phenomena Dr. Schatz does not detail any observations verified by dissection, or by especially carefully made and exactly recorded observations in the living. It appears as if he had rather thought it enough to apply his theoretical deductions to the explanation of familiar clinical facts. The practical part of the paper, therefore, seems to us the weakest, but the prefatory description of the pelvic floor we think, as we have said, most luminous and instructive.

The Use and Abuse of the Forceps.—Professor Goodell made the following observations in a recent clinical lecture:—"Tears of the perinæum will occur whether the physician uses the forceps or not, but in the majority of cases they come from the use of the forceps, or rather from the abuse of the forceps. Let me give a piece of advice to you as young men. When the proper time comes, put on the forceps and boldly bring down the head, but when it begins to bulge the perinæum, take off the forceps. I do not think that any of you are competent to deliver the head over the perinæum with forceps. The temptation is to turn the head out too quickly. If you take off the forceps you will rarely have a bad tear, and if it does occur you will not get the blame for it. It is a very rare thing for me to end a labour with the forceps on. When the perinæum begins to bulge, I support the handles to see whether the pains are strong enough to end the labour. If so, I remove the forceps. There is such an abuse of this instrument that I sometimes think that Baudelocque was right when he said that the forceps had done more harm than good. It requires great skill and judgment to end a labour with the forceps. A physician from inexperience, or being demoralised by a long and tedious labour, is liable to use undue violence and deliver the head too quickly, or to make traction in the wrong direction. I have myself torn the perinæum, and seen many good physicians do the same. From this experience I should recommend that, unless there be an excellent reason for contrary action, the forceps be taken off when the head reaches the perinæum. Occasionally one blade will catch over an ear and you cannot get it off; but in the majority of cases it can be removed, and that is the proper thing to do."—*Philadelphia Medical Reporter*, June 14.

Craniotomy in Germany.—Dr. Adolph Merkel contributes to a recent number of the *Archiv für Gynäkologie* an analysis of 100 cases of craniotomy occurring in the Leipzig clinic. Statistics are of very little use in determining questions relating to this operation, because its results depend almost entirely upon the personal dexterity of the operator, the cases in which the operation is done, and the time at which it is done. An obstetrician who recognises the necessity for the operation early, and therefore does not waste time in fruitlessly attempting delivery by other methods, and who handles his instruments skilfully, ought to get a mortality, so far as the mother is concerned, not larger than that of ordinary labour. There are, however, two points in Dr. Merkel's communication worth noting. One is, that his results of craniotomy followed by cephalotripsy are better than those in which the latter operation was not done. The other is, that the author finds the scissor-shaped perforator (Levret's is the form he uses) better than the trephine, which is so commonly used in Germany, and recommended in German books. The latter discovery, English practitioners have long since made; and we doubt not, that if they will try the English perforators, German obstetricians will come to agree with Dr. Merkel.

"Endometritis Dissecans."—Dr. P. Kubassow, of St. Petersburgh, contributes a paper to a recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie*, in which he describes three cases of an unusual kind, to which the above name has been given. They are cases in which the lining membrane of the uterus was separated and cast off

entire, in an unbroken sac. They thus seem analogous to, if not identical with, the morbid condition known as membranous dysmenorrhœa; but they differ from it in that the membranous sac, instead of being regularly passed every month, was only discharged once, in the course of an acute illness. The thought occurs to the reader at once, that they are possibly only cases of early abortion. In one of them a dilated and ruptured Fallopian tube, with a considerable extravasation of blood in the pelvis, was found *post-mortem;* a state of things which, on the face of it, looks as if there had been extra-uterine gestation, and the membranous sac passed had been the uterine decidua. Dr. Kubassow thinks that the exfoliated membranes were not products of pregnancy, either intra- or extra-uterine, for these reasons. (1) The history was not that of pregnancy. (2) The histological structure of the membranes was not that of decidua, the giant cells characteristic of the latter being absent. (3) No ovum, nor any trace of ovular attachment was found. Dr. Kubassow has not been able to find this disease described by any author except a compatriot of his own, Dr. Siromjatnikoff, who has published two cases. These two, with Dr. Kubassow's three, are the only cases as yet published of the disease "endometritis dissecans, vel exfoliativa." For the name Dr. Siromjatnikoff is responsible.

Dermoid Cyst. — Dr. Baker (*Boston Medical and Surgical Journal*, January, 1884) reports the case of a hospital patient who was considered to be suffering from pelvic abscess. The aspirator-needle, carried up behind the uterus, gave a fluid like pus; a free incision opened the peritonæal cavity, into which the air entered with a good deal of noise. The fluid proved to be not pus, but fat, and upon this circumstance was founded the diagnosis of dermoid cyst. An incision, about an inch long, was made into the cyst, and its edges united with those of a corresponding incision in Douglas's pouch. Injections into the cyst were repeatedly made; at one time a mass of hair presented and was removed, and later tissue containing teeth and bone came away. Knowing the difficulty of destroying the interior of these cysts, Dr. Baker passed a Sims' speculum *into* it, and applied the thermo-cautery to the whole surface. This was done four years ago, and the patient has remained well since, with no appearance of any return of the cyst.

Unusual Effect of Ergot.—A correspondent of the *New York Medical Journal*, June 14th, relates the case of a healthy woman, aged 25, to whom Squibb's fluid extract of ergot in twenty drop doses three times daily was ordered on account of uterine hæmorrhage. Four days later the dose was increased to one drachm thrice a-day; the first teaspoonful was taken on Saturday evening, and repeated on Sunday morning, noon, and evening. On Sunday morning the patient's forearms and hands, legs and feet became very red and swollen. She was nervous and restless, and her lower limbs felt sore, tender, and heavy. She rose from a chair with difficulty, and could walk with ease only after half-an-hour's exertion. Fleeting pains passed through the shoulders; whenever she closed her eyes "she saw lightning"; formication was experienced in the arms and legs; she was drowsy, and slept nearly all the day. She felt very cold, exchanged her summer clothing for winter attire and slept under warm and heavy bedclothes. On Monday morning the unusual condition had passed off, and she took another teaspoonful of the ergot; in less than one hour all the symptoms of the previous day had returned. The extremities were red and œdematous; she had become cold and uncontrollably sleepy. All the phenomena, subjective and objective, had passed away by the afternoon of that day. It is not stated whether the teaspoon employed was of pharmaceutic or of domestic capacity.

The Battey-Tait Operation.—Dr. Thallon terminates a very elaborate examination of this operation (Seguin's *Archives of Medicine*, April), with the following conclusions. "1. The operation is not justifiable for purely nervous symptoms, independent of clearly marked evidence of organic ovarian disease. 2. It is not justifiable in cases of uterine disease or hydro-salpinx. 3. It is not justifiable—in the light of our present knowledge—for the relief of uterine hæmorrhage, or the arrest of the growth of uterine tumours. 4. It is justifiable as a last resource—all other rational methods of treatment having failed. (1) In certain malformations and injuries of the utero-vaginal canal, rendering menstruation impossible. (2) In incurable disease of the ovaries. (3) In pyo-salpinx. The cure which the Battey-Tait operation offers to the large number of sufferers who constitute the fourth class, is one of the most glorious achievements of the surgery of our age."

Vaginal Injections in the Puerperal State.—Dr. Fordyce Barker is reported to have said that for two years he has directed his nurses never to give a vaginal injection, unless especially ordered, in the puerperal state. Experience has taught him that patients did better than when antiseptic vaginal injections were used in a routine manner.—*Boston Medical Journal*, July 3.

PHARMACOLOGY AND THERAPEUTICS.

Poisoning by the Fumes of Nitric Acid and of Ammonia.—The *Boston Medical and Surgical Journal* for May 22nd contains a report of four cases resulting from the accidental emptying of a carboy of commercial nitric acid. Three of the patients escaped with weakness, slight cough, and general mucous *râles*, lasting for a few days, slight hæmoptysis and a "severe cold" lasting a fortnight, and an attack of pneumonia respectively. In the fourth case, exposure to the acid fumes was more free and prolonged; discomfort was experienced — weakness, pain on coughing, &c.—four hours after the accident, but, with the exception of incessant coughing during the night, no marked symptoms showed themselves until death occurred at 6.15 p.m on the following day. Both lungs were found to be reddened and œdematous; the mucous membrane of the larynx, the trachea, and the epiglottis was injected, and presented several minute ecchymoses; kidneys and liver injected; the other organs were normal. Cases reported by Christison and by Taylor are referred to; and it is suggested that death is due to poisoning by nitrous acid, with which commercial nitric acid is contaminated. The fumes appear to excite an immediate local action—irritating the lungs, and directly affecting the heart and the muscular coat of the arterioles, and a later central action on the cord, with bronchial irritation, hyperæmia and œdema of the lungs, and later pneumonia; further, in the most serious cases there is often a marked but temporary and delusive improvement in all the symptoms (as in one form of poisoning by phosphorous). In contrast with the above, Dr. Swan reports the case of a man, aged 63, in whose arms a pound bottle of strong liquor ammoniæ exploded. The immediate distress for breath was great; the inside of the mouth and the tongue were much burnt and covered with white patches; the fauces were less red; burning pain at the epigastrium and severe frontal pain were complained of. There was loss of speech and of appetite, and sonorous *râles* were heard. The symptoms began to decline in a week's time, when œdema of the lungs appeared. Recovery was fairly complete at the end of a month or six weeks.

Poisoned Arrows.—*The Union Médicale* for April 20th contains an extract from a report of a commission, appointed by the Governor of New Caledonia, for the purpose of examining into the nature of the arrow poison said to be employed by the natives of the Pacific Islands, and how its effects may be best counteracted. The conclusion that the commission came to is (while admitting the reality of poisoned arrows on the West Coast of Africa and those employed by the Indians of South America), that these arrows are not poisoned at all, the fatal effects which they sometimes produce being generally due to tetanus, an affection of frequent occurrence in those climates. The arrows were obtained with difficulty, but various experiments were performed with thirty-five procured from various islands, with entirely negative results. The wounds produced in the engagements of the natives with each other are never immediately fatal, days or even sometimes weeks passing before they induce tetanus, which is the usual cause of death.

Slow Elimination of Hydrocyanic Acid. — Dr. Moser, of Parsons, Kan., records the history of a young man, 27 years of age, who drank at 9 a.m. of a preparation of hydrocyanic acid. He then took some salt and water, vomited freely, and became very weak. Dr. Moser saw him two hours later, when he was retching, cyanotic, weak, pulse only 60, apparently about to become collapsed, and with dilated pupils. Stimulants and iron were given, and he improved, but sank again. From 6 to 8 p.m. he was unconscious, and had at times spasms of all the flexors. Next day he was up and dressed, but suffered from frequent and painful micturition, and complained of the taste of bitter almonds in his mouth. "For several days I distinctly got the odour of the acid in the breath. But all the text-books say that it is very rapidly eliminated, *i.e.*, in two or three hours. What I would like to understand is, whether the teaching of our text-books regarding the elimination of hydrocyanic acid is correct."—*New York Medical Record*, June 21.

Poisoning by Belladonna.—In the *Bulletin de Thérapeutique* for May 15, Professor Masse relates in considerable detail a case of poisoning by a decoction of 3½ grammes of belladonna leaves taken by mistake. As he observes, it is truly a typical case, resembling in its simplicity a physiological experiment, in which the symptoms were successively developed, and accurately observed. We have not space for the details, but the perusal of the original paper will certainly interest some of our readers. Professor Pécholier, of Montpellier, communicates to the same journal for June 30th, an interesting case in which 10 grammes of extract of belladonna were administered as an enema to a young lady 18 years of age. This arose from a mistake, the belladonna which had been ordered to be used, mixed with 20 grammes of lard for frictions on the abdomen, having been mixed with milk and given as an enema. A full half hour elapsed before Professor Pécholier reached the patient, and although he found no serious symptoms of poisoning besides some dryness and constriction of the throat, and marked dilatation of the pupil, he set vigorously to work. Throwing a very large handful of salt into about 200 grammes of water, he at once gave this as an injection, and on its being returned, a notable portion of the poisoned milk came with it. A second enema was given directly afterwards, and as soon as they could be prepared 30 grammes of castor oil with 2 drops of croton oil were given by the mouth, and an enema made with a decoction of 20 grammes of senna and 30 of sulphate of soda. In less than an hour abundant evacuations had taken place, the last of which contained no traces of the milk. We need not pursue the subsequent details of the case, as all serious symptoms were cut short, and next day the patient might be considered as having quite recovered. The fact that in this case the belladonna had been incorporated with lard, and was suspended rather than dissolved in the milk, necessarily rendered its absorption more slow, and gave time for the effect of the purgative remedies.

Local Application of Ether in Neuralgia of the Bladder.—Dr. Parmenter, of Buffalo, writing to the *New York Medical Record* for July 5th, states that in two cases of severe neuralgia of the bladder, in which the usual remedies had been used in vain, he injected into the viscus ten drops of ether in two drachms of water. Within one minute the ether was perceptible in the breath in both instances, and within five minutes there was perfect relief from pain, which previously had been most severe. The observation was verified a number of times. The mucous coat of the bladder being non-absorbing, as some authorities claim, how could the ether pass so quickly into the circulation?

Dr. J. Boeckel on Iodoform.—At a meeting of the Société de Méd. de Strasbourg, Dr. J. Boeckel gave an account of the results of the iodoform dressings which he had employed since 1882. In a total of 240 operations he obtained 220 cures against 20 deaths. In this number of cases he does not include autoplasties, the removal of small tumours, or operations on the toes and fingers. All the operations of the least importance were cured under its influence, most of them by the first intention; and the dressing had shown its good influence in all the cases by absence of complications and the rapidity of the cure.—*Compte-Rendu Général*, July 23rd.

Chloroform for Tape-worm.—A correspondent of the *Philadelphia Medical Reporter* states that he has found the following formula highly successful in the treatment of tape-worm:—Chloroform, Ext. Fil. Maris, aa ʒ i, Emuls. Ol. Ricin. (50 per cent.) ʒ iii. To be taken at once after a fast of 24 hours. The tape-worm was expelled entire in all cases, and in two, even when the extract of male fern was omitted.

Removal of Stains of Nitrate of Silver from the Hands.—M. Liesegang recommends that the stains should be rubbed with the following solution: Iodine 1, iodide of potassium, 10; water, 100; and ammonia, 1.—*Journal de Médicine de Bruxelles.*

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE XII.

Cookery.

But little that is new in this department is to be seen in the Exhibition. Restaurants are much the same as elsewhere, only perhaps rather worse, through being overcrowded, and the supply is often not equal to the demand. Some few lectures have been delivered on the subject of cookery, and some demonstrations given as to economical cooking, workmen's dinners, &c. The raw material of which food is composed is well illustrated, and there are almost innumerable cases containing prepared, and therefore cooked, foods of various sorts, such as those displayed in the South Gallery: potted meats, and fish, biscuits, sweetmeats, jams, &c. In Case 69, Mr. Van Abbott exhibits his special preparations for the needs of invalids and infants, and his bread, biscuits and flour adapted for diabetic patients. In Case 68 we see a very nutritious and pleasant biscuit, shown by Alexander Grant, which possesses the advantage of great portability, and contains, in combination with meal, various sorts of meat, poultry, and cheese, specially adapted for travellers or sportsmen. Such preparations as this are not confined to the food galleries, for in the Western Gallery, devoted to "Machinery in Motion," the modes in which certain articles of food are prepared or cooked are fully illustrated. Jam is made from fresh fruit before one's eyes in Stall 1,144; though in Class II., South Gallery, Case 48 contains the most delicious whole fruit jams in the Exhibition, made by Messrs. Beach, of Ealing; and in Case 51, Messrs. Barnes & Co. exhibit their well known preparations of boiled fruit. Possibly these ready prepared articles of diet do not exactly come under the head of cookery; but as man is a cooking animal, it is certain that any specimens of progress in this art must be a gauge of his advancement in refinement and civilisation, whether the action of heat, which is the primary factor in cookery, be applied for the preservation of perishable articles of food, or for the purpose of rendering them more palatable, and of easier digestion at the moment of consumption. The word "cookery" comprises the preservation of food otherwise than by the action of fire, as for instance where fish, beef or fruit is dried by the heat of the sun, which is probably the earliest and most primitive form of cookery. Over and above the application of heat to food in order to render it easily digestible, and pleasant to consume, the combination of different materials in due proportion, and the well chosen and skilfully imparted flavour to such combinations are essentially included under "cookery." Readers of "Pickwick" may recall the original definition of the varieties of meat pies, all made out of one unrecognised form of animal food, that being the mythical "eat" of the pie-man of the district. "'Tis the seasoning as does it," said Mr. Weller, whether they be "weal and ham, mutton, beef or kidney pies!" There is much to be said for this view of the question, and it is certain that good and proper cookery does a great deal to render unpromising food nutritious and appetising, just as ignorant and careless cookery

destroys and wastes much valuable material, and often must be blamed for producing dyspepsia and ill temper. The simplest cookery to be successful must be based on certain principles, and all who attempt any one of the processes of cooking should be well acquainted with the differences between them, and should not be liable to confuse boiling and simmering, frying and broiling, roasting and baking, and so on. When certain articles of food are eaten raw, as is the case with oysters, with fruit, or with salads, no process of fire cooking is necessary; but the preparation and dressing of a salad is an art which requires as much attention as many other more elaborate processes. The examples served in the restaurants of the Exhibition of this form of cookery are rarely to be commended, for the mixing of a salad which appears so simple, in reality demands attention to so many small details that but few cooks are equal to it. It is difficult to induce British cooks or landlords to believe that a salad cannot be prepared with wet vegetables, or without a sufficiently roomy salad bowl. Water, oil and vinegar do not mix well together, and the first essential of a good salad is to have the lettuce, or green substance of which it is to be made, perfectly dry and fresh. A lettuce should be divided and carefully washed in pure water, then thrown into a clean cloth and well shaken, until all the moisture is absorbed. The leaves should then be broken with the hand into fragments, and placed in the bowl. Three table-spoonfuls of the finest and purest salad oil may now be poured over the leaves, which should be carefully turned and mixed till the oil is all taken up by them. A little salt sprinkled from a salt dredger, and a few grains of black pepper carefully ground over the mixture from a table pepper mill, and the salad awaits the vinegar as a final addition, which must be applied with discretion and very moderately. When allowed to come well in contact with the lettuce leaves, on the top of the salt and pepper, and thoroughly mixed, so that every particle of green is saturated with this combination of oil, acid, and condiment, without one particle of sediment or moisture having settled at the bottom of the bowl, the salad is ready to serve.

Probably the cheap rate at which coal has long been attainable in this country has produced carelessness in the use of it as a cooking agent, and accounts for the low condition of that art which generally exists. In France and other countries where the difficulties of fuel have to be contended with, and economy in its consumption observed, more attention is paid to the art itself, and a great national school of cookery has taken root amongst the people.

The restaurants or dinners at the Exhibition are of the most ordinary kind. The only variations from the stereotyped dinners are to be met with at the vegetarian dining-room, and at the Chinese restaurant. Of the first, notice has already been taken, and it does not deteriorate; the frying is excellent, and all is done that is possible to make food tasty and appetising which lacks the savory element of meat in any form. It is well to observe that the practice of those who direct this establishment, and indeed of most vegetarian kitchens, is to use cotton seed oil for the purposes of frying with great success. This oil is largely imported into Liverpool, and has long been used in Jewish cookery. It is far less expensive than butter or lard, and much finer and purer than the ordinary fat of middle-class kitchens. The slight smell of oil, which is evident when it boils, is obviated by placing a piece of bread in the pan during the heating process. Every good cook knows that fat of any sort should be allowed to boil well, and get rid of all the little particles of water, which splutter and crack as they pass off, before putting anything into the frying-pan to be cooked.

The National Training School for Cookery roused public attention some years ago to the miserable condition of the art of cookery in this country, and so far it did good service to the community; but it has not fully carried out its promises, and it is to be feared that the poor have not derived much benefit from its teachings. Nevertheless a large number of competent teachers have been trained in this school, who are now in various parts of the country giving lectures and demonstrations in cheap cookery to special classes of persons. Cooks of the upper and middle classes benefit by these lectures, for some improvement can be traced in the ordinary dinners of this section of society, and teachers can be secured in country districts on certain terms. Lately, a class for the teaching of good cheap cookery has been established at Netley, for the soldiers who are quartered there, and who have leisure during convalescence from illness to learn much that may be useful to them afterwards, either in foreign countries where the commissariat is often the most scanty, or at home when thrown on their own resources. The lady who gives these lessons says that soldiers are the best and most interested pupils she ever had. Her experience amongst the artisans of the North of England, where she previously taught, was not nearly so encouraging.

It is scarcely to be expected that purveyors of food will lay themselves out to make their bills of fare instructive as well as appetising, and it must be confessed that there is no advance or improvement to be seen in the dinner tables of the Exhibition of this year, beyond what all are accustomed to find in the hotels and restaurants of London. The only interesting feature in this direction, is the introduction of certain Chinese dishes into the menu, served in an annexe of the Chinese court, and this deserves description.

The Chinese dinner is served in a room decorated in an appropriate fashion by a native artist. A wisteria and a bamboo tree, with birds flying about among the leaves, cover the walls. Gay and somewhat brilliant and barbarously stiff artificial flowers in bunches ornament the tables, lotus blossoms, pinks, androses with unnaturally green leaves being the favourites. In a gallery at the end of the room sits a band of Chinese musicians, whose frantic noises and grotesque attitudes are certain to provoke the laughter which is said to be so great an aid to digestion, if they do not startle and agonise the visitor beyond the point of amusement. Around the central artificial bouquet on the dinner-table, several little dishes are placed, containing Chinese confections, sugared potato chips, lotus seeds, and almonds, which are intended to be casually eaten during the repast. These seeds of the sacred lotus, never before seen in London, are soft, white, and about the size of a bean, and though about as pleasant as the seeds of a sunflower to eat are not, we fancy, attractive enough to induce many who taste them to become "lotus eaters" in the sense usually attached to that term. Every guest is supplied with chopsticks and a little two-pronged instrument, with which to catch and transfix any tiny dainty. An attentive Chinaman, with a countenance which encourages confidence, volunteers lessons in the art of using the chopsticks, but in deference to European awkwardness the ordinary knife, fork, and spoon are also supplied.

Dinner commences with the usual *Hors d'œuvres* of dried and tasty meats, fish, olives, &c. Bird's nest soup is then served in tiny basins, and is very good indeed, but as this restaurant is directed by a French *chef* who only introduces Chinese dishes suited to European tastes, it may be but a symbol of what is common in China. The so-called birds' nests of which this soup is made, consist only of gelatine, much like the constituents of the Iceland, or Carrageen Moss, and so form a very good basis for excellent soup, which will bear any amount of flavouring. As old traditions fade rapidly away, and are replaced by scientific discoveries, we are now told that the masses of glutinous material used by the Chinese as birds' nests are no birds' nests at all, but natural growths on the rocks where they are found, and are of purely vegetable origin, much like lichens or fungi. Be this as it may, they have long been supposed to be the habitations and work of certain swallow-like birds, and the illusion is difficult to dispel. With the bird's nest soup is handed in little cups the hot wine called "Shaohsing wine." It is made from rice, and to English taste is indescribably unpleasant. All sorts of little dishes follow this very distinctive soup, such as "*Saumon à la Nankin*," "*Filet de Sole à la Ravigote*," "*Crême d'Amande Pralinée*," &c., all of which suggest the French element of the repast. But besides the bird's nest soup, the Chinese eat several things that we do not, and we recognise them under the Franco-Chinese jargon, "*Bêche de mer aux Truffes*," and "*Shark's Fin à la Bagration*." The first of these dishes is in reality the sea slug, or sea cucumber—Helianthus of the naturalist, "Hi sung" of the Chinese. It lies at the bottom of the deep seas off the coast

of China, and measures about 2½ inches long by three-quarters of an inch thick. When dried it looks like a piece of india-rubber from which protrude rows of short spikes. It keeps well in this state and is cut open when cooked, having somewhat the consistency and taste of turtle, though much less attractive in every way. The "Shark's fins" are entirely cartilaginous, and depend on the sauce in which they are stewed for flavour.

A very peculiar and distinctive Chinese dish was absent from this restaurant, owing to misadventure on the voyage; but we have been privileged to taste it at a private dinner given by a friend who is interested in national peculiarities of diet. Eggs that have been encased in clay and buried in a dry soil for many years, are esteemed great luxuries by the Chinese and are by no means to be despised. No trace of decomposition can be discovered in these ancient eggs, which, by their encasement and burial, are excluded from the attacks of bacteria and the production of objectionable changes; but a chemical modification appears to take place in the constitution of the egg, both yolk and white become transparent, and when eaten are soft, and creamy, and almost delicious, by no means resembling an ordinary egg; but as some of these eggs have been buried for half a century, time and isolation have mellowed and refined away any original roughness of character. It was intended that the English dinner eater should, for the first time, have been initiated into the mysteries of these celestial delicacies, but a whole consignment of them came to grief in their friable cases on their way hither, so that at present we feel no temptation to bury our eggs for the benefit of the next generation. Native beverages seem to be very limited in the Chinese commissariat, we were only offered the "Shaohsing" wine, but were told that champagne was largely consumed in China; the pleasant waiter, with a smile that was "child-like and bland," told us that it was sent from England! Our repast was brought to a conclusion with a cup of "Imperial tea," served in the balcony overlooking the illuminated gardens, which might have been celebrating the Feast of Lanterns, so brilliant and beautiful were they. In Pekin this tea is said to cost eight shillings a pound. It is never sent to Europe, probably because our custom of adding sugar and milk to an infusion of tea prevents any appreciation of the very delicate and delicious flavour of these choicest of leaves, which are dried in the sun instead of over a fire. Each person's infusion of tea is made in a separate little china cup covered with a saucer, and this is poured gently into another cup, with the saucer slightly tilted, so as to prevent the escape of the leaves, by the attentive Chinaman, who volunteered pleasant remarks and explanations of the customs of his country in broken English. Towards the conclusion of the feast the musicians outdid themselves in noise, but their efforts are so excruciating that they play only for two minutes at a time by a sand-glass. A sort of mimic opera is also introduced, in which the chief actor, who gesticulates and writhes about in an extraordinary manner, never utters a sound, but follows the noises and speeches made by a person behind him partly hidden from view. The finale of this unique performance was even more alarming than the commencement, and sounded as if every plate and dish in the establishment were suddenly smashed, ending in a great flourish and whistle as of a terrific railway accident. Chinese applause does not consist in any of the ordinary demonstrations of satisfaction such as clapping of hands or stamping of feet, but in a sort of cynical and rapid ejaculation of the sounds "Hi Haw," "Hi Haw," on the part of an appreciative audience. A visit to this unique restaurant is quite worth making, and the repast is not more expensive and far more curious than that served under the name of the club dinner in the rooms over the conservatory which is thought to be the *chef d'œuvre* of the contractors.

In conclusion it may be well to say that three little handbooks on cookery are the outcome of the Exhibition. An excellent little book "On the Principles of Cooking," by Sept. Berdmore, published by Clowes & Co., contains many valuable suggestions and much interesting and useful information. "Food and Cookery for Infants and Invalids," by Catherine Jane Wood, is full of useful hints, but there are some errors, and far too much preaching to make it an acceptable teacher to the majority of those who have the care either of infants or invalids. Some of the advice given would come better from the doctor than the nurse. The simple recipes for soups, broths, jellies, &c., at the end are quite reliable and good. Then there is a collection of "recipes for cheap dinners," as served in the dining-rooms of the Exhibition by Mrs. C. Clark, the Lady Superintendent, which represents dishes served at the sixpenny dinners to be had there daily. They are wholesome and satisfying, though not, of course, luxurious.

GENERAL CORRESPONDENCE.

REMOVAL OF UTERINE APPENDAGES FOR MYOMA.

[To the Editor of the Medical Times.]

SIR,—Sir Spencer Wells has remarked that "vague unsupported assertions have little influence upon the opinion of a thoughtful or sceptical profession." By way of supplying something so definite as to be "beyond the reach of scepticism," Mr. Lawson Tait relates the case of a woman, aged 47, from whom he removed the uterine appendages in June, 1881, to relieve profuse menorrhagia and intense pain associated with a large uterine tumour. The woman died last month, and the myoma had shrivelled to "less than a tenth of its size three years ago." But who can say how far this was a change frequently seen in such cases in women between 47 and 50 years of age, who have undergone no operation? Again, he says, "this woman suffered for ten days from symptoms of intestinal obstruction," adding, "I performed enterotomy, but she survived the operation only some fifteen hours." Can anything be more vague? What part of the intestine did he cut into? Did he close the opening by suture, or form an artificial anus? What was the cause of obstruction, and was it removed by enterotomy? And might not the woman have been alive now if she had been treated by opiates and her abdomen not opened?

Yours, &c.,
F.R.C.S.

[To the Editor of the Medical Times.]

SIR,—Mr. Lawson Tait has sent to the College of Surgeons a preparation which, he says, proves that after removal of the uterine appendages, a uterine tumour has shrunk, in the three years between the operation and the death of the patient, to a tenth of its former size. He describes it as now the size of a small orange. At the time of operation he says it was just above the umbilicus. The tumour has contracted under the action of the spirit in which it is preserved, but it is now as large as a full-sized orange—and it measures three inches in one diameter, by four inches in the other. Of what size must the abdomen of the woman have been, if a tumour measuring 40 inches by 30 only reached two inches above her umbilicus? Is Mr. Tait's statement "vague,"—or can he suggest a more appropriate designation?

I am, Sir, Yours, &c.,
AN ANATOMIST.

INVENTIONS AND IMPROVEMENTS.

A NEW ANTISEPTIC VAPORISER.

By R. FITZROY BENHAM, M.R.C.S., &c.

SOME twenty years since, when a lad, it occurred to me that in order to render the atmosphere pure in the sick and other apartments, certain disinfectant agents should be mingled with water, and vaporised by raising the temperature to a little above the boiling point of the latter. I accordingly constructed an apparatus after various artistic designs, which was made to contain the solution in a closed chamber, with a vent-hole of only just sufficient size to allow the steam to escape at such a pressure as would cause both the disinfectant and the water to be equally diffused—the boiling point of the former, for instance, carbolic acid, being in excess of that of water. Being acquainted with

the theory upon which "Nero's engine" was constructed, it also occurred to me that by balancing a small tube on a pin projecting from the top of the apparatus, the steam after leaving the vent-hole might, in its effort to escape, tend to form a vacuum and force its way, with the air, into the tube, when the latter would revolve with considerable rapidity, and in doing so would diffuse or spread the steam in a way no other means could effect compared with the size and portability of the apparatus.

Not being at the time a member of the Medical Profession, it did not occur to me to direct the attention of the Medical Journals to my invention, though many scientific men who saw it pronounced it to be an admirable apparatus for disinfecting sick chambers and the like. As an amusing scientific contrivance, it met with incredible success, thousands of gross being sold at prices varying according to the quality and beauty of the design. I may add that, besides other large areas, the Agricultural Hall at Islington, was disinfected and perfumed in this manner, namely, when the Messrs. Sanger produced their equestrian and other entertainments, a fact which was noticed in all the leading daily papers.

Now that the germ theory is fully established, as regards pulmonary and other diseases, and it has been clearly demonstrated, times without number, that it is possible with appropriate means to abate or modify the development of such organisms by means of suitable antiseptics—spread, so to speak, in the atmosphere in an effectual manner, I am induced to bring before the profession an inexpensive apparatus which will, I hope, fully carry out the most sanguine expectations of those who advocate this

method for the diffusion of such antiseptic agents. Before, however, describing the details of the apparatus, to which I have just referred, it may be as well to note, that some antiseptic agents, carbolic acid foremost, do not become converted into vapour at ordinary temperatures—hence the objection, so far as my experience goes, of using the various forms of inhalers; but even apart from this, the invalid cannot constantly wear an inhaler, no matter how comfortable it may be, and during this period he ceases to breathe air rendered antiseptic. So also by burning the antiseptic we do not render it volatile, hence we do not render it antiseptic, except to the extent that a certain amount escapes unburnt and is thus diffused. Again, by vaporising a solution in the form of spray it does not volatilise to any great extent, since the dew settles quickly on the nearest surfaces, and does not rise and diffuse itself as the vapour of steam does, nor does the sprinkling of solutions on clothes cause diffusion of the agent for the same reason. Recently, however, I have read several articles in the various medical journals, written by gentlemen who advocate the mixture of disinfectants, in various ways, with the steam issuing from an ordinary bronchitic kettle, and though this somewhat carries out the principles of which I advocate, it is not always convenient to have a fire burning, in order to keep the water boiling, in the room of the invalid, especially in hot weather.

Remove the balance-tube and feeder-screw, and charge the boiler about three-fourths full of a solution of Calvert's pure phenol, 1 in 50, then replace the former. About three-fourths fill the lamp with methylated spirit and light it, which will cause, when the steam is generated, the balance tube to revolve with great rapidity for a considerable time, and thus most effectually spread the vapour over the entire apartment. Other disinfectants and perfumes may be used in a similar manner, but as most of them are more volatile, especially the latter, they will be more rapidly vaporised than the water, hence it is preferable to add only the essential oils of perfumes instead of with spirit to the water to make the solution.

In conclusion I may state that Messrs. C. Wright & Co., of 108, New Bond Street, are the makers of the apparatus in various sizes.

FLETCHER'S SYRUPS OF THE BROMIDES.

The syrups of the bromides (Syrupus Ferri et Quiniæ hydrobrom., and Syrupus Ferri et Quiniæ et Strychniæ hydrobrom.), which have been introduced by Messrs. Fletcher, Fletcher, & Stevenson, of Holloway, N., have only to be made known to the profession to secure a large sale. They are well-prepared, keep well, and are as palatable as any combination of bromine and quinine can be expected to be.

HARTMANN'S WOOD WOOL AND HYGIENIC WOOD WOOL DIAPERS.

The wood wool prepared by Paul Hartmann, of Heidenheim, Germany, has been known for some years on the Continent as an excellent material for dressing wounds. The value of prepared wood as a dressing material was discovered by Dr. Walcher, assistant in Professor Bruns' clinic at Tübingen, and the discovery was turned to account by M. Hartmann, who succeeded in producing a soft and pliable substance to which he gave the name of sublimate wood wool. This material has been used extensively by Professor Bruns who employs it as a substitute for the gauze of the typical Listerian dressing. It is so flexible that it can be tightly bound on to the wound without danger, it rapidly absorbs and gives off moisture, thus fulfilling, according to Dr. Bruns, "the two great essentials of a good dressing material—that it should be dry and seldom need changing."

Recently this material has been utilized for the purpose of the so-called hygienic diapers, which consist of a pad containing 90 per cent. of wood wool mixed with 10 per cent. of cotton wool and impregnated with 0·3 per cent. of corrosive sublimate. It will be found that they absorb discharges readily, and prevent any offensive odour; but their great merit is that they can be burnt immediately after use, a custom which we venture to say will one day become universal. They will be found a great comfort by ladies suffering from excessive or offensive losses.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.

The ordinary meeting of the Council was held at the College on Tuesday last, August 5th. The Council confirmed their resolution of the previous meeting for removing Washington Evans from the roll of Members of the College under Clause 2, Section XVII, of the By-Laws, for unprofessional advertising and publication. The honorary medal of the College was presented to Sir Erasmus Wilson. An *honorarium* of 50*l*. was voted to Dr. Garson for his services in the museum in the interval between Professor Flower's resignation and the appointment of his successor, during which time he (Dr. Garson) took charge. The vacancy which will occur in the Court of Examiners by the expiration of Mr. John Wood's term of office, was announced. Mr. Wood is eligible, and will most probably apply for re-election. The vacancy will be filled at the next meeting of the Council, which will not take place until the third Thursday in October (the 16th). The Council then adjourned.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following have been admitted Licentiates :—

George Leslie Airth, M.D. Toronto, 59, St. Peter Street, E.; William Wilfred Banham, Worsborough Dale, Barnsley; Gilbert Lacy Barritt, Waterside, Todmorden; Frederick Augustus Newton Bateman, 62, Pall Mall, S.W.; George Russell Beardmore, 328, Upper Street, N.; Edgar Beaumont, 30, Gipsy Hill, S.E.; James Francis Bell, 12, Vicar's Road, N.W.; Charles Walter Biden, 11, St. Mary's Road, S.E.; Albert Bowhay, Gunnislake, Tavistock; Richard William Brogden, 2, Grove, Clapham Road, S.W.; Ernest Ebenezer Bronstorph, M.D. Montreal, 19, Philpot Street, E.; William McEnery Brown, M.D. Toronto, 59, St. Peter Street, E.; Richard Henderson Castor, 44, Ainger Road, N.W.; Herbert William Chambers, Lowestoft; Arthur Ward Collins, Rainhill, Prescot; George William Collins, 66, Adelaide Road, N.W.; James Ralph Collyer, Enfield; Sidney Ernest Chaddock, 9, Milman Street, W.C.; John Charles Davies, Rhos, Ruabon; Pedro Louis De Montbrun, 19, Porteus Road, W.; Cadwallader Edwards Evans, Westbury-on-Trym; Thomas Frederick Forster, 88, Guilford Street, W.C.; Henry Arthur Fotherby, St. George's Infirmary, Fulham Road, S.W.; Alfred Henderson Fowler, Guy's Hospital, S.E.; Thomas Preston Gostling, University Hospital, W.C; Edward Campbell Greene, 29, Rowan Road, W.; Charles Henry Hale, 14, Elgin Road, W.; James Harvey, 9, Larkhall Lane, S.W.; Arthur Hillaby, 59, Manor Road, S.E.; Thomas Johns Hitchins, Broadfield, Crawley.; Francis Rowland Humphreys, Guy's Hospital, S.E.; Edwin Guy Hunt, 46, Guilford Street, W.C.; Richard Nelson Jones, 1, Baron Court Chambers, S.W.; John Rushworth Keele, Southampton; Herbert Arthur Kent, Salisbury; Jamsetjee Framjee Kolapurvala, 11, Malpas Road, S.E.; Cawas Lalcaca, 3, Whitehall Gardens, S.W.; James William Lichfield, 16, Talgarth Road, W.; John Marriott, 22, Percy Circus, W.C.; Jafarkuli Faredunbeg Mirza, 84, Richmond Road, W.; Robert Everard Molesworth, 12, Belmont Road, S.W.; George Alfred Everitt Murray, St. Bartholomew's Hospital, E.C; Thomas Horrocks Openshaw, Poplar Hospital, E.; Percy Sprague Oram, 315, Amhurst Road, N.; Thomas Godfrey Parrott, Aylesbury; John Dudley Price, Waddam's Pool, Dudley; Charles Cooper Reilly, 76, Denbigh Street, S.W.; James Reid Roberts, 3, Vernon Chambers, W.C.; Owen William Roberts, 60, Cambridge Gardens, W.; John Valentine Salvage, 2, Lancaster Road, S.E.; Charles John Sharp, 9, Normanby Place, Liverpool; Harry Charles Costello Shaw, Kingston-on-Thames; Edward Arnold Cloete Smith, Shooters Hill; Howard Lyon Smith, 80, Tollington Park, N.; Arthur George Southcombe, St. Bartholomew's Hospital, E.C.; John Stevenson, 141, Tachbrook Street, S.W.; Andrew Stewart, M.D. Montreal, 31, Great Coram Street, W.C.; Hugh Champneys Thurston, 7, Nicholas Street, E; Frederick Adolphus Trevan, Melville Hospital, Chatham.; Robert Trevor, 42, Halsey Street, S.W.; Arthur Muriel Watkins, 61, Guilford Street, W.C.; John Arthur West, Bickley Park; Ezra Herbert Williams, M.D. Toronto, 54, St. Peter's Road, E.; Arthur Henry Wilson, 11, Abercromby Square, Liverpool.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 31st ult., viz. :—

Messrs. Frank Fratman, Bristol; W. L. Blight, Sladesbridge, Cornwall; A. L. Scott, L.S.A., Dunmow, Essex; H. C. Chapman, St. Mary's Terrace; W. H. Tomlins, L.S.A., Rutland Street, N.W.; C. H. Mayer, L.K.Q.C.P.I., Sydney, N.S.W.; W. H. Pinches, L.R.C.P. Edinb., Fulham; Alexander Harper, Hertford Street, Mayfair; J. A. P. Smith, Granville Square; C. J. Heath, Cromwell Road, W.; Edward France, Sheffield; W. H. Hiddingh, Balham; Frank Percival, Leinster Square; R. A. Baillie, Blackheath; G. C. Wilkin, Hyde Park Street; and A. H. Stewart, Colville Terrace.

The following passed on the 1st inst., viz. :—

Messrs. N. G. Gilkes, L.S.A., Leominster; E. J. David, L.S.A., Pontypridd; L. J. Kidd, Cambridge Street, W.; F. A. Priug, L.S.A., Exeter; Rowland Hill, Beeralston, Devon; C. J. Arkle, L.S.A., West Derby, Liverpool; C. C. Caleb, M.B. Dush., Allahabad; and W. H. Wright, L.K.Q.C.P.I., Liverpool.

The following passed on the 4th inst., viz. :—

Messrs. W. P. Squire, Torquay; W. L. Livermore, L.S.A., Finsbury Park; E. J. Penny, L.S.A., Dorchester; C. S. Sherrington, L.R.C.P. Lond., Ipswich; Harry Appleton, L.S.A., Granville Square; John Marriott, L.R.C.P. Lond., Leicester; and W. H. Haw, L.S.A., Cape of Good Hope.

The following passed on the 5th inst., viz. :—

Messrs. J. S. H. Roberts, L.S.A., Swansea; E. H. Phillips, L.S.A., Brighton; L. M. Guilding, L.S.A., Reading; A. C. Wey, L.S.A., Plymouth; J. P. W. Gray, L.S.A., Barnsbury Park, N.; William Windley, L.S.A., Nottingham; G. A. Bolton, Surbiton, and W. L. W. Marshall, L.S.A., Brixton Rise.

The following passed on the 6th inst., viz. :—

Messrs. E. J. Foot, L.S.A., Bigbury, Devon; Henry Cropley, L.S.A., Swaton, Lincolnshire; H. W. G. Mackenzie, M.B., Cantab, St. Stephen's Terrace, W.; W. G. Weaver, L.S.A., Hereford; and T. P. Beddoes, Church Stretton.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 31st ult. :

Samuel Brookfield, Dresden, Staffordshire; William Henry Carrington, 15, St. Thomas Street, S.E.; Thomas Webb Fowler, 381, Summer Lane, Birmingham; Gilbert Capel Hall, 44, Bath Row, Birmingham; Walter Herbert Haw, 3, Mecklenburgh Street, W.C.; Frank Lane, 11, Bedford Road, Tottenham; William Lawrence Wright Marshall, Brixton Rise, S.W.; Charles Lever Pinniger, 17, Bennett Park, Blackheath; William Skilbeck Stables, 19, Alfred Street, Bath; Frank Marsh Wright, Bottesford, Nottingham.

The following gentleman also on the same day passed the Primary Professional Examination :—

Harry Brandreth Lavies, King's College Hospital.

UNIVERSITY OF ABERDEEN.—During the past year the following candidates received Degrees in Medicine and Surgery :—

The Degree of M.D. :

Alexander Theodore Brand, M.B., C.M., Driffield, Yorkshire; William Carnegie Brown, M.B., C.M., Penang; Morgan Davies, M.B., C.M., Llangwyryfon, Cardiganshire; Frederick John Fehrsen, M.B., C.M., Kingston, Jamaica; Sylvester Williamson Findlater, M.B., C.M., Dufftown; Edward Footner, M.B., C.M., Brigade Surgeon; Joseph Willoughby Hodgson, M.B., C.M., Exmouth, Devon; Timothy Siddall Jones, M.B., C.M., Swansea; Edward Knowles, M.B., C.M., Birkenhead; George Herbert Le Motteé, M.B., C.M., Army Medical Department' Chatham; Charles Low, M.B., C.M., Arbroath; James Millar, M.B., C.M., Arbroath; John Hay Moir, M.B., C.M., Burton-on-Trent; John Murray, M.B., C.M., Surgeon Major, Ipswich; Alexander Nicol, M.B., C.M., Inverurie; Henry Astley Phillips, M.B., C.M., Waterbeach; James Bernhardt Klingner Robb, M.A., M.B., C.M., Montrose; Charles Lloyd Tuckey, M.B., C.M., London; James Hutchinson Walker, M.A., M.B., C.M., North Borneo; Percy Roberts Wilde, M.B., C.M., Bath.

The Degrees of M.B. and C.M.:

Henry M'Kenzie Adamson, Morphie, Montrose; George Henry Allden, Southampton; John Hector Anderson, Aberdeen; Joseph Anderson, Preston; Albert Henry Barrett, Wallingford, Berks; Christopher George Battiscombe, Blackheath; Francis Alexander Bennet, M.A., Cullen; James Wilson Bett, Dundee; William Ronaldson Clark, M.A., Edinburgh; James Will Cook, Allness; Alexander Mitchell Cowie, Mortlach; James Forsyth Craig, M.A., Leslie, Insch; George Burnett Currie, M.A., Aberdeen; Heury Moger Cyril Dalton, Newcastle, New South Wales; Alexander Gordon Davidson, M.A., Wartle, Aberdeenshire; George Duffus, Cullen; Alexander Gray Duguid, Longside, Aberdeenshire; Walter Angus Elmslie, Resthwet, Chapel of Garioch; Charles Albert Falkner, Rajahmundry; John Andrew Fehrsen, Graaf Reinet, South Africa; William Revely Forster, Blyth, Northumberland; Thomas Best Gibson, M.A., Aberdeen; John Gordon, Keith; Thomas Bell Graham, Ecclefechan; Andrew Grant, Balmoral; John William Harrisson, Sandwich, Kent; Charles Robert Lyall, Aberdeen; Stuart Macdonald, Elgin; Frank Innes Mackintosh, M.A., Deskford, Cullen; Alexander Maclean, F.R.C.S. Edin., Thurso, Caithness; Andrew Anderson Maclennan, Nairn; George Milne, Methlic; James Mitchell, Aberdeen; James Mitchell Munro, Inverurie; Alexander Murchison, Lochcarron; Eapen Poonen, B.A., India; Robert Dowell Presslie, Aberdeen; Alexander Reid, Auchindoir; Irvine Kempt Reid, Aberdeen; Alfred Ernest Roberts, London; William Robertson, M.A., Rathen; John Russell, Longhope, Orkney; William Ledingham Ruxton, West Riding Asylum, Wakefield; James Savege, Montrose; Patrick George Simpson, Aberdeen; William Leith Ireland Sutherland, Aberdeen; Herman Thiele, Bermuda; Leslie Fyfe Walker, Aberdeen; John Eustace Webb, Windsor; James Will, Ellon; John Thomas Windle, Burnley; James Martin Young, Boyndlie, Fraserburgh.

Of the above candidates,

George Henry Alden; William Ronaldson Clark, M.A.; Thomas Best Gibson, M.A.; John Gordon; Alfred Ernest Roberts; James Wills

received their Degrees in Medicine and Surgery with Honourable Distinction.

The John Murray Medal and Scholarship was awarded to

Arthur Greatorex Smith,

and will be presented to him along with his Diplomas on his attaining the necessary age. At the same time

Charles Gordon Bennett, Arthur Stephen Inglis, John Charles Davidson Irvine

were certified as having passed all the Examinations, but did not Graduate.

UNIVERSITY OF GLASGOW.—The degree of Doctor of Medicine has been conferred on the following :—

*Robert Allan, M.B., Scotland; James Dunlop Boyd, M.B., Australia; David Donald, M.B., Scotland; Mark Kippax Hargreaves, M.B., England; John Goff, M.B., Scotland; John Robertson Lewis, M.B., Scotland; †George S. Middleton, M.A., M.D., Scotland; Robert Miller, M.B., Scotland; William Morrison, M.B., Scotland; Angus Macphee, M.B., Scotland; Peter Caldwell Smith, M.A., M.B., Scotland; †John Lindsay Steven, M.B., Scotland; James Thompson, M.B., Scotland; James Wills, M.B., Scotland.

* Commended for Thesis.
† Highly commended for Thesis.

The degrees of Bachelor of Medicine and Master in Surgery have been conferred on the following, in addition to the list published in our last issue :—

William M'Crackeu, Scotland; Thomas C. M'Culloch, Scotland; Roderick Macdonald, Scotland; Alexander MacDougall, Scotland; Duncan MacGilvray, Scotland; Ernest MacKenzie, England; Charles Mackinnon, M.A., Scotland; Donald J. Mackintosh,

Scotland; Digby M. Macphail, Jamaica; Alexander M. Macrae, Scotland; Alexander B. Paterson, India; Alexander Peacock, Scotland; William G. Pretsell, Scotland; James Ralley, Scotland; William Rankin, Ireland; John O. Reddie, Scotland; John Ritchie, England; Alexander Robertson, Scotland; Frank Russell, Scotland; Henry Rutherfurd, M.A., Scotland; Gavin S. Scott, Scotland; Robert Scott, Australia; Miller Semple, Scotland; Robert M. Service, Scotland; Mark Sharman, England; James Shaw, Scotland; John Sinclair, Scotland; William Muir Smith, Scotland; Wm. F. Somerville, M.A., B.Sc., Scotland; Walter W. Spence, Scotland; Francis Taylor, Scotland; Wm. C. Taylor, Australia; Joseph Thornley, England; George B. Todd, Scotland; Allan Watt, Scotland; John White, Scotland; George Wilson, Scotland; James Wilson, M.A., B.Sc., Scotland.

Faculty of Physicians and Surgeons of Glasgow.—The following candidates passed the final examination at the July sittings of the Examiners, and were admitted Licentiates of the Faculty:—

Frank S. Barnett, Stoke Newington; D. M. Barry, West Drayton; Alex. C. Boothman, Glasgow; Samuel B. Fairley, Birmingham; A. G. Goodwin, Glasgow; David Jameson, Newtonards; John G. Margenont, Ceylon; Alfred Taylor, Bolton; Ernest W. C. Wilkinson, Glasgow.

The following passed the final examination for the double qualification and were admitted Licentiates of the Faculty and of the Royal College of Physicians of Edinburgh:—

John George Anderson, William Drysdale, J. S. Forrest, J. Jones, W. Jones, Rees Morgan, J. T. Necon, John H. Owen, all of Glasgow; S. Hallock, and O. Johnson, of Edinburgh.

King and Queen's College of Physicians in Ireland.—The following Licentiate in Medicine having complied with the by-laws relating to Membership, pursuant to the provisions of the Supplemental Charter of December 12, 1878, has been duly enrolled a Member of the College:—

John Bellew Kelly, Lic. Med., Drogheda.

At the Quarterly Examination for the certificate in Sanitary Science granted by the College, held on Thursday and Friday, July 10th and 11th, the undermentioned candidate was successful:—

Thomas Robert Judson, M.R.C.S., Eng.

At the Quarterly First Professional Examination, held on Monday, July 7th and following days, the undermentioned candidates were successful:—

Julia Maria Brinck, London; Emma Littlewood, London: Izset Mead, London.

At the usual Monthly Examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, July 7th, 8th, 9th, and 10th, the successful candidates were the following:—

For the Licence to Practise Medicine:

George Stamer Browning, Croome, county Limerick; Alexander Edward Carte, Dublin; William Henry Clarke, Manchester; James Vance Collins, Dublin; George Patrick Cope, Dublin; Thomas Joseph Daly, Mullingar, county Westmeath; Vernon Kitchen Dearden, Manchester; Thomas Francis Griffin, Buenos Ayres, South America; Hudson Hairsine, Howden, Yorkshire; Richard A. Hayes, M.D., Univ. Dub., Dublin; Thomas Francis Higgins, Manchester; John Colclough Hoey, Kingstown, county Dublin; Denis Kennedy, Rathmines, Dublin; Frederick Duncan Lawson, Rathmines, Dublin; Patrick William Maxwell, M.B., Univ. Edin., Dublin; Michael Alcock Ottley, Sheffield; Robert Chambers Owen, Liverpool; James Robinson Phillips, Aughnacloy, county Tyrone; William Henry Banner Robinson, Dublin; Agnes Russell, Brighton; John Richard Rygate, Cambridge; Francis William Sullivan, Navan, county Meath; John Williams, Bodedery, Anglesey.

For the Licence to Practise Midwifery:

George Stamer Browning; Alexander Edward Carte; William Henry Clarke; James Vance Collings; Thomas Joseph Daly; Vernon Kitchen Dearden; Thomas Francis Griffin; Thomas Francis Higgins; Denis Kennedy; Frederick Duncan Lawson; John Joseph Lyons, Kilkenny; Thomas Joseph McGrath, Golden County, Tipperary; Michael Alcock Ottley; Robert Chambers Owen; William Henry Banner Robinson; Agnes Russell; John Richard Rygate; Henry Shackleton, M.D., Univ. Dub., Dublin; Francis William Sullivan; John Williams.

Naval Medical Department.—The following appointments have been made at the Admiralty:—W. J. Eames, Fleet-Surgeon, additional, to the *President*; and T. L. Horner, Staff-Surgeon, additional, to the *President*.

Army Medical Department.—Brigade-Surgeon Randolph Webb to be Deputy Surgeon-General, *vice* W. Stewart, M.D., granted retired pay; Brigade-Surgeon Richard Chapman Lofthouse, M.D., is granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Albert Stanley Knight Prescott to be Brigade-Surgeon, *vice* R. O. Hayden, retired upon temporary half-pay; Surgeon-Major John Colahan, M.D., to be Brigade-Surgeon, *vice* R. Webb, promoted; Surgeon-Major Thomas Walsh to be Brigade-Surgeon, *vice* J. H. Whittaker, granted retired pay; Surgeon-Major David Arthur Leslie, M.D., is granted retired pay, with the honorary rank of Brigade-Surgeon.

British Medical Service.—The following Surgeons on probation in the Medical Department of the British Army were successful at both the London and Netley Examinations. The marks shown are those which were gained at the London Examination; the order of position not being affected by the marks gained at the Netley Examination:—J. R. Barefoot, 2,440; R. H. Clement, 2,420; G. D. Hunter, 2,335; W. C. Beevor, 2,300; L. E. Anderson, 2,275; G. B. Russell, 2,250 (gained the Montefiore Second Prize); A. E. C. Spence, 2,220; J. R. Mallins, 2,200; R. J. McCormack, 2,180; H. N. Thompson, 2,169; J. I. P. Doyle, 2,145; N. Manders, 2,120; L. R. Colledge, 2,110; S. F. Freyer, 2,075; C. Birt, 2,070 (gained the Parkes Memorial Bronze Medal); R. S. F. Henderson, 2,020; H. Mitchell, 2,000; S. Butterworth, 1,990; C. J. Holmes, 1,930; I. R. Lane, 1,920.

Indian Medical Service.—The following Surgeons on probation in Her Majesty's Indian Medical Service were successful at both the London and Netley Examinations. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—J. H. T. Walsh, 5,517 (gained the Herbert Prize of 20*l.*, with the Montefiore Medal and Prize of 20 guineas, and the Martin Memorial Gold Medal); H. Hendley, 4,879 (gained the Director-General's Prize in Pathology); H. E. Banatvala, 4,606; G. H. Fink, 4,423; W. G. P. Alpin, 4,146.

Army Medical School, Netley.—The forty-eighth session of the Army Medical School terminated on the 4th instant, when the results of the final examinations for commissions in the Medical Departments of the British and Indian Services were declared, the prizes awarded, and the business of the term concluded. Lieutenant-General Sir George Willis, K.C.B., Commanding the Southern District, attended by his Staff and the Principal Medical Officer of the District, arrived at Netley from Southsea at 12.30 p.m., and immediately proceeded to the Lecture Hall, where the staff of Netley Hospital and their guests, with the Professors of the school and other visitors were assembled. The Director-General of the Medical Department and the Physician to the Council of India were unable to attend, and we regret to say that Surgeon-General Murray, Principal Medical Officer of the Royal Victoria Hospital, was also absent from indisposition. The usual official documents reporting the work of the session were read, with the names of the surgeons on probation for both services, reported fit to receive commissions according to the subjoined list. It will be seen that the Herbert Prize of 20*l.*, the Montefiore Medal, with the same sum in money for military surgery, and the Martin Memorial Gold Medal for military medicine were won by Mr. J. H. T. Walsh, of H.M.'s Indian Service. The Second Montefiore Prize for military surgery was gained by Mr. G. B. Russell, of the Army Medical Department. The Parkes Memorial Bronze Medal for hygiene was awarded to Mr. C. Birt, of the British Medical Service. Mr. H. Hendley, of H.M.'s Indian Medical Service, was the successful competitor for the Director-General's Prize for Pathology. Sir George Willis, after presenting the prizes, addressed the gentlemen whose course of study at Netley had been successfully ended. The general offered them his hearty congratulations, and in the kindest manner gave them some useful hints as to their future career in the Service, the result of much experience in peace and war, urging them never to relax their efforts to keep abreast of a constantly advancing profession, reminding them that, like officers in other branches of the Service, their efforts in this direction would, under recently published regulations, be tested before promotion. Sir George hoped they would cultivate good relations with other branches of the Service, by whom their skilful services would be appreciated, and wished them one and all a successful and honourable career. Professor Longmore repeated the good wishes and congratulations of himself and his colleagues, and in their name bade them a hearty farewell, declaring the business of the

session ended. The company then adjourned to the handsome mess-room of the Department, where a sumptuous luncheon was served. Among the guests were some of the officers of two ships of the United States Navy, one, the *Lancaster*, bearing the flag of Rear Admiral Commander Nicoll Ludlow.

The Royal College of Physicians and the Cholera.—The following Memorandum on Cholera has been drawn up by the Committee recently appointed for the purpose, and has been issued by the College: "The Royal College of Physicians of London, feeling that in the event of the occurrence of Epidemic Cholera in England, the public may properly look to them for advice and guidance, deem it to be their duty to issue the following instructions. These instructions are not intended to supersede the necessity of immediate medical assistance, or to impose any authoritative restrictions on medical practitioners. The College would, above all things, earnestly impress upon every person the extreme value and importance of sanitary measures in preventing the invasion and limiting the spread of the epidemic. Large experience has shown that nothing is of more importance than to secure a due supply of pure water, and to prevent all possibility of its contamination with sewage, or impurities derived from other sources. Free ventilation, avoidance of overcrowding, great cleanliness, and thorough drainage in towns, villages, and dwellings, are also of urgent necessity. The local sanitary authorities or their medical officer should be consulted on such questions. Excess in eating or drinking, or long fasting should be avoided. The moderate use of cooked vegetables, as well as of animal food, is recommended, and, in general, such a plan of diet as each individual has learnt by experience to be most conducive to his health; for any considerable change in the diet to which a person has been accustomed is seldom advisable during the prevalence of an epidemic. Milk and also drinking water should be boiled. The vessels used for the storage of food or drink should be cleansed with boiling water. Raw vegetables and unripe or unsound fruit should not be eaten. Exhaustion from fatigue, long watching, or deficiency of food, and exposure to cold and damp, render persons especially liable to cholera. The College would therefore urge the necessity of supplying those in need with food, fuel and clothing. Persons engaged about those affected with cholera are not, with proper precautions, more liable than others to the disease. The fear of direct infection may, therefore, be practically disregarded; but it is absolutely necessary that some one or other of the ordinary disinfectants, such as carbolic acid, should be applied abundantly to the excretions, soiled linen, and utensils, before these are removed from the apartments of the sick. Extreme cleanliness and disinfection of the discharges from the stomach and bowels cannot be too much insisted upon, as it is generally believed that the disease is disseminated through these. The College would earnestly insist upon the importance of organizing, in any district infected by cholera, the system of house to house visitation, and of establishing temporary hospitals for the reception of patients who cannot be properly treated in their own homes. The College would further suggest that such temporary hospitals should be numerous rather than large, and so distributed as to make it unnecessary to convey to any great distance those who are stricken by the disease. Ambulances and stretchers for the removal of the sick should be provided. During the prevalence of cholera, any unusual degree of looseness of the bowels, though painless, should not be neglected, and on its occurrence, the patient should immediately go to bed, be kept warm, and medical advice should be at once obtained. Previously to the arrival of a medical attendant, any of the medicines used at other times for checking common diarrhœa may be taken, such as the chalk mixture, or the compound cinnamon powder."

Association Française pour l'Avancement des Sciences.—This body will hold its next meeting at Blois from the 4th to the 11th of September.

Paris Academy of Medicine.—Professor Macleod, of Glasgow, has just been elected a foreign corresponding member of this body. He obtained the votes of 41 of the 54 members who were present, the other candidates being M. Deroubaix, of Brussels, and M. Krassowski, of St Petersburgh.

The Paris Night Service.—Dr. Passant reports that the number of calls for medical aid, during the quarter ending June 30, amounted to 1,730, being a mean of 19·10 per night, in place of 17·55 per night of the corresponding quarter of last year. Of these 1,730 calls, men formed 32 per cent., women 53 per cent., and children under 3 years of age, 15 per cent.

Improved Dwellings Company.—According to the last half-yearly report, just issued, of the Improved Dwellings Company, the mortality in the Company's dwellings had been 15·5 per 1,000, against 20·4 in the metropolis, in face of the fact that the birth-rate has been 37·34 against 33·09 in the metropolis.

An Exhibition of Lepers held in Terrorem.—A unique variety of the moral show has been devised by a Californian, calling himself Dr. O'Donnell. He has secured two Chinese lepers, with a large portfolio of photographs of other cases, and proposes to travel and exhibit them. The show is in the interest of anti-Chinese immigration. Dr. O'Donnell states that there are between 200 and 250 lepers in San Francisco already, and that the disease is increasing.

Water and Constipation.—Dr. Squibb, in his last *Ephemeris*, has a suggestive article on constipation, which he believes in most cases is due to insufficient water in the fæcal mass. The individual does not ingest water enough to supply the blood with its 79 per cent., and therefore the blood absorbs it from the intestinal contents. "Drink water," is Dr. Squibb's motto. It is a good one, but water, as everyone knows, will not cure habitual constipation in a very large percentage of cases.

High Fees in Dentistry.—The *New York Medical Record*, July 12th, refers to a case that is likely to come before the law courts. A dentist had made a charge of 7,000 dollars for four days' work, the patients being three wealthy ladies of one family. The operators were a father and three sons, and the time consumed was four days, with some extra work after hours. The value of the time was fifty dollars per hour for each dentist. The gentleman, who is a foreigner, to whom the bill had been sent, believed that a mistake had been made, and on being assured that this was not so refused payment.

The Pyrennees and the Cholera.—At the suggestion of Dr. Garrigou, of Luchon, Editor of the *Revue d' Hydrologie et de Climatologie Pyrénéennes*, the medical men of the French Pyrennean thermal stations have signed the following protest:—"In the presence of malevolent reports which persons, doubtless interested, have thought proper to spread concerning the Pyrennean thermal stations; the medical men of those stations regard it in the interest of all to protest in mass, and to declare that the sanitary condition of these Pyrennean thermal towns is as perfect as possible. There is no indication of any epidemic whatever." Then follow nearly 100 signatures.

Sir Erasmus Wilson.—Our readers will be glad to learn that at a meeting of the Council of the Royal College of Surgeons of England on Tuesday last, the 5th inst, the honorary gold medal of the College was awarded to Sir William James Erasmus Wilson, a past President of the College, in recognition of his great liberality in his contributions to the museum, in the endowment of the pathological curatorship and in the foundation of the professorship with which his name will always be associated and held in honour. This medal was founded in 1800, when, curiously enough, it was awarded to another Professor James Wilson; in 1822, Mr. James Parkinson obtained it; in 1825, Mr. Joseph Swan, a late member of the Council, won it by his valuable contributions on the nervous system; in 1834, Professor George Bennett, of the University of Sydney, obtained it for his many donations to the museum, as did Dr. W. L. Crowther, of Hobart Town, in 1869; in 1876 it was awarded to Dr. T. B. Peacock.

Bolingbroke House Pay Hospital.—At a special meeting held on August 2nd, with the double object of

improving the finances of the Bolingbroke House Pay Hospital, Wandsworth Common, and of giving it a less local character by extending its sphere of usefulness, it was resolved to open its wards and private rooms for patients sent in under the care of any registered medical practitioner. Hitherto the patients have been attended by an honorary visiting staff, which has given for three years past a constant and efficient attendance at the hospital. At the meeting referred to these gentlemen very kindly facilitated the trial of the new experiment by placing their resignation in the hands of the managing committee.

Hospital Sunday Fund.—A meeting of the Council of the Hospital Sunday Fund was held at the Mansion House on the 31st ultimo to approve the awards for the present year. A report from the committee of distribution was presented, stating that the total sum available for distribution, after allowing sufficiently for liabilities and the usual current expenses, was 31,283*l.* Of that total 29,026*l.* was now recommended to 98 hospitals, and 2,257*l.* to 50 dispensaries. The awards for 18 general hospitals were as follows:—Charing Cross, 700*l.*; French, 200*l*; German, 700*l.*; Great Northern, 200*l.*; King's College, 1,200*l.*; London, 2,900*l.*; Metropolitan Free, 225*l.*; Poplar, 285*l.*; Royal Free, 875*l.*; St. George's, 1,600*l.*: SS. John and Elizabeth, Great Ormond Street, 120*l.*; St. Mary's, 1,050*l.*; Seamen's, 600*l.*; Middlesex, 1,700*l.*; Tottenham Training Hospital, 215*l.*; University College, 1,200*l.*; West London, 310*l.*; and Westminster, 900*l.* Of the special hospitals the City of London Hospital for Diseases of the Chest, Victoria Park, was awarded 820*l.*, and the Hospital for Consumption, Brompton, 1,320*l.* Mr. Custance, the secretary, stated that the fund was at present about 200*l.* in excess of the amount collected in any previous year, and that was quite irrespective of any sum which might be sent to them, according to public announcement, as the proceeds of the recent *fête* at the Health Exhibition. The Rev. R. J. Simpson moved, and Mr. R. Moreland seconded, the adoption of the report and the payment of the various awards, excepting, for the present, that to the North-West London Hospital, where a dispute is now going on as to its management. This was carried unanimously.

The Library of the Obstetrical Society will be closed from August 18th to September 18th.

The Library of Guy's Hospital will be closed on Monday, August 11th, and reopened on Monday, September 1st.

Proving a Will before Death.—"There has been a good deal of discussion," the *Philadelphia Medical Times*, June 14th, observes, "over the bill before the New York Legislature allowing a person to prove his will before his death. It is conceded that it is very desirable to prevent the disgraceful scenes now frequently enacted in the law courts upon the probate of a rich man's will; but there is a great difference of opinion as to the advisability of permitting the contents of a will to be made known prior to the testator's death. The present bill seems to require this to be done, and it is quite likely that a disinclination to have the nature of the distribution known will be as strong in influencing the action of testators as the desire to prevent unseemly wrangles over the will. The most practical proposition seems to be to allow a person to get the decision of a court as to his testamentary capacity, while directing that the will shall not be opened until after the death of the testator."

Branny Foods.—Drs. Randolph and Roussel read at the Philadelphia College of Physicians (*Philadelphia Medical News*, July 12), an important paper derived from an exhaustive examination of what has been written in old and modern times concerning the importance of the bran constituent of wheat as an article of diet, and they arrive at the following conclusions, which, it will be seen, differ much from the views generally entertained:—(1) The carbohydrates of bran are digested by man to but a slight degree. (2) The nutritive salts of the wheat grain are contained chiefly in the bran, and therefore, when bread is eaten to the exclusion of other food, the kinds of bread which contain these elements are the most valuable. When, however, as is usually the case, bread is used as an adjunct to other foods which contain the inorganic nutritive elements, a white-bread offers, weight for weight, more available food than does one containing bran. (3) By far the greater portion of the gluten of wheat exists in the central four-fifths of the grain, entirely independent of the cells of the fourth bran layer (the so-called gluten-cells). Further, the last-named cells, even when thoroughly cooked, are little, if at all, affected by passage through the digestive tract of the healthy adult. (4) In an ordinary mixed diet, the retention of bran in flour is a false economy, as its presence so quickens peristaltic action as to prevent the complete digestion and absorption, not only of the proteids present in branny foods, but also of other food stuffs ingested at the same time. (5) Inasmuch as in the bran of wheat, as ordinarily roughly removed, there is adherent a noteworthy amount of the true gluten of the endosperm, any process which, in the production of wheaten flour, should remove simply the three cortical protective layers of the grain, would yield a flour at once cheaper and more nutritious than that ordinarily used.

APPOINTMENTS.

Baker, Albert de Winter, M.R.C.S. Eng., and L.R.C.P. Lond.—Medical Officer to the Dawlish District, Newton Abbot Union, *vice* Mr. Arthur D. Parsons, deceased.

Biden, Charles, W., M.R.C.S., L.R.C.P. Lond.—House Surgeon to the Children's Hospital, Paddington Green, *vice* F. T. Hebb, resigned.

Hadden, Walter Baugh, M.D. Lond., M.R.C.P.—Physician to the Royal Hospital for Children and Women.

Haines, Alfred Henry, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Tydd District, Holbeach Union, *vice* Dr. O. Meara.

Hough, C. H., M.R.C.S.—Surgeon to the Derbyshire General Infirmary, *vice* J. Wright Baker, resigned.

Humphry, Lawrence, M.B.—Assistant Physician to the Addenbrooke's Hospital, Cambridge.

MacAlister, D. M.D.—Physician to the Addenbrooke's Hospital, Cambridge, *vice* Dr. Paget, resigned.

Newman, Arthur Joshua, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to Farncombe District, Guildford Union.

Pitt, George Newton, M.A. M.D. Cantab., M.R.C.P.—Assistant Physician to the East London Hospital for Children, and Dispensary for Women, Shadwell, E., *vice* Fras. Warner, M.D., resigned.

Popplewell, Thomas William, M.R.C.S. Eng., and L.S.A., Lond.—Medical Officer to the Blisworth District, Towcester Union.

Wood, William, L.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Cranswick District, Driffield Union, *vice* Dr. Richard Wood, resigned.

VACANCIES.

Bradford Friendly Societies' Medical Aid Association.—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by August 14th.

General Hospital for Sick Children, Pendlebury, Manchester.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

Hospital for Consumption and Diseases of the Chest.—Resident Clinical Assistant. Applications by August 16th.

Luton Union.—Medical Officer to the Markyate Street District, *vice* Mr. S. W. Mackey, resigned. Area, 11,274 acres. Population, 3,871. Salary, £87 per annum.

Oundle Union.—Medical Officer for the Weedon District, *vice* Mr. S. Stokes, resigned. Area, 8,980 acres. Population, 1,497. Salary, £40 per annum.

Royal United Hospital, Bath.—House Surgeon. (*For particulars see Advertisement.*)

St. Asaph Union.—Medical Officer to the St. Asaph District and the Workhouse, *vice* Mr. Llewelyn Lodge, resigned. Area, 19,260 acres. Population, 4,241. Salary, £67 per annum. Salary for Workhouse £50 per annum.

St. Bartholomew's Hospital.—Dental Surgeon. Applications with Testimonials must be left, on or before September 4th, at the Clerk's office. Further particulars from Wm. Henry Cross, Clerk.

South Molton Union.—Medical Officer to the Second District and the Workhouse, *vice* Mr. James Flexman, resigned. Area, 17,288 acres. Population, 1,752. Salary, £38 per annum. Salary for Workhouse £40 per annum.

The General Hospital, Birmingham.—Resident Registrar and Pathologist. (*For particulars see Advertisement.*)

University College, London.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

West London Hospital, Hammersmith.—Registrar and Pathologist. Honorarium of £25 per annum. Applications by Aug. 21st.

DEATHS.

Gregory, Bradley, Fleet Surgeon, R.N. (retired), at 5, Northernhay Place, Exeter, on August 1st, aged 47.

Jenkins, Robert Walker, M.R.C.S. Eng., and L.S.A., Medical Officer of Health, New Forest Rural District, at Fawley, Hants, on July 31st.

Marshall, George Henry, M.D., F.R.C.S., at 28, Tisbury Road, West Brighton, on July 31st, in his 71st year.

Renton, Robert, M.D., F.R.C.P.E., at 15, Rothesay Place, Edinburgh, on July 31st, in his 91st year.

NOTES, QUERIES, AND REPLIES.

MEDICAL DIRECTORIES.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—As the time is approaching for the preparation of the new edition of the Medical Directory, I desire to call the attention of the Editors to the desirability of omitting the information contained in the announcement that Mr. A. or Dr. B. is a member of the "Reading Pathological Society," or the "Nottingham Medico-Chirurgical Society." Every respectable member of the profession can be admitted a member of our Local Medical Societies on payment of a guinea; it implies no distinction or compliment whatever, and merely, unnecessarily, increases the bulk of the volume. The absurdity of introducing this kind of information is apparent, and it would be equally appropriate to inform the profession that Mr. A. or Dr. B. is a subscriber to the "Barchester Public Library" or to "Mudie's." In no other country is a Medical Directory encumbered with such irrelevant information.

I am, Sir, yours &c.,
F. R. C. P.

CHEMICALS AND SONG. "THE MARVELS OF THE AMMONIAPHONE."

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR.—Recently was copied into my daily paper an article from the *Pall Mall Gazette*, under the above heading, which I am puzzled to class whether as philosophic bosh emanating from some Philosopher of the University of Laputa, described in the travels of the veracious "Captain Lemuel Gulliver," or whether there is a substratum of fact in the article. How an atmosphere charged with peroxyde of hydrogen and ammonia, with a *soupçon* of some essential oils, will have a potent effect on the larynx, and increase the register of the voice from an imperfect octave, or so, to three octaves, improving also timbre and tone, I am at a loss to conceive. Is it fact or fiction?

I am, Sir, yours &c.,
Plymouth. O.

COMMUNICATIONS RECEIVED—

DR. STEPHEN MACKENZIE, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. J. GREENWOOD, Norwich; THE SECRETARY OF THE FACULTY OF PHYSICIANS AND SURGEONS, Glasgow; THE LIBRARIAN OF THE OBSTETRICAL SOCIETY, London; THE REGISTRAR-GENERAL, Edinburgh; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, Edinburgh; THE SECRETARY OF THE ARMY MEDICAL SCHOOL, Netley; Mr. NOBLE SMITH, London; Mr. H. CAMPBELL POPE, London; THE SECRETARY OF THE ROYAL MEDICAL BENEVOLENT COLLEGE, Epsom; Mr. H. MARKS, London; Prof. VAN OVERBEEK DE MEIJER, Utrecht; THE SECRETARY OF THE HOSPITAL FOR SICK CHILDREN, Gt. Ormond Street, London; Mr. FITZROY BENHAM, London; Dr. CLIFFORD BEALE, Loudon; Mr. JOHANNES ALT, Frankfort; Prof. HUMPHRY, Cambridge; Dr. SAMUEL WEST, London; Mr. CHATTO, London; Mr. WYNTER BLYTH, London; Mrs. LANKESTER, London; Dr. ISAMBARD OWEN, London; Mr. W. HITCHMAN, Liverpool; THE LIBRARIAN OF GUY'S HOSPITAL, London; Mr. J. S. WOOD, London; OUR BELFAST CORRESPONDENT; OUR EDINBURGH CORRESPONDENT; Sir WILLIAM GULL, Bart.; Dr. H. F. BANHAM, Sheffield; Mr. W. N. JACKSON, Oxford.

BOOKS RECEIVED—

A System of Oral Surgery, 4th Edition, by James E. Garretson, M.D., D.D.S.—Picturesque Wales, by Godfrey Turner—Addresses Delivered in the University of Glasgow, by John Young, M.D.—Sanitary Arrangements of Dwelling Houses, by Mark H. Judge, A.R.I.B.A.—Guide to Belfast, &c., by Robert Ester, M.D.—Useless Riches, or the Sacrifice of a Noble Mind—A Popular, Non-technical Treatise on Consumption, by William Dale, M.D.—The Cholera Microbe and How to Meet it, by Charles Cameron, M.D., LL.D., M.P.—Memoria Sulla Cura Dell'Ectropio Citatriziale (Autoblefaroplastia), Pel Dottore Raffaele Castorani.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal——Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Mediciu—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Dietetic Reformer—Analyst—Edinburgh Medical, August—Louisville Medical News—Factory News—Veterinarian, August—Weekblad, &c.—Maryland Medical Journal—Brain, July—Therapeutic Gazette—Glasgow Medical Journal, August—Indian Medical Gazette—Archives Générales de Médecine—Reformed Church Record—Australasian Medical Gazette—Detroit Lancet—Monthly Homœopathic Review, August—Centralblatt für die Gesammte Therapie—Popular Science News—Ophthalmic Review, August—Sessional Proceedings of the National Association for the Promotion of Social Science—Polyclinic.

APPOINTMENTS FOR THE WEEK.

Friday, August 8 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Ceutral London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South Loudon Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, August 9.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Ceutral Loudon Ophthalmic, 2 p.m.

Monday, August 11.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, August 12.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2¼ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, August 13.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, August 14.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES

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Contents.

ON THE INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE.[1]

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Gentlemen, Friends, and Colleagues,—I esteem it a great honour to be deputed to address you on this occasion, and on a matter which promises to contribute to the advancement of medical knowledge by a wider and fuller method than has yet been sufficiently attempted.

The subject of my address is the institution of an International Collective Investigation of Disease. This object, I need not say, is intimately connected with the main purpose of these Congresses, if not indeed in the natural course of things an integral part of them. At present we come together as individual cultivators and practitioners of medical science; each contributing his quota to our knowledge on this or that subject which may or may not have been selected for thesis and discussion beforehand. Nor are our labours, even under these conditions, without excellent results. But a feeling is growing and already wide-spread, that by a more organised combination, a more intimate and better coöperation, not only the members of these Congresses, but all the working members of our profession throughout the civilised world, might sooner or later be organised into a body of fellow-workers, associated for collecting information on medical questions over the widest area.

There is perhaps no profession which enforces upon its individual members so strongly as does Medicine, the necessity of continued observation and intellectual cultivation; and there is no means by which this cultivation can be so well promoted as by meetings like the present, and by the active organisations in the form of committees or sub-committees which we hope and anticipate may spring from them.

The human intellect in its single and separate operation may produce wonderful results. Yet isolated as a man may seem to be in the intellectual labour which occupies him, he makes but little progress apart from the aid and coöperation of other minds which have worked and are working in the same direction. And though doubtless it will always be the privilege of the highest intelligences to clear the boundaries of knowledge, and to throw the rays of their genius into

[1] An Address delivered at the International Medical Congress, Copenhagen, August, 1884.

the surrounding darkness, yet all must be agreed on the great and almost supreme value of the intellectual coöperation of less gifted minds in the simple observation of facts, and especially when the needed facts are scattered over a wide field.

However much apart, as I say, a man may seem in the work of his intellect, he is really much less so than he seems to be; for as we cannot refer the strength of our bodies to any particular food that we have taken, so neither can we track the thoughts of our minds to the sources whence they may have been fed; and if our social nature has been raised from savagery to civilisation by social combinations, it is even more necessary that our intellectual nature should be helped in its growth and nurture by such intercourse and association as are here presented, and which we now propose further to advance.

Our great countryman, Bacon, has not generally been well received in the school of German philosophy, so that I must use some caution in citing him in favour of intellectual combinations in pursuit of the sciences. Still, on thinking over the bearings of Collective Investigation of Disease, I could not but feel that although three centuries have elapsed since he broached this question, and little has been done in it since, we might be about to realise his idea of a Novum Organon, the formation of a New Intellectual Machine for removing and overcoming the obstacles to our medical progress.

The purpose we have before us is no less than this, to enlarge and methodise intellectual coöperation, whereby, not only the active, but the at present inactive, faculties of observation of the wide-spread members of our profession may be combined into one or more lines of energy. I am not unmindful how much this presupposes; how it assumes the combination of exact observation and record, with refined criticism and analysis; how it demands the highest scientific perception, with the humble collection of the meanest facts; how, in fine, it means the development of intellectual combination into many forms of organisation which should be not one but *many instruments of research*. Such a forecast may perhaps lead us to exclaim—"Who is sufficient for these things?" Yet happily the answer is near—time, though short for the individual, is inexhaustible in the race—the intellect is in its infancy—its powers of growth unexhausted; and to these in their evolution there appears to be no limit. The work to be done is unchangeable; and there are eager and willing workers in all lands, who only need the encouragement and direction of the master-minds of medical science to set them to work.

Happily, the phenomena which demand our investigation, though complicated and transient, are, it need not be said, the result of unchangeable laws. The capriciousness of Nature, as we speak of it, is but the weakness of our own sense and understanding; and its so-called mystery and obscurity, but the darkness in ourselves.

The physiologist and the pathologist have to admit that not even in the caprices of man is there capriciousness; that mental caprices have their organic basis; that the whims, the fancies, and the prejudices of the human mind, not less than the changing activities of the functions of his body, or the revolution of the earth on which he lives, are but the resultants of unvarying laws, unchangeable as the fixity of the stars on which he gazes with wonder and admiration.

We may therefore have this encouragement, that when any of our work is done, however small and trifling it may seem, it is done and settled for all time, or at least so long as the laws of organisation remain what they are; that the clearing of a fact in respect of disease will remain an imperishable inheritance of knowledge to those who follow us, so long as there is disease in the world. We may support our labours, therefore, with a feeling of surety that the problem before us is a settled problem, however difficult its solution. Nature will not delude us, however much we may delude ourselves.

A superficial survey of the Sections of this Congress shows that the student of Medicine occupies an unique position in the pursuit of knowledge. For instance, if I turn the leaves of the programme, I find that the Section of Anatomy invites attention to cell nucleus and cell-division, the lowest unit of organisation; and the Section of Psychiatria to the Psychic-Epileptic equivalent, which, as no one will deny, stretches to the other pole of knowledge; hence, surely no man more needs to lay hold of the unchanging idea of law than the student of Medicine, as he ranges from one extreme of observation to another.

In the International Investigation of Disease, the prevalence of mental disorders in different nations will be a subject of enquiry. Also the forms which these maladies take, according to nationality, occupation, stratum of society in which they occur, &c.; the use of stimulants—alcohol, opium, hemp, tobacco, &c. This work obviously lies not only in the physical and physiological conditions of life, but in their intimate correlatives, the facts of psychology. The thoughts of the student of Medicine must, therefore, range from the atoms that build up the textures to the hopes that make the man. And even perhaps further than this, for in most of us the unsatisfied mind cannot answer itself with the measurables and ponderables of physical science, however much it may admit that all else is dependent upon them, but will strive to go behind appearances and feelings to the substratum of their existence, and cannot find rest for its foot until it traces their relation to an unchangeable first cause.

Du Bois Raymond might well remark that the problem of organisation would be comparatively easy if it were unattended with feeling and thought. That it would then, as it were, present us only with an astronomical problem, in which the atoms of things would, after the manner of the heavenly bodies, move on in their several orbits in lines which science might hope to deal with. For it is within the scope of science, even as we now understand it, to track an atom of oxygen, nitrogen, hydrogen, or carbon through its synthesis in a plant to its combination in the elements of brain or muscle, and still on to its resolution and return into its original form, with corresponding evolution of force. But when this shall have been done, we have learnt nothing of pain, nothing of emotion, nothing, indeed, of the science of many of the common facts with which

medicine has to deal every day. How different would be the problem for the physician if disease were unattended by pain or emotion, if the patient were indeed patient as unorganised materials are ; if there were no hopes or fears on the part of the object to be dealt with, and no embarrassment on the part of the practitioner from desire to please as well as to heal ! Quacks would then be banished to limbo. The course of nature could be watched until the equilibrium of health was attained, and the temptations to polypharmacy would be no more. But then, on the other hand, we should have nothing to do with life in its higher form, which is our ever-abiding problem, and we should miss the stimulus of affection, which, like a constant trade wind, carries us forward—at least the majority of us.

If for these preliminary remarks I need any apology, might I not say that I have come from the country of Newton and Harvey, that I have travelled by the home of Spinoza, and that I am speaking in the presence of the countrymen of Descartes and Leibnitz.

Gentlemen, I do not appear here to-day on my own behalf, but on behalf of the Collective Investigation Committee of the British Medical Association.

The British Medical Association is an Association of most of the medical practitioners in the Kingdom of Great Britain and Ireland ; and it has, I believe, affiliated Associations in our Colonies.

It numbers from ten to twelve thousand members, all, or almost all of them, actively engaged in the practice of Medicine.

It is organised into over fifty branches, with their presidents and committees.

These branches have weekly or monthly meetings for the purposes of professional intercourse, and for reading and discussing papers on medical subjects. It has, moreover, a weekly journal of very extensive circulation, which records the transactions of the different branches, and supplies to its members lectures and communications on the most important current subjects in medical science.

This Association has been founded over fifty years.

For some years past, and especially during the last four years, it has been felt that the aims of this great Association might be advanced to a higher point by establishing an organised plan of medical observation amongst its members, and, already, sub-committees to the number of fifty, comprising as many as a thousand members, have been established to carry forward this proposition. I am deputed by the Central Committee of this Association to ask you to-day to extend this combination by establishing an International Committee for the Collective Investigation of Disease, and I trust this may commend itself to the Congress.

Such an International Committee would have objects entirely germane to the recognised purposes of the Congress itself. Probably one might go even further, and say that such an International Committee should form an integral part of these International Medical Congresses, and that their operation would in time become one of the most fertile sources of International Medical Advancement. I am happy to think that but little argument will be required in this assembly to commend this proposition to your favour. Already in Berlin the Verein für innere Medicin has adopted the principle, and has established a committee, after the pattern of the British committee, to carry forward the work. The President of the Society, Professor Frerichs, has given his entire adhesion to the movement, and Professor Leyden has accepted the presidentship of the committee itself, which includes also very distinguished names ; and I hope that one or more of our colleagues from Berlin will to-day add a few words in favour of the proposition I am called upon to make.

In putting arguments forward for the establishment of a National Collective Investigation in its more limited form, it was permissible to insist upon minor advantages to be expected from such association—I refer to its educational value, since it could not but happen that every coöperating member would learn much from the investigations proposed ; and that whilst he promoted science, he would no less promote his own intellectual status.

Again, I pointed out in my Address in London, that the family physician or practitioner has a sphere of observation specially favourable to the study of ætiology, and modes of extension of communicable diseases. He has also special advantages for pathological study, which are not so much afforded to the professor in an university or hospital. It is his privilege to see the earliest beginnings of disease, and to have the opportunity of tracing its evolution and decline, or when so favourable a course does not happen, the steps of pathological progress are before him, whereas at the end of life when the whole organism crushes downwards into a chaos of pathological forms by the advance of disease it is often impossible on the *post-mortem* table to say where the failure began, and how it has advanced. The family physician's observations should thus supply a corrective to a too exclusive mechanical pathology.

Amongst the subjects suggesting themselves to us in England in near relation to this matter, was the formation of life-histories and family-histories in respect of disease, and these could only be obtained through the family physician. If such histories could be widely and accurately recorded, the natural associations of different forms of disease in individuals and families would be made evident, and might afford suggestions as to pathological relations not now suspected—relations between diseases which are separated in Nosological Treatises, but associated in Nature. This mode of enquiry, through family-history, would open a wide page for the record of the *pathology of ailments* ; a page than which there is none more interesting to the practitioner of medicine, since seven-tenths of his work, and perhaps more than this, lie in efforts to correct physiological deficiencies, and to maintain some near approach to the equilibrium of health, which a feeble organism unaided cannot reach. On this part of the field it is that we can study the relations between functional and organic diseases, especially in the range of nervous affections, where the degenerative tissue-changes in one individual of a family may be compared with the physiological disturbances in another. It is also in these family-histories that we might hope to have elucidated the difficulties of *correlated pathologies*. Why, for instance,

in a numerous family, whose members are living under the same conditions, one or two should become the subjects of pulmonary phthisis, one or two the victims of rheumatism, another of epilepsy, whilst the others maintain a healthy equilibrium. If such a history should be repeated in ten thousand families or in a hundred thousand, we surely might hope, by careful collation of the facts, to come to the groundwork of these differences, and to determine the rule which separates the epileptic and the rheumatic from the inroads of phthisis.

So much for the more limited though not less important advantages of National Collective Investigation, but in an International Collective Investigation, the ground widens very much, not only from the different intellectual characters of its working members but also from the greater variety under which disease presents itself.

The first gain, no doubt, will be from the intercourse and reaction of different national modes of thought, with and upon each other. It need not be said that the ways in which any subject may be viewed do not depend upon the subject itself, but upon the varied capacity of the minds brought into relation to it. Minds evolved during ages under special local and national conditions, and educated in lines of their own cannot fail to give new direction and shape to the questions proposed for solution.

Each national mind will feel a different mental necessity. This view might be much further enlarged, if this were the occasion for it. At the Congress in London I endeavoured to show that each nationality produces its own scientific school, and not least in respect of the Science of Medicine. One nationality is more distinguished by its powers of Analysis ; another by its powers of Synthesis ; one is critical, another historical ; one characteristically anatomical, another physiological. Even if this occurred to only a limited degree, there must follow an interchange and fertilization of ideas. And let no one believe that this is a dream. We have reached no more than the threshold of intellectual evolution.

International Associations like this will serve to nurse and nourish these powers in the future. But however this may be, these movements and combinations are in accordance with the spirit of the age. It is on all hands felt and acknowledged that the individual worker, apart from his colleagues, cannot hope to do much in any department of science, and that it is only by combination of members and subdivision of labour that scientific observation can be carried on successfully. The establishment of an International Collective Investigation of Disease, appeals to us from every side ; personally, as through its influence our energies are stimulated, and our intellectual activity varied ; socially, since observations made in one country cannot but correct or support those made in another ; collectively, since science is cosmopolitan, and can only grow well when fed from all sources. It has been objected that the results of Collective Investigation must, from the nature of the case, be inaccurate, superficial, and so far useless : that they are more likely to confirm prejudice than to extend knowledge, and as regards their scientific value, science is made up of quite other stuff. Now to this it may be answered that knowledge advances in many ways ; not only by the investigations of the gifted workers of science, but by the casual observation of an isolated fact. Indeed it has hitherto been objected, at least against the science of therapeutics, that more has been gained by accident than by methodical pursuit. The truth is, one step of knowledge, however gained, leads to another. The accidental infection of a milkmaid's hand, casually brought to the notice of Jenner in a country surgery, has not only contributed more than any other discovery to the limitation or suppression of a loathsome disease, but it has opened up pathological speculations of a far-reaching character, and which to-day, in the hands of Pasteur and his colleagues, reveals the hope that we have the key to many if not all infective diseases.

All will admit that in the daily routine of practice facts are occurring that are worthy of record, and that Medical Science loses much by the want of such record. By the combinations proposed, what are now casual and wasted observations would be methodised and stored for arrangement, comparison, and deduction.

The English Committee has proceeded as follows : having first determined certain subjects for Collective Investigation, cards of queries have been framed and distributed through the different Sections, leaving each member to select such subject or subjects as he might prefer.

As regards those life-histories of which I have spoken, patients and practitioners are advised to apply to the Association for blank books for these records. The head of the family or other person is directed to request the medical attendant, after each illness, to write a brief account of it, with any note he may be pleased to add ; so that, after the manner of genealogical trees —which show the distinctions of a family through the heroic deeds of its ancestors—there should be a genealogical history in time to come of all the diseases to which its members have been subject from generation to generation. Such books might also become a record of health as well as of disease, and so show not only how families, and from them nations, decay, but how they grow. No doubt such records even of a thousand families would contain singular revelations, and place many of our pathological ideas in quite a new light. We might learn that with tendencies to organic disease, there was less tendency to epidemic influences ; that if diseases were prone to change their form and multiply, they were equally, if not more, prone to lose their forms in a reversion to health ; that the occurrence of one disease might confer an immunity from another.

These life-histories might perhaps seem to have a more national than international value, but if they could be obtained, they would supply material for probably the widest inductions. But there is this difficulty about them. Fear, as the wise man said, is a bad counsellor, and, unfortunately, the construction of these life-histories is beset with fear. There is a lurking dread in every man, and in every family, of exposing their frailties. This presents an almost impenetrable barrier to gaining the facts upon which

life-histories are built. There is a fear also in the minds of the inquirers themselves, since there is a natural disinclination to intrude into secrets which are so anxiously guarded. But whilst we bear in mind the wise man's dogma, and remember that fear is a bad counsellor, we may resist its counsels as far as we can, where so much is at stake.

The clinical subjects which at present have been selected are acute pneumonia, chorea, acute rheumatism, diphtheria, and inherited syphilis. Cards of queries have been issued on each of these subjects, and each card is accompanied by a memorandum stating the object of the particular enquiry, and directing the attention of the observer to the queries proposed. These memoranda are of the first importance in this movement. It is on them that our hopes of success must be grounded. It is intended that they should indicate the defective state of our knowledge in the subjects brought forward for investigation. In doing this their value to the profession, and to the progress of our knowledge, is almost incalculable. It is no small matter to have set before us in a simple manner what the present state of our knowledge is, the defects which have to be made good, and the enquiries likely to lead to such a result. Text-books on medicine will hereafter have to follow something of this leading. Hitherto, and for the most part, they have aimed too much at satisfying the reader, and, in order to make the treatises complete, have assumed a knowledge both in pathology and therapeutics too little justified by fact, and so have hindered, rather than promoted, our progress.

These memoranda are intended to be critical suggestions and suggestive criticisms on the state of knowledge respecting the subjects brought forward. They are the centre of the proposed system. It may fairly be expected that each issue of them will be more exact and incisive. The successful framing of them is the one important object to be attained. Through them the influence of the more advanced intellects in the profession will extend through the whole of it, and will reach its most scattered and distant members. Nor can we doubt but that there will be a reaction from the periphery to the centre, maintaining a living cycle of active mental coöperation. Who can limit the effect of such action and reaction? or deny that there will thus arise new energy and new genius? for, happily, the cultivation of science need not remain the privilege of professors and teachers, but may become the common inheritance of all.

The volumes I hold in my hand are the first published records of the Collective Investigation in England. They contain Reports and Memoranda on the communicability of Phthisis, Acute Pneumonia, Chorea, Acute Rheumatism, and Diphtheria.

I would refer, by way of illustration of my remarks on Memoranda to the Memorandum on Acute Rheumatism. This recites our deficiencies on the ætiology of this disease, and might also include its pathology; the exceptional ways in which Rheumatism occasionally developes; its probable relation to the state of the nervous system; the new aspect of the pathology of joint-affections in relation to the spinal cord; the relation of the intensity of the rheumatic affection to anæmia; its clinical relation to tonsillitis; the intercurrent affections of the skin; and last, but, unhappily, not least, the treatment. I might add, however—not as a criticism, but as a suggestion—that an exhaustive Memorandum on Acute Rheumatism, showing the real state of our knowledge respecting this disease in all its relations, and the more than vagueness of our treatment of it, would have a value which I should find it difficult to express. Long-standing prejudices, which for the most part are entertained and fostered as if they were established and confirmed experience, would go down before the exposition of such a Memorandum, and its results in International Collective Investigation, as dry leaves before an autumn wind.

When enquirers on a given subject agree at the outset what are the imperfections of their knowledge respecting it, they naturally combine the more heartily in its further investigation.

The aspect of an enquiry from a personal standpoint, and that from a collective investigation standpoint, present the most important contrast. In the one, the Ego, however subordinated, is not lost. It lurks at the centre of the operations, and the results or supposed results of personal enquiry are too apt to be regarded as property, to be defended against all inroads, whether this property be worth defending or not. The observations and experience of any one man, however gifted, cannot be considered more than suggestive, and cannot have any authoritative value until confirmed by the repeated observations of others.

In a collective investigation, whether national or international, the individual and the results of his enquiry are obviously less open to distortion from personal favour or prejudice. This freedom from undue influence gives a greatly preponderating advantage to such associations as we are here met to establish.

Here the observer has no selfish interest in the result of the enquiry. His work will be equally good, whether immediately fruitful in positive results or not. The isolated observer, on the other hand, is apt to have interest in little else than positive results. In therapeutics the truth of this is too abundantly evident, to the confusion of medical practice, and to the vaunting of remedies and methods which are mostly of no value, or may be even worse than useless. It has not escaped the remark of the master of the logic of facts, that "Habet enim unusquisque præter aberrationes naturæ humanæ in genere, specum sive cavernam quandam individuam, quæ lumen naturæ frangit et corrumpit—ut plane spiritus humanus (pro ut disponitur in hominibus singulis) sit res varia et omnino perturbata et quasi fortuita. Unde bene Heraclitus homines scientias quærere in minoribus mundis, et non in majore sive communi;" not in the common world, but in the world of themselves.

One can hardly forecast the amount of good influence on therapeutics, if, instead of individual assertions respecting the value and success of this or of that drug or method, we had the teaching of calm and impersonal results deduced from an international area of enquiry, so large that the individual observer would be lost in the result.

Whilst our English Association has, as I have described, put forward several subjects for collective

enquiry with the memoranda and questions I have named, our German colleagues have determined upon a somewhat different method. They have selected but one subject for investigation, thinking it better to exhaust that before taking up a second or third; and they have naturally selected a subject which at the moment prominently occupies the attention of the profession in all lands, I mean pulmonary phthisis. Upon this they have proposed four points for solution:—(1) The heredity of the disease; (2) The communicability of the disease; (3) The cure of the disease; (4) The transition of pneumonia into phthisis.

These propositions are accompanied with many questions of detail which I will mention presently. The English Committee, at the beginning of last year, also proposed as a question for Collective Investigation the communicability of phthisis, and have reported upon it. The German enquiry is not yet reported upon. The important discovery of Koch that there is a specific organism associated with pulmonary tubercle, and his infection experiments, have naturally excited the greatest interest respecting the communicability of the disease. It is well known that at different times and in different countries the contagiousness of phthisis has been confidently believed in; and as Professor Ewald remarked at a meeting of the Verein für innere Medicin, observers in America, in England, and in Germany, have supported the belief in the contagiousness of phthisis by important records respecting it. Still, until Koch's discovery, the professional mind was very much asleep about it, or with only now and then a half waking-dream.

The English Collective Investigation Committee have put forward the question of communicability in the simplest form—"yes" or "no;" as follows: "Have you observed any case or cases in which pulmonary phthisis appeared to be communicated from one to another? Please answer Yes or No." It will be observed that this is not a mere voting question as to a man's belief, but whether he has observed any case or cases of the apparent communicability of the disease. "Out of the 1,078 members of the Association who returned answers to the questions issued on this subject, at least 261 believed they had seen cases of phthisis which have originated in communication from one person to another; about 39 more have seen cases which have made them doubtful whether phthisis may not be so communicated; while 105 have offered facts and arguments which seem to them to negative such a view. One hundred and fifty-eight of the affirmative returns refer exclusively to cases observed between husband and wife. Communication between husband and wife is mentioned, together with other cases, in 34 of the remaining returns. So that 192 observers report cases of supposed communication of phthisis occurring between husband and wife."

There are also a number of special returns where the disease seems to have spread from patient to nurse, and from friend to friend. I am not here of course to discuss the pathology of phthisis or of its communicability from person to person, but to argue for the advantages of collective research. And, perhaps, no subject could be selected better to demonstrate these advantages than the supposed contagiousness of phthisis. By extending the enquiry over a wide area, the recurrence of striking cases of apparent communicability are repeated over and over again, and must naturally impress the mind more than a case or two occurring in individual experience. The Committee, therefore, justly remark in their report, that they hope that this first step in Collective Investigation into one of the most important questions connected with the ætiology of phthisis, will be of value in leading to more open-mindedness in the discussion of disputed questions of experience and observation.

We shall await with interest the report of the Berlin Committee, for its Card and Queries is much beyond that of "Yes" or "No." It presents seven sections—(1) General questions as to the history of the family of the patient, the subject of phthisis; (2) Antecedents of the family; (3) Previous diseases of the patient, as, for instance, whether of phthisical habit or not, what diseases preceded the development of phthisis, as scrofula, measles, whooping-cough, chlorosis, &c.; (4) On the question of heredity follow queries on health of parents? either dead of phthisis? and when? have they suffered from scrofula? disease of the bones? lung diseases not phthisical? as pneumonia? pleurisy? gangrene? bronchitis? &c., were the grandparents or parents related in blood? age of father or mother at the birth of the patient? were they sober or not? &c.; (5) On contagiousness or communicability—was the disease taken from husband by wife? or from wife by husband? when the malady began? was the communicability between brothers and sisters or relatives or servants? was the contagion from residence in prisons, establishments for the insane, barracks, or infirmaries, &c.? was the infection by residence, clothing, or beds? by nourishment as through the milk of scrofulous animals, or consumptive nurses, &c.? (6) On the curability, including only such cases where at least two years had elapsed from the beginning of the disease—where did the arrest or cure seem to begin? did this come from the improvement of the general condition? are cough and expectoration gone? have the physical conditions altered, and in what way, &c.? (7) On the transition of pneumonia into phthisis—the day of the beginning of the pneumonia? its seat, as at base, apex, or middle of lung, &c.? right or left lung? expectoration—sanguineous? rusty? grass-green, &c.? signs of re-convalescence? when the first signs of tubercle occurred? &c., &c.

I have stated just now that I appear here on behalf of the British Medical Association for Collective Investigation; but I have to add that it is my duty to lay before you further what has been done by the Collective Investigation in Berlin. Within the short time that the Berlin Association has been in operation (spring, 1883), its activity and success have been remarkable. The Berlin Association had already, in February, 1884, nine months after its establishment, fifty-five branches; and Herr Leyden reported to the February meeting of the Verein für innere Medicin a communication he had received from Professor Rauchfuss, in St. Petersburg, informing him that they would establish there a separate Association for Collective Research, after the plan of that of the Verein für innere Medicin, and in relation with it. In Paris also,

in the Société des Hôpitaux, there had been negotiations respecting the collective investigation of the Verein für innere Medicin, and a similar one would be there arranged.

In the June sitting of the committee, under the presidency of Herr Fraentzel and Herr Leyden, Herr S. Guttman, the secretary reports that the German Association is daily making progress and exciting great interest; that on all sides, from Denmark, Sweden, Switzerland, Italy, Spain, and America, there were communications asking for information respecting this collective investigation, and with a request for the cards which had been issued.

With the Vercin für innere Medicin, there are associated of the Berlin Institutions the "Königstadt-Verein," the "West-Verein," the "Südwest-Verein;" and for the Associated Societies out of Berlin, there are correspondents for the Medical Societies in Rostock, Schwerin, Güstrow, Münster, Minden, Arnsberg, Regensburg, Paderborn, Aurich, Thüringen, Holland, Meran, Hagenau, Salzbrunn, Frankfurt (am Main), Köslin, Freiburg, Prag, Elbing, Mainz, Hannover, Graetz, Bochum, Frankfurt (am Oder), Hessen, Wiesbaden, Danzig, Memel, Marienwerder, Friedeberg, Lübeck, Chemnitz, Nürnberg, Bremen, Pommern, Breslau, Giessen, Dresden, Posen, Essen, Halle, Kiel, Basel, Göttingen, Liegnitz, Riga, Davos, and Marburg.

Further, there is an Association for Collective Research of the Institutions for the Insane, and already Herr Jastrowitz reports a combination of twelve of these institutions in different parts of the country. There is also a similar movement for enquiry into the health and the diseases of the inmates of prisons and infirmaries. In fact, our German friends have in many lines outrun us. Their exertions and their success in promoting this organisation make it superfluous for me to add arguments in favour of the proposition before this meeting.

I hope I may congratulate this sitting of the International Medical Congress in Copenhagen, upon the happy incident that we are to-day called upon to centralise these operations which have begun in England and Germany, into an International Committee of this Congress, whose function will be to promote them in all lands; and, by the continued coöperation of these Congresses, carry forward a movement, the fruits of which, as I have already said, it will be impossible to over-estimate; whether we limit our view to the results on our members, on the profession as a whole, on the public good, or on the brotherhood of nations.

There is but one caution, and that lies against our attempting too much at first. In our scientific ambition, it would not be difficult to o'erleap ourselves. It is by a little well done that we shall do much; whereas, if our deductions are hasty, incomplete, and unfounded, the authority which will naturally attach to these researches will be much more obstructive to the cause of science than the fallacious dogmas of separate individuals. If our hopes and prospects are encouraging, the steps we take cannot be too wary. The purpose of our association could only lead to failure, and, perhaps, even a gigantic failure, if the movement were not waited upon by strict caution and exact criticism. If the work proceeds at the present rate, a few years will witness one of the greatest and most useful movements in modern times. The founding of an International Collective Investigation of Disease will promote the national movements of the same kind in all countries, and will give a stimulus to international emulation under the happiest form.

In the time at my disposal it is impossible to sketch even in outline the number of subjects which claim attention. The Committees of the different Sections, as the work progresses, will select their subjects from their own point of view, some with a broader purpose will take the more common maladies, and the more curious the rarer ones. One of our English colleagues would have concise descriptions of rare maladies prepared as an entomologist would have them prepared, of newly-discovered insects; printing distinguishing features in italics. He instances Rhinoscleroma, Hebra's Prurigo, Morphœa, Alibert's Keloid of Scars, Addison's Disease, Hodgkin's Disease.

Cretinoid State in the Adult (Myxœdema).

Congenital absence of special bones (such as radius and tibia, with associated portions of carpus or tarsus).

Cases of Spina Bifida, illustrating either results of treatment or survival without it.

Cases of Sacral Tumour.

Cases of "the Recurring Iritis in young persons."

Aneurysms in the orbit.

The Osteitis Deformans of Paget.

Disease of joints in Ataxy ("Charcot's joint-disease").

Non-malignant growths in the tongue.

Hemiglossitis.

Kaposi's Disease.

The arguments for these more curious enquiries are not far to seek, since diseases which are rare in some countries may be frequent in others, and by their frequency afford the required ground for the study of their pathology. I might instance the glandular and elephantoid diseases of China, and the successful labours of Manson and Mayers, which have traced them to the presence of the *filaria sanguinis hominis*, producing lymphatic obstructions and filarial thromboses. The elucidation of such a piece of pathology, though the disease be limited to China, must have a good influence on the whole medical mind in breaking down pre-conceived opinions, and in showing that we cannot go too far a-field for our knowledge. It supplies moreover, a further argument for the International Collective Investigation of Disease.

Gentlemen, whilst I thank you for the favour with which you have received this Address, I cannot but express my deep sense of the imperfect way in which I have set forth the greatness and importance of my subject. I can now but commend the matter to your good efforts, assured that, through them, success will not be wanting.

Medical Charities.—Under the will of Mr. Hanson Freeman, of Knaresborough, 1,000*l.* each is bequeathed to the Halifax Infirmary, and the Harrogate Bath Hospital; Mrs. J. B. Grieve, of Berwick-on-Tweed, bequeaths 1,000*l.* to the Catholic Hospital of St. John and St. Joseph, Great Ormond Street.

CONSENSUAL MOVEMENTS AS AIDS IN DIAGNOSIS OF DISEASE OF THE CORTEX CEREBRI.

By VICTOR HORSLEY, B.S., M.B. Lond. F.R.C.S.

Assistant Professor of Pathology in University College, London, and Surgical Registrar to University College Hospital.

In the following case[1] of tubercular meningitis, which affords an example of the application of knowledge gained by experimental pathology to the diagnosis of disease of the brain, the somewhat uncommon phenomenon was observed of movement of one limb when the opposite one (previously rigid) was fully flexed. On further analysis of this and correlated symptoms, it became evident that here was a ready means of localising, at any rate, some of the disease in the encephalon. Briefly summing up the case it amounted to this: that a boy, aged 7 years, who had been treated some time for hip disease, was sent down to a convalescent home, where, from pressure of splint, &c., he unfortunately got a bed sore. On his re-admission to the hospital, he was suffering from chronic septicæmia due to the condition of the sore. This passed off under treatment, but about a fortnight after re-admission he was attacked by tubercular meningitis and general tuberculosis. As will be seen from the subjoined account, the onset of the disease was perfectly characteristic, and requires no further notice. On the tenth day of the meningitis, when the patient was examined, it was found that the left upper limb was rigid in the proximal segment, the arm. For the previous forty-eight hours it had been noticed that the patient never moved the *left* upper limb, and very rarely the lower limbs, but that the right upper limb he occasionally carried to the head, while at other times it lay perfectly lax. The child was completely unconscious, took no notice of anything happening around him, and when roused only moved his body sluggishly from side to side after a considerable interval of time. It is perfectly clear, then, that the cortex cerebri was very greatly inhibited, but its function not totally arrested. This point is of great importance, of course, in considering the diagnostic value of the above-mentioned symptom since it can but rarely occur that such a degree of cortical inhibition (or mental hebetude) should be reached in which a slightly painful, or at any rate uncomfortable, stimulus does not evoke a defensive reflex movement, and at the same time arouse an emotional disturbance of greater or less degree, while it does call forth, after a constant interval of time, a perfectly definite movement, obviously regulated by the excito-motor region of the cortex cerebri. The justification of this mode of explaining the consensual movement is to be found in the following clinical facts. In examining the degree of rigidity noticed in the left arm muscles, I found that when the elbow was rapidly and forcibly flexed, the right upper limb moved forwards and inwards after the constant and distinct interval in time of one second. For the first two or three times the interval between the flexion of the left arm and the movement of the right was two seconds, but this rapidly became shorter, until about the sixth time it was one second, at which point it remained constant. This is interesting when we remember how soon the personal equation can be reduced by a little practice. In further detail, the movement of the right upper limb began by flexion with adduction of the shoulder, the elbow being kept extended, and the wrist slightly flexed. The movement only followed *complete* flexion of the left elbow. For starting with the limb fully extended at 180°, if the elbow were steadily flexed through 120° there was no movement of the right arm, but this began as soon as the flexion of the joint was carried beyond that point; in short, as soon as over-flexion was produced. It is obvious, therefore, that the stretching of the previously rigid muscle formed the stimulus for movement of corresponding muscles on the opposite side of the body. The question at once arose whether the movement was produced by the stimulus simply passing across in the spinal cord, or whether it passed up to the highest centres in the cortex. That the right cortical excito-motor region was the seat of an irritative lesion was perfectly obvious, since, in addition to the rigidity with paralysis (voluntary) of the left upper limb muscles, there was slight nystagmus, with marked internal strabismus of the left eye, together with abolition of both superficial and deep reflexes. Taking this into consideration, with the relatively enormous length of time[2] (one second) that elapsed between the flexion of the left arm and the consequent movement of the right arm, I considered myself justified in assuming that the impulse passed from the right cortical centres (already in a state of high irritability) to those of the left side, and that the associated centres there "discharged," with the movement of the right arm as a result. Consequently, there was diagnosed a patch of discrete tubercular foci scattered over the right ascending frontal and the posterior third of the middle frontal gyri at least, while the left excito-motor area was healthy. This will be found from the report given below to have been the case.

As might be expected, flexion of the right elbow had no effect on any other joint.

Summary of Clinical Report.

J. C., No. 853. Re-admitted into University College Hospital, April 7th, 1884; aged 7 years.

Personal History.—Health always good. Circumcised for incontinence of urine.

Family History.—Maternal aunt died of phthisis.

History of Present Illness.—Began at the end of 1882 from a fall, in which the left hip was said to have been "sprained." The disease then ran a steady sub-acute course.

Present State.—On re-admission patient's temperature was 104·6°; he was considerably emaciated, and there was a foul sore over the right posterior superior iliac spine, and a small sore over the middle of the upper part of the dorsal spine. Around the left hip were the sinuses of previous operations, there was frec discharge of pus from the same, and the joint was loose and grated. Sores were treated with boracic acid, &c., and commenced to heal. Temperature gradually fell to normal on the 18th.

April 19th.—Patient complained of severe headache, and was very constipated.

April 21st.—Last night patient became very irritable, continued uttering a shrill cry, so loud as to wake the patients in the opposite ward. Towards morning he became drowsy and insensible; took no notice. This morning says he has no headache, but is irritable and peevish.

April 22nd.—Patient vomited last night. Constipation still very marked.

April 24th.—Patient seemed considerably better. Took notice of what was going on in ward. Did not cry out so much.

April 26th.—Patient quieter and weaker, did not cry out as usual when dressed, nor answer to his name. The face and chest occasionally flushed bright scarlet.

[1] I am indebted to Mr. Barker for permission to publish the notes I made on the patient while under his care.

[2] The child was intelligent and his personal equation in health was probably quite up to the average.

April 28th.—All reflexes greatly exaggerated ; ankle and knee clonus well marked.

Ophthalmoscopic Examination.—The right optic disc is distinctly swollen and the edge blurred, the veins being engorged ; the same condition noted also on the left side. Eyes.—The eyeballs did not move in unison ; the left eye turned inwards with nystagmus, while the right remained fixed.

April 30th.—The facts noted above with respect to the movement of the arms were observed this day, and moreover it was found that all the reflexes, superficial and deep, were abolished.

May 1st.—Patient died gradually early this morning.

Note.—The temperature throughout the course of the meningitis was subnormal, but the last two days rose to 102·8°. It was slightly higher on the left side.

Autopsy.—Thirteen hours after death. Rigor mortis well marked, and equal in the limbs. Head : Calvarium—Thin and translucent in patches even close to the centres of ossification. Dura mater smooth, bluish and transparent. Longitudinal sinus filled with ordinary *post-mortem* blood clot. Arachnoid : Right hemisphere—Whole arachnoid absolutely dry. All the sulci on the outer and inner surface are obliterated, excepting the anterior two-thirds of the superior frontal sulcus, the anterior half of the middle and inferior ditto and the intraparietal. The right hemisphere appeared fuller and more swollen than the left. Left hemisphere—The whole of the arachnoid on the left side is almost dry, but with the exception of the Sylvian fissure the sulci are all wide open and filled with cerebro-spinal fluid, especially those of the frontal and upper parietal region. Pia mater : Right hemisphere—Opaque and thickened over the whole hemisphere. Scattered over the whole of the pia mater are numerous grey granulations, in the sulci especially, while in the fronto-parietal region there are large yellow patches of tubercle as enumerated below. Left hemisphere—In the meshes of the pia mater are scattered a few discrete granulations none more than 2 mm. in diameter and none situated in the excito-motor area. There was well marked opacity along the middle cerebral vein. All the veins were over-filled and the hyperæmia could not be removed by pressure. Cerebrum—In removing the brain, there escaped nearly three ounces of fluid (℥ xxii). It did not contain sugar. Arachnoid and pia mater—As far back as the sixth nerve the membranes are white, opaque and matted together, this condition being most marked around the right optic nerve where it is about a quarter of an inch thick as far forwards as the front of the optic foramen. Right hemisphere—The yellow nodules of tubercle, noted above, most thickly cover the following convolutions and sulci between them, viz., the posterior half of the superior frontal, the middle frontal and the upper half of the ascending frontal. In the middle frontal gyrus they form a rather whitish mass divided posteriorly by the præcentral sulcus. Part of the inferior frontal sulcus, just opposite the anterior limit of the fissure of Sylvius, is also filled with large masses of tubercle. The posterior two-fifths of the superior frontal gyrus is covered with an almost continuous mass of tubercle which dips over into the longitudinal fissure covering the upper half of the marginal convolution to an extent equal to that on the outer surface. There were found several patches scattered along the fissure of Rolando, the anterior extremity of the intra-parietal sulcus, and also in the fissure of Sylvius, but the rest of the disease in this hemisphere (the right) was confined to small indiscriminate grey granulations, which were most numerous around the quadrate lobule. The softening of the fornix had extended a short distance into the caudate and lenticular nuclei of the corpus striatum. Left hemisphere—Beyond the few grey granulations noted above, there was only a small focus of tubercle one-sixteenth of an inch in diameter situated on the upper surface of the optic-thalamus. Cerebellum—On the lower surface of the left lobe at the anterior margin, there was a small tubercular nodule about one-fourth of an inch in diameter adherent to the dura mater, and pressing inwards into the cerebellum. Medulla oblongata and pons varolii—In the centre of the pons, just behind and above the left pyramidal tract, was a small tubercular nodule one-fourth of an inch in diameter. Rest of medulla, &c., normal. Cranial nerves—The sheaths of the optic nerves were greatly distended with fluid, giving them a translucent appearance. Commissures—The fornix is greatly softened and also the corpus callorum, especially in the anterior two-thirds of the posterior half. Spinal cord—Beyond a little opacity of the membranes in the dorsal region, the cord appears healthy. Eyes—Both optic discs showed usual swollen appearance, especially the right. Trunk : Serous membranes—Normal, except the right pleura which was adherent all over. Circulatory system—Heart distended with *p. m.* clot, muscle substance pale and soft. Respiratory system—Trachea and bronchi contain a quantity of frothy muco-pus. Lungs—Both riddled with grey granulations. Digestive system—Liver normal size, infiltrated throughout with minute grey granulations, slightly congested. Spleen—Adhesions on outer surface pale on section. Pancreas normal. Whole intestinal tract appeared normal except the large intestine which was congested in patches, and here and there the surface was covered with gelatinous mucus. Mesenteric glands were enlarged. Urinary system : Kidneys—In the upper end of the left kidney, there is a tubercular patch extending to the whole depth of the kidney substance in breadth equal to half a pyramid. In the lower end there is a small patch in a pyramid. In the lower end of the right kidney, there was a similar patch. Bladder, &c., normal—Urine in the bladder was pale, and contained a trace of albumen but no sugar. Genital system—Normal. Left hip—The head of the femur was found lying just outside, and behind the anterior inferior iliac spine forming a projection on the bottom of a granulating sinus opening. Head of the bone totally carious.

SOME OBSERVATIONS ON ENDEMIC FEVERS IN INDIA.

By Surgeon J. PEDLOW, M.D.
Army Medical Department.

(*Concluded from page* 145.)

Turning next to remittent fever, the distinction between it and the enteric form was a very artificial one. Cases in which the temperature was high, and irregular at the outset, and in which there was insufficient evidence of intestinal complications, were considered to belong to this class. Many of them, however, developed such complications suddenly in the course of the disease, and a change to enteric was often necessary. In nineteen cases four of them had relapses similar as regards temperature and general symptoms, excluding visceral lesions, to the relapses in the enteric cases. In eight cases there was sharp bilious diarrhœa at the outset, which usually ceased in two or three days. Their period of prevalence broadly corresponded to that of the enteric cases, and on admission there was, as a rule, the severe headache, the flushed face, and the furred tongue common to all the fevers. Some of them had vomiting and rigors previous to admission, and in three cases constipation was followed by diar-

rhœa, which was characteristic of intestinal congestion, if not of ulceration. The following figures give the number of days of each individual case in hospital which recovered, 86, 36, 11, 47, 27, 45, 90, 36, 15, 72, 29, 66, 39, 60, 42, 38, 57, 41, 37, the last a re-admission. With the exception of two cases, the third and seventeenth, the normal temperature in each case respectively given above was reached on the 31st, 14th, 23rd, 15th, 18th, 20th, 16th, 6th, 33rd, 10th, 30th, 14th, 33rd, 12th, 31st, 21st, 20th day of illness. It will thus be seen that, as in enteric, the date of these periods was very irregular, as we would expect in remittent, but not to the same extent in enteric. In severe cases there was bronchitis and delirium at night.

The following is a record of the only fatal case. Private W. M., age 24, service in India one year and ten months, was admitted to hospital on the 4th November, 1882. He stated that two days previous to admission he was attacked with severe pain in the head, and dizziness, and severe pain in back, which lasted for two days, and then subsided. On admission his face was flushed, and his eyes suffused; his tongue was furred. He spoke nervously, and his hands were tremulous; bowels were constipated. The day after admission he passed two natural motions. He was then unable to pass water, which was drawn off. There was no tympanites or abdominal pain. On the ninth day his temperature fell to 99°, and he appeared somewhat better, but on the tenth day there was a sudden evening rise and delirium set in. His tongue the following morning was quite dry and brown, and rough to the touch. There was much irritability of the bladder, teeth were covered with sordes, and he could hardly speak; throat also was much congested. Bronchitis set in on the twelfth day, and the bowels, which were constipated, were opened by calomel. He was delirious throughout the day, and the muscles of face and arms had frequent spasms. On the fourteenth day of illness he passed three very fœtid motions in bed. He sank into a state of coma, and died early the following morning. The fever was high, but irregular, on the eighth and ninth days, the morning temperature was 99·4° and 99° respectively. At the time of death it was 105·6°. On *post-mortem* examination, the membranes of the brain were found much congested; the spleen also was much congested; weight, ten ounces. The last four inches of the ileum were inflamed and thickened slightly, but the mucous membrane over Peyer's patches was quite anæmic, and there was no evidence of any change in the patches themselves. The colon was congested throughout. In the ascending colon there were a number of patches of erosion, irregularly circular, in size about a sixpence. They looked as if small pieces of the membrane had been dissected off. The bowel itself was much inflamed, and some ounces of inflammatory exudation were lying in the rectum.

The following is a record of another very severe case. It was peculiar inasmuch as, although the fever ran very high during the first three days of illness, the tongue, as in two or three other cases, was quite clean and moist. Its condition was probably an index to the state of the bowels, and showed that at that period there was no intestinal congestion or other complication. Private N, age 22, service in India two years and seven months, was admitted to hospital on the 25th November, 1882. He complained of severe headache and sleeplessness, which he stated had existed for two days; bowels were constipated. On the evening of the fourth day of illness his tongue became slightly furred along the centre, but was moist and clean at the sides. Bowels were opened freely by calomel. Mild diarrhœa, with enteric-looking stools, commenced on the sixth day of illness, and lasted for five days, when the bowels again became constipated, tongue was then quite dry, and fissured and brown. Delirium was severe on night of fifth, and on the seventh day he was very nervous and tremulous, and spoke with difficulty. He was delirious throughout the eighth and ninth days. During the next few days there was little change; urine was tested on the eleventh day, and was found to be full of albumen. The tongue was most peculiar; it was quite parched and withered-looking, and one deep fissure ran diagonally across it, from which blood constantly oozed. Improvement began almost suddenly on the twelfth day of illness, delirium subsided, and the tongue became moister. Debility was very great, and he was not discharged from hospital until the sixty-sixth day. On his discharge there was the scar of the fissure on the tongue. The fever, which was high at first, subsided suddenly on the fifteenth day, after which date the morning temperature was practically normal, but the evening temperature continued high for another twelve days.

In both these cases there can be little doubt that visceral complications did not commence for some time after the patient's admission. In the first case the patient, on the day after admission, passed two natural motions, and in the second case the tongue was clean and moist for three days. In both cases the abdominal symptoms were very mild, compared with the intense cerebral disturbance. In the fatal case the intestinal lesions were small, and gave but little evidence of its severity. This I have frequently seen in severe cases in other parts of India, especially in soldiers over 26 years of age.

The following is a record of a very irregular case in which, after recovery and discharge from hospital, the patient had a relapse. Private Page, 27, service in India two years and six months, was admitted to hospital on the 10th August, 1883, complaining of headache and sickness which he stated had existed for two days. His face was flushed, and tongue furred. The bowels were regular but subsequently became constipated. Headache disappeared in a few days, and he improved somewhat. There was some abdominal pain and marked tenderness over the liver. Ultimately, he was discharged on the 20th September. He reported himself sick nine days after and stated that two days previously he had an attack of ague, and severe headache. On admission, his tongue was furred but moist, bowels were purged six times in the twenty-four hours, the motions were bilious. During the next five days his eyes became jaundiced, and the bowels obstinately constipated. A few râles were heard in both lungs, tongue became dry, brown and fissured, and debility was great. He was very restless at night, and during the day apathetic. His condition was similar to many of the other cases, but tenderness over the liver, and the jaundice denoted that there was hepatic congestion; also, on the thirteenth day of illness there was some improvement; debility, however, was extreme. He was discharged hospital on the thirty-seventh day, but re-admitted a few days afterwards for debility. In the first attack, the temperature became normal on the fourth day, but rose again the next day to 101·6°, and did not reach the normal again until the twelfth day. In the relapse the fever continued, with one intermission on the fourteenth day, till the eighteenth day.

In the following case, a partial improvement was followed by a relapse. The temperature and the case itself resembled some of the enteric fever cases which had relapses. The patient was admitted on the 30th June, 1882, with severe headache and pains in the limbs and general malaise. On the 2nd July his temperature rose in the evening to 103·2°, and his face became flushed and eyes suffused. Pain was complained of over the bowels, which were constipated. His tongue became furred. He remained in that

condition until the 6th July, when signs of improvement set in; the bowels acted naturally, and his tongue commenced to clean; headache also disappeared. On the 9th July, twelfth day of illness, temperature rose high in evening, and headache returned. He passed a sleepless night, and his tongue again became furred and brown. He complained of pain over liver. Headache continued for two days; on the 11th July he again commenced to improve and made a quick recovery. The temperature came down to normal on the eleventh day, but at once rose to 104°, and continued high, with marked morning remission, for the next six days.

The irregular course of these and many other cases of remittent fever, was due, I believe, to the fact that the determination of blood was more to the liver and spleen than the intestines. As mentioned before, the intestinal glands were probably atrophied, and there were consequently no structures in the bowel susceptible of severe ulcerations.

Turning next to the consideration of simple continued fever and febricula, the cases of both met with in this station were essentially of the same nature as the enteric and remittent fevers, though milder in character. In them, as a rule, the fever subsided without evidence of any serious intestinal complications of any duration. There was in many cases bilious diarrhœa at the outset and severe headache, high temperature and furred tongue. In others there was constipation throughout. *The original attacks, as stated before, in many of the cases of enteric and remittent, which subsequently relapsed, were considered to be of this nature.* The average period in hospital of twenty-one cases of febricula was thirteen days, and of nine cases of simple continued fever twenty-two days, but the usual period in each was from fifteen to twenty-five days. The following is a record of one of these cases of febricula.

Private B., age 22, service in India two months, was admitted to hospital on 19th April, 1883. On admission his tongue was moist, but covered with a soft, white fur; the eyes were suffused, and the skin over face and body was flushed and hot. Headache, he stated, was very severe. These symptoms had existed for two days before admission. There was some pain in bowels, but no tenderness on pressure. He was restless at night. He continued in this condition for five days, when the headache disappeared. The following day the tongue commenced to clean, and his condition improved, and he was discharged on the 5th of following month. On admission his bowels were slightly relaxed, but constipation followed.

Subjoined is the record of the temperature :—

Estimated day of Illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
3rd	102·2	103·4
4th	100·4	104·4
5th	101·6	102·2
6th	100·4	103·2
7th	100·6	103·2
8th	99·4	102
9th	99·4	99·4
10th	98·2	98·8

Imperceptibly cases such as these passed into the remittent or enteric type as the intestinal complications were obscure or marked. The following case was for the first week considered a case of febricula, but it subsequently assumed the characters of an irregular remittent fever. Private R., age 22, service in India three years and six months, was admitted to hospital on the 1st July, 1883, with headache and fever, which he stated was caused by exposure of the head to the sun, when playing some games without a helmet. There was some diarrhœa on admission, the stools being very yellow. He complained also of severe pain in the abdomen. The diarrhœa subsided in a few days, and he improved. On the 13th July, this diarrhœa returned, and there was some straining with a little mucus. Pain also in abdomen returned. He was restless and sleepless at night. There was little change for the next week, the purgation continued in a mild form. On the twenty-fourth day of disease the diarrhœa ceased, and though the temperature still ran high, he commenced to improve. The attack left great debility, and he was not discharged hospital until the 29th August.

The following is a record of the temperature from about the fifth or sixth day of illness.

Estimated day of Illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
6th	98·4	103·8
7th	99	104·2
8th	98	99·2

The temperature continued normal until the 14th day.

Estimated day of Illness.	TEMPERATURE.	
	Morning.	Evening.
	°	°
14th	98·4	102·8
15th	99·4	104·2
16th	98·4	104·2
17th	101	102
18th	99·6	103
19th	100	104
20th	99	102·6
21st	99	101
22nd	98·4	101·4
23rd	99·4	103
24th	99	102
25th	98·4	103·4
26th	99	103·6
27th	100·6	103·8
28th	101	103·8
29th	99	100·4
30th	99	100·2
31st	99	99·4
32nd	99	99·2
33rd	98·4	99·2
33rd	normal	

This case might be looked upon as a sort of link between intermittent fever and the more severe forms, and the temperature throughout shows the tendency to the irregular relapses which characterised some of the enteric cases.

So much has been written from time to time on treatment of Indian fevers, that little can be added by me to that subject. The systematic use of the bath at as early a period as possible gave the best results here. It was used in six very severe cases here during last autumn (1883), all of which recovered. In these cases there was continuous high temperature at the outset, which would have (according to our previous experience) ended in cerebral mischief, and early death. A special bath of large dimensions, made for the purpose, was used, and the patients were made quite comfortable in it with pillows and blankets. They were kept as quiet as possible, and the temperature was occasionally taken in the mouth. Many of the cases in which this was difficult to do before immersion, owing to delirium, quieted down in the bath, and it was taken without difficulty. The shock to the system was

minimised by having the water at a temperature between 85° and 90°, and the tendency to chill was avoided by pouring some warm water round the hands and feet occasionally. Considering the early period at which inflammatory symptoms appear, it is of vital importance to resort to the bath as soon as possible before there is disorganisation or inflammatory change, and it should be continued systematically as long as the temperature rises high, especially in the mornings. We used it in some cases when the disease had made considerable progress, and its good effects were then doubtful. When the disease is declining, it will usually be found that the evening temperature, though probably high, falls rapidly in the bath. I have rarely seen a marked fall of temperature in the bath at the outset of a case under three-quarters of an hour in a full-grown man. The headache at the outset, usually very severe, was much relieved, as a rule, by drop doses of aconite given in the manner Ringer recommends. After prolonged immersion in the bath, a few doses of it and liquor ammoniæ acetatis usually keeps the skin acting, and prevents a rise of temperature for some time. It should be borne in mind that in many cases a very high temperature is reached early in the afternoon. In such cases the bath must be again resorted to. The necessity for frequent observation is thus shown. We cannot rely on morning and evening temperatures alone as to its necessity.

Summing up the various points in connection with all these fevers, we find—

(1) That their periods of prevalence were nearly and practically the same, and that they all commonly attacked new arrivals from 20 to 25 years of age, although more than half the strength of the regiment was above that age.

(2) That cases above that age were, as a rule, mild, and the visceral complications undefined and trivial.

(3) That relapses were common to both the so-called enteric and remittent cases, and that intestinal complications, though absent in the original attack, as far as could be judged, were often marked in the relapse.

(4) That the temperature was rarely typical, and frequently high at the outset of the attack, and—

(5) That the course of both mild and severe cases was often very irregular, and the average duration of fatal cases much less than in the home type, owing to the early development of cerebral mischief.

ON OPERATION FOR CATARACT.[1]

By J. R. WOLFE. M.D., F.R.C.S.E.

Mr. President and Gentlemen,—I have been asked to open a discussion on the following subject, namely, "Does the Position of the Section in Cataract Operations influence Suppuration of the Cornea; if so, what part is played in Septic Infection?" I have the more readily consented to do so, because my views, which I shall thus have an opportunity of stating, differ in many respects from those generally adopted, and because it will be a satisfaction to me to ascertain how far my experience coincides with that of other members of the Section.

In the first place, then, there is the question, how far the position of the corneal section in cataract operations contributes towards suppuration of the flap? This is a subject which I have carefully studied for upwards of twenty years, watching the results of not only my own operations for cataract, but also those of surgeons of repute in this and other countries. During this period, the number of my operations in which corneal section has been made, is, as far as I have been able to collect: idiopathic cataract 545, traumatic 430, total 975. As in all these I had only six cases of primary suppuration of the cornea, I infer that the position of the corneal section cannot be regarded as an important factor in the suppurating process.

At the very commencement of my career I was impressed with the conviction, which I recorded in the *Lancet*, that in the cornea we have a membrane almost resembling cartilage in respect to its slight tendency to proliferation. The case there referred to was that of an old lady upwards of 80 years of age, upon whom I successfully operated for cataract by Daviel's method, although during the treatment her foot began to show symptoms of gangrene, to which she ultimately succumbed. The conviction just mentioned has since then been confirmed in the course of my labours in connection with transplantation of the cornea, in which corneal and conjunctival bands are removed from the eye of one person to that of another. We see this also in our daily experience in removing iron splinters from deep layers of the cornea; we notice how, if the splinters are clean and free from rust, the cornea heals without cicatrization. When, for opening the lens-capsule or for evacuating the aqueous humour, you pierce the cornea with a needle or with a lance, no trace of the entrance of the instrument remains visible after the lapse of a few minutes. Indeed, we shall best be able to repair lesions, whether produced by traumatism or by pathological processes, if we carefully watch how nature effects her remedies. I have recently had two cases which illustrate that point. The first is that of a young man, aged 19, admitted to the Glasgow Ophthalmic Institution. His eye had been lacerated by a piece of iron through the greater part of the cornea nearly at the centre. The eye recovered with an adhesion of the iris and leucoma, involving more than the lower half of the cornea, but is otherwise reparable. Another young man, employed in a ship-building yard in Barrow, was brought, in June 1884, to the institution. A piece of iron had struck the centre of the cornea and penetrated partly into the lens. The foreign body had been extracted immediately on the occurrence of the accident, but suppuration had set in, and the eye had to be removed. These cases illustrate a general principle, that the cornea may undergo a great deal of injury and yet easily recover; and that injury to the cornea, when complicated with that of other structures, proves disastrous. These facts all seem to point to the conclusion that we must seek the cause of suppuration in cataract extraction elsewhere than in the cornea itself, namely, in the deeper structures. Suppuration takes place when, during the removal of the lens, violence has been done to the iris and ciliary body. So also, when lens fragments have been left behind in the interior of the eye, these, acting like foreign bodies, give rise to inflammation, which begins in the iris, ciliary circle and vitreous, proceeds to suppuration, and then the cornea participates in the suppurating process.

I remember when we used to operate by Daviel's method, and were accustomed to boast of the charming results produced by it. In the years 1859 and 1860 I attended the clinique of M. Desmarres, a man of great originality and dexterity, who revolutionized ophthalmic science, and to whom we are indebted for many modern improvements. In his clinique of that period we had, as nearly as I can recollect, 200 extractions of cataract, and I cannot remember a single case of suppuration of the cornea. It is only since the spooning out of the lens, and the squeezing with instruments have been adopted, that we have begun to hear of suppuration of the cornea. Von Graefe was a man of genius, an illustrious pupil of M. Desmarres, whose

[1] Remarks addressed to the Ophthalmological Section of the Meeting of the British Medical Association at Belfast.

teaching he utilized, enriching ophthalmology by his own inherent ingenuity also; but his operation for cataract, I regret to say, has not been an advance. When he first published his operation, it was somewhat rudely criticised by Prof. Hasner, of Prague. I then disapproved of the attack, but in looking back now to subsequent history, I am sure that if Von Graefe had been spared a few years longer, he would have withdrawn from currency the operation which bears his name. Everybody has been practising Graefe's operation for cataract. A linear incision is made at the extreme corneal periphery, and the lens is violently squeezed out with a gutta-percha spoon. What can you expect but that, in many cases, the nucleus passes through, leaving behind large cortical masses which set up mischief by the third, fourth, or sixth day? Not to mention loss of vitreous, sympathetic inflammation, and other mishaps to which the operation is liable. And then we make the cornea the scapegoat. Of course I do not refer to the great artists of our profession; men of experience and resource may practise Graefe's or any other method, because they can change their plan during the operation and overcome inconveniences; but I refer to the junior members of our calling, who imagine that they do the right thing in practising Graefe's operation and come to grief.

As a rule, it is better to terminate the corneal section at the conjunctival limbus, for then the lens can slide out without a hitch; but when the vitreous is soft, the incision should terminate in the cornea. The corneal bridge is then more conveniently divided with a pair of scissors, without any dragging upon the wound. It will not be out of place here to mention another point connected with cataract extraction. I refer, namely, to the preparatory iridectomy a fortnight or so before the extraction of the lens. This was first suggested by Mooren as an adjuvant to Daviel's flap extraction. I have shown, however, that with preliminary iridectomy we can limit the corneal incision to a curve extending little more than the third part of the corneal circumference, thus avoiding many of the risks to which Daviel's method is exposed, and so making it applicable to cases even in which the flap-operation is contra-indicated. My views have been before the profession for the last sixteen years, have also recently been brought forward at the meeting of the Association at Cork, and published in my work on "Diseases and Injuries of the Eye," 1882. I cannot help expressing here my great satisfaction at finding that some men of standing in our profession have now adopted this method. The late Mr. Critchett, whose death is a great loss to our circle of earnest workers, told me that in difficult cases in which he was very anxious to ensure success, he resorted to my method; and I know that he carried it out successfully in cases in which one eye had already been lost under a different operative plan. And so, after the lapse of sixteen years, the profession has come round to my views.

Now, Mr. President, after dealing at such great length with what I consider to be the real cause of corneal suppuration, you will be prepared to hear my views on septic agencies. Septicism, when applied to diseases of the eye, I consider altogether out of place, and regard it simply as another scapegoat for defective methods. When the lids are closed, the eye is placed within a shut cavity which is inaccessible to septic agents. Any irritating appliance during an operation on the eye can only do harm; and when I see ophthalmic surgeons taking their instruments for operation out of carbolic solution, I look upon it as an artistic mistake. In short, I think it would be more in conformity with scientific principles, if, instead of going in search of causes of suppuration, we tried to eliminate the elements of failure which are staring us in the face.

In confirmation of the safety of my operative procedure, and its applicability to the most critical cases of local and constitutional complications, I will show you a patient far advanced and emaciated from diabetes, on whom I operated for cataract a fortnight ago. You will see that I have terminated the section in the cornea, owing to the extreme softening of all the ocular tissues, and you will satisfy yourselves of the safety of my method.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

PREGNANCY WITH EXTREME RICKETY DEFORMITY OF PELVIS, AND ALBUMINURIA — PORRO'S OPERATION — DEATH ON TENTH DAY.

(Under the care of Dr. HERMAN.)

(Reported by Mr. J. JAMES, Clinical Clerk, and Dr. A. J. RICHARDSON, Resident Accoucheur).

L. M., aged 29, admitted into the London Hospital, 2 p.m., February 14, 1884. Before admission she was attended by Dr. J. W. Fordham, who furnished the following particulars. Dr. Fordham was first sent for about 48 hours before the patient's admission into hospital. Dr. Hanna attended for him, and found the os uteri the size of a shilling, and the pains coming on regularly every ten minutes. She was seen again about twelve hours later, and the os found about the same size, the pains less frequent and not so strong. About eight hours after this, Dr. Fordham saw the patient, and found the os uteri high up, about the size of a five-shilling piece, soft and dilatable. He ruptured the membranes, and found that the fœtal head was about an inch above the external os, being prevented from descending by the projecting sacral promontory. Dr. Herman was then sent for, and after his visit the patient was with as little delay as possible admitted into the London Hospital.

State on Admission.—Patient flushed and excited, breathing hurried. Heart sounds normal. Abundant coarse *râles* all over chest: expectoration muco-purulent. (Patient said she had had a cough for four months before admission.) Urine acid, sp. gr. 1015, containing one-third albumen. Arteries hard and cord-like. Uterus reaching to ensiform cartilage, contracting regularly. Head presenting, position transverse, occiput to right, sinciput to left. Fœtal heart 148 per minute. Conjugate diameter, estimated by internal measurement with the fingers placed side by side, $1\frac{1}{4}$ inches. Diagonal conjugate, $1\frac{3}{4}$ inches. Distance between anterior superior iliac spines, 9 inches; that between iliac crests not greater. The patient was a dwarf, with rickety curvatures of legs.

At 6 p.m. Porro's operation was performed by Dr. Herman, Mr. Rivington and Mr. McCarthy being present. The abdominal incision was made in the middle line, beginning about 2 inches below the umbilicus, and was about 4 inches in length. The uterus was opened by a small transverse incision a little above the presumed situation of the internal os; and this wound was extended upwards by tearing. In this manner a sufficient opening was easily and quickly made, with but little hæmorrhage. An attempt was made to extract the child by the head, but as this could not be quickly done, a foot was seized and the child

thus delivered.[1] The uterus was then expressed from the abdomen, and the intestines at the same time kept back, by pressure on the lateral parietes. Lawson Tait's clamp was applied to the cervix, and screwed tight. While this was being done, the uterus partly expelled the placenta through the wound, which did not involve the placental site. The uterus was then cut away above the clamp. After the clamp had been tightened there was some free hæmorrhage coming from a vein apparently situated in the left broad ligament. This was stopped by ligature of the bleeding point. The peritonæum was then cleansed. A guarded pin was put through the stump above the clamp, and a strong whipcord ligature put round it below the pin. The abdominal incision was closed with four silk sutures, and dressed after the Listerian method. A 1 in 40 carbolic spray was used during the operation, which lasted in all 40 minutes.

About four hours after the operation it was found that hæmorrhage from the stump had soaked through the dressings. It was checked by tightening the clamp, and the wound was redressed.

February 15th.—Patient had at night $\frac{1}{4}$ gr. of morphia hypodermically, and has had a good night; not much pain. No vomiting. Pulse 120; Respirations 36; temperature normal. In the evening she vomited her food; the urine passed at 11 p.m. was very dark in colour, and there was considerable tympanites. Feeding by the mouth was discontinued, nutrient enemata being substituted.

February 16th.—Each quantity of urine passed has been successively darker in colour. Cough troublesome. Tympanites less. Occasional vomiting which causes pain, relieved by morphia and atropine. The clamp was again tightened. The wound was dressed in the morning, thymol being substituted for carbolic acid. In the evening it was again dressed, the stump being powdered with iodoform, and covered with dry salicylic wool. The temperature had then risen to 100·4°.

February 17th.—Patient had a very restless night. Severe pain in right side and groin. Breathing difficult, loud loose bubbling *râles* all over chest. At about 2 p.m. patient seemed very prostrate, and was for two or three hours only half conscious. An enema of brandy roused her and made her cough, after which she improved. In the morning the discharges were found offensive. Therefore in the evening an attempt was made to again make the wound aseptic by washing the stump with a solution of chloride of zinc, gr. xxx ad. $\overline{3}$j.; and it was again dressed with carbolic acid. Temperature rose in the afternoon to 101·4°.

February 18th.—A fair night. Discharges less offensive; pain better. A catheter passed up the rectum allowed some flatus to escape, and somewhat relieved patient. Temperature reached 101° in the afternoon. Urine for the first time free from albumen.

February 19th.—Temperature in afternoon reached 101·6°. Trace of albumen in urine. Progress otherwise apparently favourable.

February 20th.—Temperature in forenoon 101·8°. Still some pain, which is relieved by belladonna suppositories. In the afternoon the two upper stitches, upon which there appeared to be little strain, were removed. In the evening patient had a violent attack of coughing, and felt something give way, and a gush of fluid take place. The dressing was removed and it was found that the edges of the wound had separated.

February 21st.—Delirious last night. Temperature in forenoon 101°. Seems brighter and breathing better. Wound dressed, edges being brought together with strapping and silver sutures, and well irrigated with water, especially around the stump.

February 22nd.—Takes nourishment well. Delirious; pulse 160. Temperature in afternoon rose to 103·5°.

[1] The child survived and thrived.

February 23rd.—Died 7 p.m.

The *autopsy* was made on the following day by Dr. F. Charlewood Turner. The abdominal wound was gaping. The transverse colon was much distended, and immediately underneath the wound, presenting, as it were, at it. There was some purulent fluid in the pelvis, behind the pedicle, but no general peritonitis, the peritonæal cavity being shut off by adhesions between the intestines and parietal peritonæum, from the wound and the neighbourhood of the pedicle. Vagina and cervix uteri much congested. The pedicle was almost completely separated. Some cystic dilatation of veins at orifice of vagina. Lungs emphysematous and œdematous. Heart firmly contracted. Kidney surface smooth, pale, and opaque, with venous congestion, and presenting, in Dr. Turner's opinion, the appearances of tubular nephritis. Spleen and liver normal. Extreme rickety bending of humeri, femora, tibiæ and fibulæ. Pelvis, true conjugate, measured between the bones, soft parts not being included, $1\frac{1}{2}$ inches. Transverse diameter at brim $4\frac{1}{4}$ inches. Right oblique diameter $3\frac{15}{16}$ inches. Left oblique $3\frac{14}{16}$ inches.

Remarks by Dr. Herman.—Porro's modification of the Cæsarean section, by the removal of the great source of danger which is quite beyond the control of the surgeon, viz., the subsequent relaxation of the uterus, leading first to hæmorrhage, and later on to the escape of lochia into the peritonæum, offers such great advantage over the old Cæsarean section, that the last-named operation will probably become recognised as one which ought only to be performed when the cervix uteri is so diseased that a stump cannot be formed from it. The only points in the operation which call for remark are, first, the mode of opening the uterus, which was by making a small incision and extending it by tearing: a method suggested by Tarnier, adopted by Porro, and also by Godson, in his recently published case. By this method the amount of blood lost during the performance of the operation is lessened. Second, the occurrence of hæmorrhage from a vein in the broad ligament. The cause of this was not clear; but it deserves mention, as a complication which may occur in other cases. Death appeared to result in this case from the combined effects of three causes:—(1) bronchitis and œdema of lungs; dependent on (2) kidney disease; and (3) local peritonitis. The facts that the peritonitis was quite local, and that the patient survived nine days, form grounds for thinking that had the lungs and kidneys been healthy the patient would probably have recovered. The peritonitis seemed to have arisen in the manner in which Mr. Lawson Tait has pointed out that it usually is set up in cases in which a pedicle is secured outside the abdomen by a clamp, viz., by the trickling of secretions into the abdomen through a little opening left between the pedicle and the margins of the wound which embrace it; and when the pedicle is composed of muscular tissue which shrinks, it seems very difficult to devise any way of closing the abdominal wound around the pedicle so accurately as to make certain of preventing this.

The "John Reid" Prize.—The prize founded by the sister of the late John Reid, surgeon, Glasgow, in memory of her brother, is awarded for the best original research bearing on any of the departments of medical science, conducted in one of the hospitals or laboratories of Glasgow. The prize, which is of the annual value of 25*l.*, was, at a meeting of the trustees held on the 5th instant, awarded to Mr. H. Lyon Smith for two years, who, in the Pathological Laboratory of the Royal Infirmary, conducted an investigation as to the changes found in the circulation through the kidney in certain pathological conditions. Mr. Leonard Williams was awarded 10*l.* by the trustees in recognition for his paper on "The bacillus of tubercle." This investigation was conducted in the Western Infirmary.

VIENNA GENERAL HOSPITAL.

REMARKS ON A CASE OF THE SO-CALLED "SKRLJEVO" DISEASE.

By Prof. NEUMANN.

The patient, a native of Dalmatia, aged 24, states that four years ago he had intercourse with a woman who suffered from skrljevo, and that since that time he had suffered from a disease which began with an ulceration on the penis, and was followed at an interval of some weeks by ulcers and nodules on the skin, which appeared and disappeared. He also calls his disease skrljevo. The patient now presents the following symptoms:—On the upper and lower extremities are to be seen round and oval cicatrices varying in size, denuded of their pigment in the centre, but containing some pigment at their periphery. These cicatrices are especially marked on the extensor muscles of the extremities, in several places they run into each other and present a bilobate or trilobate outline. The forehead, the ridge of the nose, the zygomatic processes, and the upper-jaw are covered with white cicatrices of the size of a lentil, the space between these cicatrices presenting several nodules. Similar cicatrices and nodules are also present on those parts of the head which are denuded of hair; the two alæ nasi are converted into thin cicatrices, and stand at a higher level than usual, so that the septum is quite uncovered. Taking all these symptoms into consideration it is evident that this affection is syphilitic disease in the tertiary stage, in fact tertiary syphilis. The process must be considered an acute and malignant one, such severe symptoms having developed in such a proportionally short time.

The reason why the disease has taken on this acute course is to be sought in the bad conditions under which the patient has been living. He has been in want of proper nourishment, and moreover, he has not been submitted to specific treatment during the four years that he has been diseased; but has always tried to heal his sores by means of domestic remedies, by drinking different sorts of tisanes and so on. In this way it is to be explained how a disease of such a malignant type has developed in so short a time. If a disease of this kind is not treated in the proper manner, if, moreover, it is complicated with other diseases, there take place aberrations in the course of the syphilitic process, giving rise to symptoms which deviate very often from those we are accustomed to see, and which we recognise as syphilis only with difficulty and after long and careful examination. Other chronic diseases such as lupus, psoriasis, elephantiasis Arabum, and the ulcerative processes, are also due, in a certain degree, to differences produced by irrational treatment, and by the bad conditions under which the patient is living. The layman as well as the inexperienced physician are inclined to refer such cases to a local cause quite unknown, and as the latter does not recognise the disease, and as the cases are frequently limited to a small district of the country in which he lives, he calls them endemic. Hence names have been invented for different endemic forms of disease, as skrljevo in the Fiume littoral, radesyge in Norway, fibbens in Scotland, morbus dittmarsicus in the marshy regions of Germany, falcadine in Italy, pian and yaws in Africa, all of which are believed to be endemic diseases with an independent existence. But if we examine the diseases which are called by such different names, we find that they represent a series of chronic diseases, which are to be found also with us, and among which syphilis, lupus, scabies, psoriasis, and chronic skin-ulcerations are the most common and play the chief part. These diseases develop themselves in different ways under different local conditions, and so present symptoms which deviate from those we are usually accustomed to meet. For instance, an exact and precise enquiry into the character of the disease which is called "skrljevo," shows it to be simply the same affection which we call syphilis. The disease in such a case first runs its regular course; then, owing to unhealthy conditions, as the living of many families in a patriarchal manner, uncleanliness, want of education and so on, the affection develops itself rapidly. Such symptoms as papulæ on the sexual organs and the mouth, ulcerations and bone-diseases are not prevented from developing; they appear in a severe degree and persist for a long time, so that the different stages run into each other, and in this way produce morbid changes of a quite different type from those ordinarily met with.

Further, we often have the opportunity of convincing ourselves of the fact that other non-syphilitic diseases, as especially lupus, scabies, psoriasis, benign and malignant growths, are comprised in the name of skrljevo. In such cases the physician must first make the diagnosis of the disease, must separate the syphilitic forms from the non-syphilitic, and as to the first an anti-luetical treatment has to be observed. The syphilitic cases of skrljevo are characterised by the fact that an anti-syphilitic treatment, especially a mercurial one, is followed by rapid cure.

Medical Times and Gazette.

SATURDAY, AUGUST 16, 1884.

The Eighth International Medical Congress was opened with much ceremony by the King and Queen of Denmark, at Copenhagen, on Sunday last. Notwithstanding the dismal forebodings uttered in many quarters that the cholera would ruin it, it is a splendid success, and the false prophets must hide their diminished heads. Fine weather and a warm welcome are rendering the visit to Copenhagen thoroughly enjoyable to all the members of the Congress. If any complaint were possible under such circumstances, the heat alone would receive a small modicum of abuse, but the occurrence of an almost tropical thunderstorm has cleared the air and freshened the aspect of the city. The extreme cleanliness of the streets, and the rough but regular granite pavement are a marked feature of Copenhagen by day, and render the passage of traffic by night a source of decided annoyance to the Congressionists who vainly endeavour to sleep through the continuous roar which begins soon after 5 o'clock. The sections which sit from ten till twelve, and again from one till three, are being most zealously attended, and in the interval the Committee of the Congress have organised a public luncheon on the "Help yourself" principle, which has proved itself a most popular innovation. About 1,700 names have already been inscribed, a number far exceeding the estimate. The surgical section is the most numerously attended, but medicine and pathology are also attracting large audiences. On Wednesday an excursion was made on a gigantic scale to Cronborg Castle, where luncheon was provided, the excursionists afterwards visiting Hamlet's Tomb and Frederiksburg Castle. A friendly rivalry

exists between America and Germany as to whether the next Congress shall take place in Washington or Berlin. The point will be decided on Saturday.

The number of deaths from cholera at Marseilles and Toulon shows that the epidemic is certainly diminishing in severity in those towns, but the suburbs of the former are reported to be suffering considerably in proportion to their numbers. At Arles the death-rate from cholera is still very high, and forty deaths have been reported in two days at Les Omergues, a little village in the Department of the Basses-Alpes. At Toulon, a Reuter's telegram informs us, there have been 8,000 cases in all with 800 deaths, and the number of sick persons is still considerable though the death-rate is much lower. As we surmised last week, a considerable number of the most recent cases have been amongst the returning refugees. Up to the present, 32 towns or villages in France have suffered, and no authenticated case has occurred in Paris. Cases continue to occur in the province of Turin, but the epidemic does not seem to be gaining ground there. The rumour that there had been a case of cholera in Switzerland has been officially contradicted.

The cholera has not yet reached us, though infected ships continue to cause some temporary anxiety by their arrival at one or other of our ports. Our Port Officers of Health are, however, all on the look-out, and a case of cholera will not be easily smuggled past them just at present. The latest verdict on the subject on the part of the Local Government Board is a prohibition against the landing of rags from France until September 15th. It will be remembered that a similar step with regard to rags coming from the East was taken during the outbreak in Egypt, and the propriety of it was fully recognised at the time. At the meeting of the Association of Public Sanitary Inspectors, on Monday evening, Mr. Chadwick, the President, read a paper on "Preparations for meeting the cholera," and pointed out how entirely the experience gained in this country during the epidemic of 1848-49 in reference to the mode of propagation of cholera had been verified by the outbreak at Toulon. If the cholera did not come the labours of all the sanitary inspectors during the last few weeks would not by any means be thrown away, a vast amount of good, in the shape of the prevention of the other foul air diseases would have been wrought. The practice of quarantine he denounced as useless and mischievous, effectual cleansing of persons and places being the only reliable preventive measures.

Miss Florence Nightingale has been interviewed, so to speak, by correspondence, on the subject of cholera prevention, by an American paper. Her reply is vigorous and to the point. She considers it as proved that cholera is not communicable from one person to another, but that it is a local disease, an epidemic affecting localities, and there depending on pollution of earth, air, water and buildings. Isolation of the sick, quarantine and cordons are powerless to check the disease, and may indeed be positively harmful by directing attention away from measures that might be useful. To trust for protection to stopping intercourse she believes would be just as rational as to try to sweep back an incoming flood, instead of getting out of its way. The lesson to be learnt and the motto for every one to adopt is—"Set your house in order."

Our Vienna correspondent has favoured us with some valuable remarks by Professor Neumann on a case of that unpronounceable disease Skrljevo, which we publish in our Hospital Report column. In connection with this case our correspondent writes :—In the spring of this year this curious disease formed the subject of a discussion in the Austrian Parliament. The Government proposed that thirty thousand florins (2,500*l.*) should be granted for the suppression of the disease, which was extremely prevalent in the maritime districts of Croatia and Dalmatia, and which, according to the opinion of the chief sanitary authority, and of the Professors Hebra and Sigmund, was nothing else than syphilis. Persons suffering from this disease, or suspected of suffering from it, were to be compelled to undergo regular treatment. Dr. Roser opposed the motion, and proposed that a committee of specialists should be appointed to again enquire into the character of "skrljevo," and that the necessary measures should be taken after they had reported. Professor Schneider, the adviser of the ministers, took the side of the Government, and referred to the opinions already pronounced by the authorities mentioned above, upon which the motion of Dr. Roser was thrown out, and the proposal of the Government accepted.

Dr. Julius Ritter v. Massari, Privat-Docent for Gynæcology and Obstetrics, and son-in-law to Professor Braun v. Fernwald, died on the 12th July, at Dornbach, near Vienna, at the age of 39 years. He had for several years been the assistant of Professor Spaeth, in the clinic of gynæcology, and was known as a skilful operator and a good teacher.

The Medical Faculty of Innsbruck have proposed Dr. Gustavus Gärtner, assistant to Dr. Stricker (Professor of General and Experimental Pathology at Vienna), for the Extraordinary Professorship of those subjects at Innsbruck. The vacancy was caused by the retirement of Dr. Dietl, who was obliged to resign his chair owing to his state of health. Dr. Gustavus Gärtner was proposed *unico loco*, Dr. M. Löwit, assistant to Professor Knoll, in Prague, obtaining only "honorable mention."

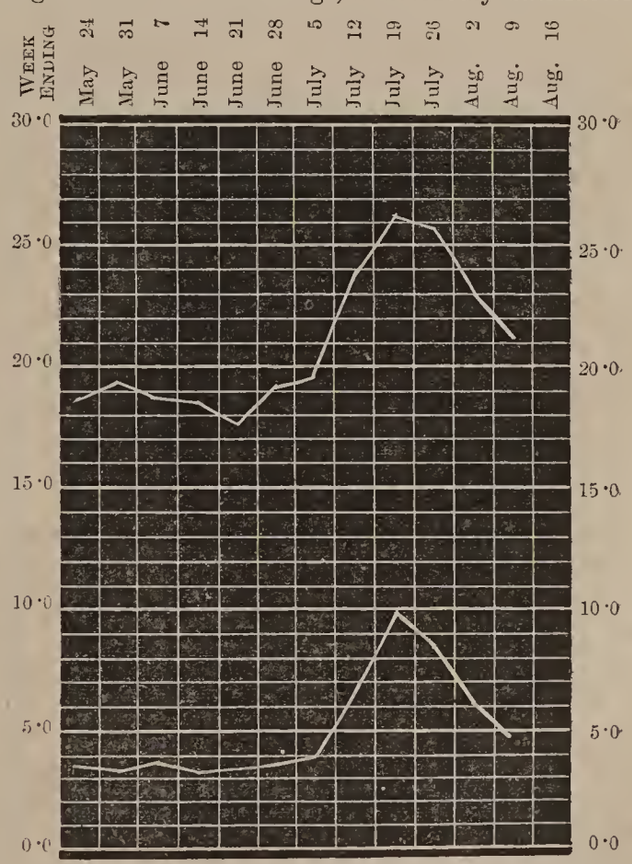
At a recent meeting of the Professoren Collegium of the Vienna Medical Faculty on the 19th July, it was resolved to recommend to the Government the Privat-Docents Wölfler, Englisch, Hofmokl, Mauthner, and Ultmann, for extraordinary professorships, as they have already been admitted by the committee appointed to consider their claims. At the same meeting two new proposals were made : Professor Bamberger proposed Primarius Dr. Oser, and Professor Nothnagel recommended Primarius Dr. Charles Bettelheim, for extraordinary professorships. It was resolved at the

same meeting not to proceed to the election of an ordinary professor in the second clinic of Ophthalmology, which has become vacant by the death of Professor Jäger, till the winter semester ; in the meanwhile Dr. v. Reuss has been entrusted with the office to deliver lectures in that clinic for the next semester. The general opinion is, that the ordinary professorship will be conferred on Professor Mauthner, as he had already been proposed *secundo loco* after the retirement of Professor Arlt. The Minister of Education has confirmed the election of Dr. Maximilian Herz as Privat-Docent in Children's Diseases, and that of Dr. Edward Zillner as Privat-Docent in Forensic Medicine in the Medical Faculty of Vienna.

The fifty-seventh annual meeting of German Naturalists and Physicians will take place at Magdeburg, from the 18th to the 23rd of September next.

The death of Sir Erasmus Wilson on Friday last has deprived the medical profession of this country of one of its most prominent men. It is more than half a century ago since Sir Erasmus, after studying at Aberdeen and St. Bartholomew's Hospital, commenced his professional career. Though he afterwards confined his attention entirely to a special subject, he began life as a surgeon, and early showed a marked leaning towards conservative surgery. His appointment to the Middlesex Hospital, as Lecturer on Anatomy, gave him the opportunity of showing what a thorough anatomist he was, a fact evidenced by his "Anatomist's *Vade Mecum*," which passed through many editions, and the beautiful plates which he brought out conjointly with Dr. Jones Quain. It was at the Middlesex Hospital, too, that he first showed that interest in and grasp of skin diseases, the subject to which a few years later he gave his whole attention. His *magnum opus* on Diseases of the Skin was one result of this exclusive study, and although it is not perhaps up to date in regard to the latest histological discoveries, it is a book which the general practitioner will always be very glad to make room for on his shelves. It would take a long time to enumerate all the writings of Sir Erasmus Wilson, for his pen was for many years a very busy one; several of them will be found scattered through our periodicals of a quarter of a century ago. We have said that one result of his devoting himself to skin diseases especially, was the production of a book on the subject; another result was the acquisition of considerable wealth, which he turned to better account than most successful practitioners are in the habit of doing. In 1869 he offered the sum of 10,000*l.* to the College of Surgeons to found a Chair of Dermatology, and for several years he held the professorship himself. On his resignation of it, not many years since, it was felt that the interests of science would be better served by a Chair in Pathology, and accordingly the Chair of Dermatology was given up and the present Professorship of Pathology established in its place. More recently he showed that he had not forgotten his old *alma mater*, and founded the Chair of Pathology in the University of Aberdeen, which, in the hands of its present occupant, has already borne good fruit. For the Infirmary at Margate he always had an affection, and not long ago he greatly increased the usefulness of that excellent institution by building a new wing, and on the occasion of the International Medical Congress meeting in London, in 1881, he took the members of the Skin Section, of which he was the President, down to Margate to inspect it. The Medical College at Epsom, too, has good cause to remember his generosity. In 1881 he became President of the College of Surgeons, and at the end of his year of office, being in somewhat weak health, he gave up practice, and left London altogether. A short time since the College of Surgeons voted him an honorary gold medal, in recognition of his services to the college and of his valuable presents to the museum; and as we announced in our last issue, the medal was presented just three days before his death.

The fall in the death-rate of London has continued, the rate for the past week being 21·1 per 1,000, exactly 5 per 1,000 less than it was four weeks ago. The actual number of deaths was however 29 above the average for the past ten years. The deaths from zymotic diseases numbered 379 as against 484 during the preceding week. Diarrhœa accounted for but 219, being ten below the average, a decidedly satisfactory



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London in each of the past twelve weeks.

state of affairs when we bear in mind the intense heat experienced at the latter part of the week. The deaths from small-pox rose from 11 to 16, and the number of admissions into the small-pox hospitals from 66 to 110, so that it is to be feared that we are not quite so near the end of the epidemic as last week's statistics might have led us to hope. Bolton heads the list of the chief towns with a general death-rate of 30·2 per 1,000,

whilst Salford occupies the unenviable position of having scored the highest death-rate, 10·1 per 1,000, during the week, from diarrhœa.

The International Congress of Hygiene which is to be held at the Hague, under the presidency of M. Heemskerk, the Dutch Minister for the Interior, will tread close upon the heels of the Copenhagen meeting, many of the visitors to which will, no doubt, take it on their way back from Scandinavia. It opens on Thursday, August 21st, and closes on the following Wednesday. Specially favourable terms are offered by the railways leading to the Hague to members of the Congress, a reduction of fifty per cent. on the fare being allowed by the State railways of Holland and Belgium, and by the "Nord" of France. To obtain this reduction it is necessary to produce a "carte d'inscription," which may be obtained from the general Secretary, Professor Van Overbeck de Meijer, of Utrecht, for the sum of ten florins, equal to something under seventeen shillings. The arrangements of the Congress do not differ from those which obtain at other congresses. There will be general meetings, at which papers and communications of general interest or superior merit will be read, while the hard work of the Congress will be distributed over five sections, viz., (1) General and International Hygiene; (2) Urban and Rural Hygiene; (3) Personal Hygiene; (4) Professional Hygiene; and (5) Demography. In the first section, Dr. Koch will hold forth on a subject not yet announced, and the report of the able committee chosen at last year's Inter-Colonial Medical Congress, to consider the proposed foundation of an international league for the collective investigation of epidemics, will be presented and discussed. In the second section two somewhat cognate subjects—*déboisement*, or the destruction of forests, and cremation—will come on for discussion. In the third section Professor Brouardel will introduce the subject of adulteration, and M. E. Vallin, of Paris, will speak of the danger of feeding on the flesh and milk of tuberculous animals. Other interesting subjects will be discussed, including educational over-pressure. In the fourth section the prevention of industrial diseases, and the influence of burial societies will be discussed; while in the fifth section several important statistical subjects will engage attention. We are sorry to see that our country is so meagrely represented amongst the contributors to the Congress. Possibly the favourable terms offered by the railway companies may induce some to go, at any rate in the guise of listeners. They could not find a better place to spend a holiday than in the shady streets of the Hague and on the sand dunes of Scheveningen.

The transactions of the Inter-Colonial Congress held at Amsterdam last autumn have just reached us. The most important debate was that on Quarantine, introduced by a paper by Professor de Chaumont, followed by papers from Dr. F. J. Van Leent and Mons. M. Kruyt. The discussion was continued by several members, including Prof. T. R. Lewis and Dr. Joseph Ewart, both of whose speeches appear in full in English, a compliment thoroughly well earned. Our representatives on this occasion have deserved well of their country, for besides the above, papers were read, or communications made, by Sir Joseph Fayrer, Dr. Norman Chevers, Dr. Dyce Duckworth, and Dr. Waring.

It will be remembered that some two months ago public attention was called to the subject of over-pressure by a death certificate in which the medical man had appended the remark, "This is the second death in my practice within a week, the cause of which was produced from pressure at a Board school." There was a good deal of correspondence about it at the time, and the London School Board referred the matter to a committee of two of their number for investigation, laying before them also a letter addressed by Dr. Borham, the practitioner in question, to the Education Department. It will surprise no one to learn that that committee have reported in effect that the case is not proven. To establish the true relation of cause and effect in these cases is one of the most difficult medical problems of the day, and in our opinion could only be attempted, with any prospect of success, by medical men accustomed to examine and deal with large numbers of children during the school days of early childhood. Absolute proof in any given case that cerebral symptoms were due to overwork will always be difficult, if not impossible, to obtain; but when dealing with large numbers the objections that might be raised in an individual case would have little if any weight.

We have been much interested in some remarks made at a recent trial in Glasgow, by Sheriff Guthrie, on the right of parents to remove their children from a hospital when warned that such a proceeding would be likely to cause the death of the child. The case which was the occasion of the observations was an excellent one for the purpose. A little child had been run over by a tramcar and taken into the infirmary. Whilst there tetanus set in, and the child was removed by his mother contrary to the opinion and advice of the medical authorities. The child died within an hour of his removal, and the parents brought an action against the tramway company for causing the death of their child. The parents lost the case, there being no evidence of carelessness on the part of the defendants. In giving his decision the sheriff is reported to have said: "The infirmary authorities seem to think they are bound to hand over children, whatever their state may be, on the demand of their parents. I entirely demur to that opinion. I think it is the duty of the infirmary authorities to refuse to permit unnecessary risk to life, and no Court of Law would for a moment sanction the doctrine that the parent was legally entitled to cause his child's death, when it is patent to medical authorities that such would be the necessary result of removing the patient." And he went on to say that even if the defendants had been found not to have used all due care, he would have had some difficulty in holding them liable in damages and awarding solatium for the death of the child to the parents who possibly by the removal of the child from the infirmary had caused its death.

In this last opinion there can be no doubt that the sheriff, for whom we have great respect as a man of common sense, and what is even more, as one who has the courage of his convictions, is in error. It has been laid down in the law courts over and over again, with perfect justice, that it is no defence to a charge of murder or manslaughter to say that the person might have recovered with more skilful treatment. You cannot compel a wounded person to call in medical aid at all, or to follow the advice that is given him when he does place himself in the hands of a doctor, and to this part of the sheriff's argument we must therefore demur. On the general question as to the right of parents to remove their children from a hospital whenever they choose, there is a good deal to be said. At first sight one would be inclined to say, that undoubtedly a parent must have a perfect right to remove his child from a hospital or institution if he wishes to do so. In the case of adults, we never insist on keeping a patient in a hospital against his will, provided we are satisfied that he is sufficiently in possession of his mental faculties to understand what is told him and be responsible for his actions. Were the rule otherwise, a hospital would tend to become a prison, having once entered which a man surrendered his personal liberty for the time being. This is not the case, and it is not to be desired that it ever should be; and, therefore, when the consequences of the step he proposes to take have been fully explained to the patient and his friends, he must be left to do as he pleases. We recollect an instance where a patient, with intra-thoracic aneurysm, who insisted on going out after being warned in the most positive manner of the great risk such a step involved, fell dead on the door-mat outside the ward. Even the Glasgow sheriff could not have censured the hospital authorities in such a case.

But with children the case is a little different. We can quite understand and appreciate the feeling which would make a parent take his child out to die at home when assured that his recovery was hopeless, even though such removal would in all probability shorten the few remaining hours of life yet left. But when a parent is distinctly told that to remove his child is to make his death certain, whereas if left in the hospital there is a possibility of his recovery, the man who, under such circumstances, persists in taking his child away is not to our mind adequately punished by the censure of a coroner's jury. It will perhaps be objected that there are no diseases where such an alternative could be laid before the parent with perfect confidence and truth. To this we would reply that there certainly are such instances; in the case of typhoid fever for example, late on in the disease, when the patient has had some hæmorrhage from the bowel, or there are signs of peritonitis, recovery is still possible, though, of course, we could give no positive assurance of it; and the same would apply to a child on whom tracheotomy had been performed but a short time for diphtheritic laryngitis. Surely the parent who would remove his child under either of these circumstances is just as guilty of manslaughter as the shaker who, from ignorance and superstition, refuses to have medical advice for his child at all.

There are many other ways in which a parent may neglect to do the best he can for his child, or rather may refuse to allow someone else to do it for him. How often do we hear the expression—I would rather follow him to his grave than have him operated upon. The wish in such a case is usually gratified, for very few men care to operate in direct opposition to the parents, knowing that failure, which of course is always possible, may expose them to a persecution of which no one can foretell the termination. There is probably not a physician in London in hospital practice who has not lost a case of typhoid fever through a grape or an orange surreptitiously given, and we recollect one instance in which a woman, who had already caused the death of one of her children by giving him an orange when suffering from typhoid fever, was caught in the act of trying to do the same kind turn for another of her children. If that woman could have been prosecuted and convicted of intent to do grievous bodily harm, if not indeed actually to kill, hospital authorities would have been supplied with the material for a most useful placard, and one which we venture to think might prove the means of saving many lives.

Our Philadelphian namesake is much exercised that the members of the Massachusetts Medical Society should have agreed to admit women within their portals. It admits the justice of treating legally qualified practitioners on equal grounds, but fears that in an old established community the admission of women into the medical societies on equal terms with men will encourage a class of *dilettante* doctors, "women who enter at medical schools as a relief from china-painting and South Kensington art work, and other like serious pursuits, and who receive a diploma in due course, without having any real appreciation of the dignity or the duties and responsibilities of the medical degree." If these things be so, surely the fault consists in admitting them into the profession, not in allowing them to join the medical societies. To a woman who has been admitted into the profession it seems to us to be our bounden duty to hold out the right hand of friendship instead of putting obstacles in the way of her increasing her slender stock of professional knowledge. We fail to see the expediency of our contemporary's proposal to require that candidates for admission into their medical societies shall have been at least five years in practice, and shall have attained the age of thirty. In this country, at any rate, such a restriction would not conduce to the scientific value of the papers read at the meetings of our societies.

The *Boston Medical and Surgical Journal*, commenting on the same decision, opines that while the question, in this particular instance, has been settled, that of the wisdom or profit of women attempting the practice of medicine, save in very exceptional cases or under very exceptional circumstances, remains entirely open. "We are aware that we are not on the *popular* side of the question, that our views are called ungenerous by those

who believe there must be a selfish motive, and narrow by those with whom novelty is synonymous wisdom. But we dislike demagogism, whether in politics, in society, or in the professions, and do not think improvements necessarily result from change. We believe that women in this particular community are already aided and abetted in too many foolish fads and fancies. There is too much bad piano playing and too little good cooking, and sewing taught them. They, more than men, are too much encouraged already to *attempt* uncommon things rather than to find an interest and profit in doing ordinary things thoroughly well. In regard to this particular fad of encouraging them to practice medicine, we know that some of those who have been in favour of it, and have even now voted to admit women to the examination by the Massachusetts Medical Society, but who are candid, acknowledge that their experience derived from consultations with our best female practitioners, and from cases sent to such for treatment, tends to convince them it is a mistaken movement. If the sum total of human happiness can be increased by the pursuit by women of what have hitherto been regarded as virile occupations, so much the better; but both theory and practice lead us to believe it as little in regard to medicine as to law, theology, or politics. No action of medical societies or of legislatures can alter the male and female physiology, and the experience of ages is the best index of the mental, moral and physical fitness of each sex for the profitable exercise of certain functions. If we desire to prove these problems over again for ourselves in this age and community, there will undoubtedly be a limit to the amount of harm which will result, and it may keep us out of worse mischief." Such an expression of opinion is noteworthy as coming from a country where the "equality of the sexes" is more loudly proclaimed and more generally allowed than in our own; but it contains truths to which we in England should not be blind, and which have an application much wider than that involved merely in the admission of women to the profession and practice of medicine. That is after all a comparatively small question, and every year that passes shows the more forcibly how little it justified the frantic feelings it excited amongst some members of the profession, feelings which, it is whispered, still smoulder on in certain elevated regions.

The result of the trial at Liverpool, Good *v.* Whittle, reported elsewhere in our pages, is satisfactory, not only to the defendants, but to the profession at large, since it indicates clearly that, even in very difficult cases, medical men have only to act straightforwardly and with reasonable care, in order to secure themselves against any legal after-consequences of giving a certificate of lunacy. Cases similar to that of Mrs. Good are very common and very difficult to deal with. The patient is an intelligent woman, capable of withstanding a rather severe cross-examination, of giving smart answers, displaying an ordinarily good memory, and reasoning fairly well. Insanity could not, or could scarcely, as it appears, be detected in her conversation. But it showed itself in her acts. The difficulty of certifying in such cases as this is often extreme. The conversation of these patients is often rational, intelligent and shrewd. Their acts may be a little eccentric, but for any single act they have a most plausible explanation ready. A casual observer would repudiate with warmth the notion that they are insane. But on longer acquaintance it is found that explanations are continually being required. Each explanation may be quite valid for each particular act, but then the eccentricities are so numerous and so diverse that the explanations become inconsistent with each other. Even then, however, it may be extremely difficult to lay a finger on any one act or expression and write it down in such form as to convey to a stranger unquestionable proof of insanity. Often it is only the gradual accumulation of small indications repeated again and again that at length carries conviction to the mind, and enables the observer to arrive at the positive conclusion that the patient is insane. And no one of these indications is of itself of sufficient cogency to be adduced as a proof of insanity. It is only their sum that convinces, and it is precisely this aggregate that cannot be introduced into a certificate. Bearing in mind the difficulties that beset the certifier in cases of this class, the verdict of the jury is eminently satisfactory. Had Mrs. Good been sent to a private asylum, it is doubtful whether the verdict would have been as favourable to the defendants as it is; and had Dr. Mold been the proprietor of the asylum, and the certifying doctors been his intimate friends, the conditions would have been still less favourable for such a verdict. The result of the trial supplies another argument to those who would abolish private asylums altogether.

In a preliminary statement of Dr. Sordes, Inspecting Physician for the Protection of Infants out at Nurse, published in the *Lyon Médical*, a most satisfactory account is given of the operations of the "Loi Roussel" in the Department of the Rhone during the last five years. This law was passed by the French parliament at the instigation, and in consequence of the perseverance, of Dr. Roussel, its chief provision being the submission of all hired nurses in France, and their charges, to regular official medical inspection. Dr. Sordes has held the post of inspector since 1879, and the figures he reports are as gratifying as they are surprising. Prior to the institution of the inspectorate, the mortality of children put out to nurse was computed at 40 or 50 per cent., and in 1879 and 1880 the deaths still reached 46 and 22 per cent. respectively; but this arose from the difficulty there was found at first in bringing the parents and nurses under the operation of the new law. In 1881, however, the mortality fell to 8·50 per cent., in 1882 to 5·50 per cent., and it is anticipated that in 1883 it will not be found to be higher than 3 or 4 per cent.—and that, notwithstanding that $\frac{19}{20}$ths of the infants are brought up by hand. The mortality of these inspected infants is indeed very sensibly less than that of infants brought up at their own homes. For, as the inspector's visits cost nothing, they are summoned even

unnecessarily for the most trifling ailments; while amongst the peasantry, fear of expense and want of confidence in doctors lead to dangerous delays. Dr. Sordes has had under his charge since 1879 about 1,200 infants, who at the mean mortality of 40 per cent. would have furnished 480 deaths, while he lost only 83 of the children, notwithstanding the great mortality of the two first years; while the success of his colleagues in other parts of the Department is equally great. Never was money better spent, Dr. Sordes concludes, than in paying for this successful organisation under the "Loi Roussel."

So far the Committee appointed to enquire into the reality of the protection afforded against hydrophobia by the recent experiments of M. Pasteur, have entirely verified his conclusions. All the 23 dogs which M. Pasteur submitted as protected have been found proof against inoculation with the virus of rabies, whilst eight unprotected dogs on whom intra-venous inoculation was performed, and five unprotected ones which underwent trepanning and inoculation, all became mad, and three out of six dogs experimented on by being bitten by mad dogs met with the same fate. The Committee are now going to see if they can obtain the same success with the inoculation of the protective material that M. Pasteur has had, and further to investigate whether, after a dog has been bitten, the effects can be modified or prevented by inoculation.

SIR WILLIAM GULL ON THE NEW MACHINE.

The profession has seldom had placed before it an address which at once suggests and deserves such deep reflection as that which Sir William Gull delivered at Copenhagen on Thursday, and which we publish in full in another column. There are, indeed, few men in our ranks, either here or abroad, who could have brought to the treatment of the subject of International Collective Research at once such steadiness of judgment and such sweep of thought. The medical mind is exposed to two dangers in relation to this topic. Those on the one hand who fully realize the extreme difficulties of scientific research, and the limitations of the average practitioner, are tempted to think very lightly of collective investigation as a means of medical progress. Those on the other hand who do not adequately appreciate either those difficulties or those limitations, and who fall readily under the sway of large ideas, are apt to think and to write too enthusiastically of the movement, and to expect of it results which it can never achieve. Sir William Gull steers clear of both these tendencies. He admits that collective research "assumes the combination of exact observation and record, with refined criticism and analysis; that it demands the highest scientific perception, with the humble collection of the meanest facts." And yet he believes that it may bear fruits which it is "impossible to over-estimate, whether we limit our view to the results on our members, on the profession as a whole, on the public good, or on the brotherhood of nations." And further, believing this, he is tempted into no exaggeration of language or statement, but propounds his argument with studied moderation. Whatever else there may be in his address, there is certainly no "schwärmerei." When Sir William Gull—who, so far as his influence on medical thought is concerned, is nothing if not sceptical—can see reason to expect useful results from what is more or less amateur investigation, it would be affectation on the part of younger believers in scepticism to set their face against it.

It will be a new idea to those who are not read in philosophy to learn that collective scientific investigation is not a modern project, but that it suggested itself nearly three centuries ago to Francis Bacon as the new machine, the "Novum Organon," whereby the facts of nature might be observed, arranged and treated in such a way as to come within the mastery of man. Bacon's magnificent idea, and with it his reputation as a philosopher, fell into undeserved disrepute, because it was found in effect that the discovery of natural laws did not follow the lines he had laid down; but that instead of observing a multiplicity of facts, and then proceeding mechanically by comparison and elimination to arrive at general truths, the process adopted by born investigators was to hazard an hypothesis on the warrant of a few facts, and then to verify it by more extensive observation and experiment. Only by this means, it has been maintained, is the necessary stimulus and direction obtained for the devising of new experiments and the search after new facts. It is evident, however, that this is true only of certain sciences and certain forms of research. Where an investigation depends entirely on experimental research, or is directed to the discovery of hidden general laws, it is obvious that the Baconian method is inapplicable. For it leaves no room for that use of the scientific imagination which can alone suggest a fruitful line of enquiry. Where, however, an investigation does not depend on direct experiment so much as on the observation of facts scattered over a wide area, and on the study of those experiments which Nature herself makes when, where and how she may, it is obvious that the work of the professional investigator may and must be supplemented by that of less skilled enquirers who, in proportion to their numbers and distribution, have better opportunities of observation than he can command. The promoters of the Collective Investigation movement propose to combine the two methods of research, supplementing the scientific insight and imagination of the skilled and picked investigator, with the powers and opportunities of observation of the rank and file of the profession. The memoranda stating the object of particular enquiries and turning the attention of the observers in the required direction, will form the link between the one class of mind and the other. Through these, says Sir W. Gull, the influence of the more advanced intellects of the profession will extend through the whole of it, and will reach its most scattered and distant members.

As medicine is to be the first science to which this new modification of the Baconian method is to be

applied, so, it may be pointed out, it is almost the only one in which it would be practicable. In no other branch of natural science are there so many observers more or less efficiently trained, and enjoying, from the very nature of their daily work, so many hourly opportunities of registering important facts. Even as it is, medicine, like botany and zoology, has been in great measure built up of facts observed by, so to speak, amateur observers, that is, observers with whom observation has been the secondary and not the primary business of their lives. The only matter for surprise and regret is that the valuable work of these observers has not already long ago been systematised, directed and stimulated by some central organization. Hereafter, let us hope, the present generation and the present year will be looked back upon as forming as important an era in the progress of medicine as the publication of Bacon's great work formed in the history of scientific enquiry in general. After the forcible and closely reasoned address of Sir William Gull, we do not think that there will be many who will have the courage to laugh down the new movement. Difficulties of course there will be. The average man is not to be turned into a trustworthy observer, because his observations are collected and published. The "idola" of which Bacon warned us will still distract and disturb the search after truth, but as Sir William Gull has shown, the very magnitude of the operations of the Collective Investigation Committee will tend to neutralize and eliminate these sources of error. The "idola tribûs," the errors to which minds are liable from their national constitution, will be naturally reduced when many nations share in the work; while the "idola specûs," the errors arising from egoism and individual bias will be eliminated when the observer is only an impersonal unit in a vast multitude of fellow-workers. It may be calculated that those who only work for personal renown will not enter enthusiastically into the new movement, but that it will be left to such as are actuated mainly by love of truth and an ardent desire for human welfare—the motives which the author of the "Novum Organon" put forward as the main incentives to scientific research.

THE ELEMENTS OF HYGIENE IN SCHOOLS.

Despite our boasted educational facilities and the rapidity with which so many new buds on the tree of knowledge are expanding under the fostering or forcing influence of a culture which is almost hothouse in its character, the medical practitioner is still only too familiar with what he can but regard as the woeful ignorance or stupid defiance of sanitary principles amongst the people. If he be young, it startles him; should he be careless, it will baffle him; and, in any case, it may sometimes well dishearten him. The soundest diagnosis and the most careful nursing and the most appropriate pharmacopœial treatment may avail nothing to the patient who continues the victim of a stupid oversight or of a perverse misapplication of the fundamental laws of sanitary construction. Even in those cases which seem at first sight less serious, the ultimate result may be, for that very reason, even more disastrous. The evil is not so marked, perhaps, as to arrest attention, but it is as effective as it is insidious; and because he is not at once prostrated by its influence, and does not therefore credit its existence or believe in its malignity, the patient continues to live placidly under the shadow of the upas tree, to whose deadly influence his bodily health does not, indeed—to use the language of extremes—immediately succumb, but from which it none the less continuously suffers. And, after all, in the vast majority of cases, the *fons et origo* of all the mischief is merely a simple something done in the way it should not have been done, or not done when it ought to have been done; an obvious sin of commission or of omission in construction or in application, which benefited nobody in the doing of it, which saved neither time nor money, which may even have entailed needless expenditure of both; the necessary outcome, in short, of blind ignorance or carelessness which would be criminal only that it is so common. It is needless to specify instances; every practitioner can from his own experience recall examples where the patient has suffered from faults for which he was not responsible and which he may have lacked either training or intelligence to detect, or from his personal neglect of such simple rules and precautions as he would readily and easily have carried out, had he but been acquainted with them. It is more to the purpose to ask where the remedy for these evils is to be found. Obviously, they can be cured only by attacking them at the fountain head. There is no advantage in inverting the pyramid, and but little is gained by becoming learned in prophylaxis after avoidable but irremediable mischief has been done. In other words, if men and women are to be educated in the proper culture and development of their bodies as well as of their minds, if it is well for them to possess a *corpus sanum* as the fit temple and instrument of those higher faculties which can best exert their powers only when duly housed and fitly served, the requisite training must, in both cases, begin in childhood.

There can be no doubt that at least the elements of personal and public hygiene should have a recognised place amongst the subjects of every school curriculum. It is not desirable to produce a generation of juvenile sanitary prigs or pedants; but, while stopping far short of such a result, much might be done in this way towards ensuring that the men and women of the future shall not exhibit that crass ignorance of and indifference to the very essentials of sanitation which are now so lamentably common. Teachers would find little difficulty in following out some such suggestions as those which were put before the American Public Health Association, in November of last year, and in impressing on their pupils that the diseases which kill them in greatest numbers have been classed by wise men as *filth diseases*; "that small-pox is easily preventible by vaccination; that scarlet fever, diphtheria, typhoid fever, yellow fever, cholera, and even pulmonary consumption, are preventible by cleanliness and correct habits of life"; that such diseases, in short, are not the inalienable birthright of mortality, but that they are the result of persistent violations of the laws of health; that there are houses and whole groups of houses in the country as well as in the town

"where slovenliness and filth so much abound that sickness in some form is present at all seasons of the year"; and that filth not only infects the atmosphere in the immediate neighbourhood of its accumulation, but that it can and does transmit its germs afar. In order the more surely to fix the memory of these truths upon the mind, the teacher should "employ sketches on the black-board to illustrate dangerous proximity of the family residence, the stable and barn-yard, the pig-stye, the duck-pond, the privy vault, and the kitchen sink-drain, to the water supply in the well or cistern; to show how the milk supply may become contaminated . . . . . and dangerous"; the principles to be followed in building houses, workshops, and factories so that they may be healthy to live in and occupy; and how necessary to the maintenance of good health are fresh air, pure water, and plenty of well-cooked wholesome food. It would also be easy to indicate, by simple appropriate diagrams, the system of sewerage usually adopted in towns; the importance of traps and proper disconnections; and the danger to health from imperfect ventilation, etc., etc. Novel instruction in matters dealing so directly and obviously with their own every day life would come to all school children as a pleasant interlude in their ordinary routine of work. They would thus imbibe, without effort and almost unconsciously, a knowledge of those broad and fundamental principles which it would be almost impossible for them to forget, and which, however much the mere *fashion* of sanitation may change from time to time, it would never be necessary for them to unlearn. To the many boys who evince a natural fondness for mechanical and constructive occupations, the practical character of such instruction would particularly commend it; and it would appeal to that natural preference for the concrete exhibited by nearly all of them. Similar knowledge is not less requisite for girls; and an acquirement of clear ideas on the principles of sanitation as applied to their own persons, to general household arrangements, to the care and treatment of children and of the sick, to the hygiene of the bedroom and of the nursery, would be as interesting in their earlier years as it would prove valuable to them in the capacity of mother, wife, or nurse. There is no need to overload the mental digestion of the child, already hardly taxed, with knowledge of this kind; what is wanted is breadth and quality of foundation rather than bulk and heterogeneity of superstructure. Much of it might be learnt without any approach to intellectual strain, by means of simple illustrations such as Dr. Reeves advises, and the "object lessons" which the phenomena of modern life constantly display. Once started on this path of knowledge, the growing mind would be continually discovering fresh occasions for increasing its store of information and exercising its powers of observation, until these processes became more or less automatic, but none the less practically useful to their owner and his race. It is not necessary to raise the question as to whether instruction in the rudiments of sanitary science might not advantageously supplant other branches of knowledge whose acquirement may be a useful mental exercise, but which have, for the vast majority of their students, no practical application whatsoever. At any rate it must be admitted that if men and women would give to the study of their own bodies, of their surroundings, of the management and maintenance of their own health and vigour, a care and interest equal to that which so many bestow upon such matters in relation to their dogs and horses, their poultry, and their household pets, they would gain immensely; gain not merely by a vast increase in the health and happiness of themselves and of their households, but gain the new pleasure of some intelligent appreciation of the construction and methods of the human body—that wonderful vital machinery which is too often treated as though it were made of boiler-iron and endowed with perpetual motion.

THE INTERNATIONAL MEDICAL CONGRESS.

Opening of the Congress.

The International Congress at Copenhagen bears every prospect of success. An essential element in the success of any great gathering must always be found in the number of members who attend it, and even before the opening of the session the numbers registered have far exceeded the expectations of the Reception Committee. The English contingent is fairly representative, including nearly all the leaders of the well-remembered Congress of 1881. The various routes indicated for the guidance of the medical pilgrims appear to have been all employed, although the shortest of them has naturally conveyed by far the greater number. A large party, pioneered by Sir W. MacCormac, and including Sir W. Gull, Sir Risdon Bennett, and many others, travelling *viâ* Flushing, Hamburg, and Korsoer, crossed from Kiel on Saturday.

Most of the members of the party will bear a lively recollection of this short but singularly uncomfortable voyage. Crowded together on a small steamer, which would afford only moderate accommodation for about fifty persons, were more than two hundred and fifty human beings, male and female, the former mostly medical. A persistent head wind and consequent chopping sea, the impossibility of obtaining sufficient food or even sufficient space to sit down, produced a state of things, after a few hours' lively tossing, neither pleasant to recollect nor edifying to record. Well-known faces from America, Berlin, Vienna, Paris, and London became, from the one all-conquering cause of sea-sickness, tinged with hues and altered by distortions neither picturesque nor becoming. More than one authority on gastric nervous disturbances might be seen obviously the subject of those remarkable phenomena so easy to speculate about, and so difficult to deal with; and many will doubtless feel that nothing less than a crown of martyrdom is due to them for such sacrifices in the cause of the medical sciences.

Arrived at Copenhagen, evidences are afforded on every hand of the determination on the part of the city to render the reception of its guests a worthy one in every sense. The demand for accommodation having become so far greater than was anticipated, the resources of the city have been taxed somewhat severely, but the courtesy of all persons concerned has withstood the strain which such a demand involves. The general meetings, which are held in the Palais de l'Industrie, have been fitly inaugurated by a general recep-

tion, in the presence of the Royal Families of Denmark and Greece, at which an address of welcome was delivered by the President, Professor Panum. Referring in most eulogistic terms to the brilliant success of the London Congress, he claimed for the Executive of the present meeting the credit of having attempted, however imperfectly, to reproduce, according to their means, the best features of the great gathering of 1881. He was followed by Sir James Paget, who, in a few sentences framed in his own inimitable style, made a graceful reference to the lasting debt which England owes to the Royal Family of Denmark for its gift of the Princess of whom all Englishmen are proud. In wishing success to the present Congress he made allusions to the advantage which had accrued to the study of medical science in England from the international gathering over which he had presided. Although "insular in position," we were thereby led to become "cosmopolitan in mind." The problems of science cannot be settled by this or that nation alone, and this international comparison of theory and practice forms the safest means of arriving at the truth.

As the representative of Germany, Professor Virchow next delivered a characteristic speech, especially bearing upon the subject of experimental research, and his remarks in advocacy of the principle involved were received with general applause. He congratulated Denmark on its freedom from legislative interference in this respect, and concluded with a comparison of the old system, founded on the Hippocratic teachings, with the essentially modern views in vogue in Northern Europe at the present day. A short speech from Professor Pasteur, who was received with much enthusiasm, was followed by a general statement by Dr. C. Lange, the Secretary-General. The President then delivered his inaugural address.

The French language was used by the Danish speakers, and unfortunately the difficulties presented thereby were added to by the bad acoustic properties of the hall, which, although most tastefully decorated for the occasion, did not permit of all of the large audience, numbering over one thousand, obtaining either a clear view or a distinct hearing of the several speakers. At the close of the proceedings a general conversation took place, all the leaders of the various nationalities being presented to the King of Denmark and his son, the King of Greece, who passed from one to another in the crowd with evident enjoyment of the scene. Three faces were conspicuously absent from the circle of medical celebrities, viz., those of Lister, of Charcot, and of Pantaleone. The first of these, however, will not be absent from the whole of the meeting.

Of the various nations present, the German, French, and Scandinavian are far more largely represented than the English and Italian; few nations, however, are represented by so many acknowledged leaders as our own. With Paget, Gull, Spencer Wells, Risdon Bennett, Marshall, and Acland for our sponsors, we may safely challenge comparison in this respect with any of the nations present.

The sectional meetings are held in three different buildings, somewhat inconveniently distant one from another, and the programmes of each day are to be duly announced. At present, however, the valuable volume of "Abstracts," so useful to the members of the last Congress, has not made its appearance; it is, however, promised. The Committee of the Congress have arranged a series of entertainments, including a general excursion to Elsinore, which will doubtless attract large numbers of members. The meeting will be wound up with a *fête d'adieux* on Saturday, the 16th.

First General Meeting.

The first General Meeting of the Congress was held in the large hall of the University, which was filled to overflowing. Professor Pasteur, who was most warmly received, delivered an address on the progress of our knowledge of the part played in the causation and spread of contagious diseases in men and animals, by the various microbes, with especial references to his recent researches on hydrophobia. The virus of the latter disease is always developed in the nervous tissues and in the salivary glands; the incubation may be very long and is always variable. Injection of virus into the membranes of the medulla by means of trephining invariably produced hydrophobia. The disease is never spontaneous but is always derived from the original disease of the dog. The symptoms depend essentially upon the part of the nervous system in which the virus is situated, and their virulence is in direct proportion to the length of the incubation, while the latter in itself depends upon the quantity of poison present. He related particulars of several experiments in illustration of this. For all these investigations the necessity of trephining in order to obtain accuracy must be insisted on. By injections made with virus derived from animals successively inoculated from one another, he found that the period of incubation became regularly shorter with each successive attenuation of the virus. The whole process of inoculating his rabbits was accomplished in nine minutes and a half. A further series of experiments made upon monkeys gave different results, the period of incubation becoming longer instead of shorter. Most of the inoculations were made from a rabbit which died after an incubation of fourteen weeks. The artificial cultivation of the virus is still unaccomplished.

Pathological Section.

In the Pathological Section, Professor Virchow was unanimously called to the chair, and the business opened at once with a paper by Professor Weigert, of Leipzig, on Coagulation Necrosis. His views upon the subject have already been made known, his chief contention being that certain forms of necrosis in internal organs are preceded by and are directly due to an active process of coagulation. The parts especially liable to this form of necrosis are those in which a very free circulation of coagulable material can take place, it being the epithelial elements especially which are the first to suffer. The fact of certain cells losing their nuclei does not permit at present of precise explanation. Professor Virchow, whose views upon the subject are diametrically opposed to those of Professor Weigert, entered at some length into the pathology of necrosis, which he considers to be essentially due in the first instance to loss of fluid. The presence of fluid in animal tissues is a vital condition, and its loss is a feature of partial tissue death, both in the vegetable and in the animal kingdom. He would prefer to regard the process as one of inspissation of the tissues rather than look to any active process of coagulation.

A paper interesting to the ophthalmologist as well as to the general pathologist, was read by Dr. Salomonsen, on the Active Elements in Jequirity Infusions, which he believes to consist essentially in an active principle, jequiritine, and not in the presence of specific bacteria. Although the latter were always present in fatal cases, it was clearly proved that, when unaccompanied by jequiritine, they showed no specific action whatever. The injection of carefully sterilised jequirity infusion, however, was quite as active a poison as that prepared in the ordinary way, and

contained abundance of micrococci. A further series of experiments described by M. Cornil, consisting of filtration of the infusion through porcelain, had been successful in separating the bacilli from the fluid containing them, but both the precipitate and the filtrate still possessed active poisonous properties. The bacilli retained these properties at a temperature of 150°. His views upon the disease were in opposition to those of others who deny the activity of a special bacillus of jequirity. Dr. Salomonsen in reply was inclined to explain M. Cornil's results as due to simple septicæmia.

REVIEWS AND NOTICES OF BOOKS.

Manual of Pathological Anatomy; by Cornil and Ranvier. Second edition, re-edited and enlarged. Translated, with the approval of the authors, by A. M. Hart. Volume II., Part I. — In this the first part of the second volume are some fine specimens of the pure abstraction or sweeping proposition, such as (v. p. 7), "the pathological anatomy of the lung is reduced essentially to that of the pulmonary alveolus." This seems very much like saying that the world is an epitome of the universe. Another similar proposition is to be found at page 131, "it is a general law that the tubercle always causes inflammation round itself, which varies according to the organ affected, pursues a special course and tends to end in a caseous condition." This appears to be a roundabout way of saying that tubercle is the cause of its own existence, progress and death, and that all tubercles are as like as so many peas. We do not care much for such abstract propositions, for they may be made to mean anything or nothing. Now, as compared with the edition of 1869, the main feature of this volume is the increase in the amount of space devoted to disease of the lungs. The authors have much enlarged their disquisition on pulmonary tubercle, they have renewed with increased force their attacks on the dualism of phthisis, and show themselves firmer partisans than ever of the unitary doctrine. We do not propose to enter into any discussion as to the relative merits of either of these views, but will just mention the fact that the adherents of unity are divided among themselves as to what they exactly understand by this comprehensive abstraction. We are quite at one with the authors in their views, promulgated first in 1869, as to "tubercular granulations originating in the pulmonary alveoli, occupying the infundibala, and filling a patch of the lung with similar cells." Yet it is unsatisfactory to note further on that they themselves seem somewhat diffident on this point: for until it is proved to the contrary, we shall see no reason why the endothelium of the lung should not be susceptible of the tubercular inflammation. Indeed, we cannot see how it could be otherwise; for whatever theory as to the contagium be adopted, the endothelial lining of the air cells will be one of the first parts of the lung tissue to be attacked. It is because observations are made too late, *i.e.*, too long after the disease has been set up, that this effect has been overlooked: and with regard to the secondary developments from the original focus or foci of infection, we regard them very much in the same light as the secondary developments of a malignant neoplasm; for just as the secondary developments of a malignant neoplasm, say, a carcinoma, vary according to their anatomical position, etc., so does the tissue construction of a tubercle vary according to its position, the time it takes to grow, etc. Now associated with the subject of pulmonary tuberculosis is the question as to the origin of the giant cell. In the former edition the authors expressed a certain irritability against Schüppel whom they almost accused of purloining the results of their labours. In this edition they suppress their resentment and seem to modify their views as to the origin of giant cells. Here they state that "researches made on the origin of giant cells have led to the discovery that these cells may be developed in the interior of blood vessels; either in the midst of a thrombus composed of fibrin and lymph cells, or in the inflamed and granulating internal wall." This is tantamount to asserting that the giant cell is developed either in or from a part of a blood vessel. We are of opinion that we have seen them in situations which would preclude the possibility of supposing that a blood vessel had been their progenitor. During the past few years an absorbing interest has been taken in the relation of micro-organisms to disease, and especially to disease of the lungs. Stately volumes and almost myriads of monographs have been produced in Germany and England on the bacillus tuberculosis. Messrs. Cornil and Ranvier, after reference to the Monas tuberculosum of Klebs and Reinhart and to the Micrococcus of Toussaint, merely remark in their last lines on tubercle that "still more recently Koch, by cultivating fragments of tubercle, has succeeded in isolating microbes which resemble the bacillus of lepra in shape, but are more delicate. He has succeeded in inoculating many animals with tubercle." This is all they have to tell us about the bacillus tuberculosis and we consider that this unfortunate bacillus has been unfairly dealt with in comparison with the micro-organisms infesting the buccal cavity. For not only are three pages devoted to the consideration of the latter, but methods for staining them and their measurements are given. Now, whatever the future of the bacillus tuberculosis may be, we are certainly not at present in a condition to overlook it. The polemical element is mainly comprised in the first chapter, but ulcer of the stomach offers several opportunities for airing improved theories; as we cannot adduce any probable cause for the origin of this frequently disastrous disease, we will simply point out that in the present state of our knowledge the speculations are purely problematical. The same viscus is stated to be affected with carcinoma in the following order of frequency: encephaloid, scirrhus, colloid, malanotic. Other authorities put scirrhus at the head, and this certainly accords with our own experience. It is obvious that such a statement is misleading, and if the frequency of encephaloid cancer of the stomach in France be greater than elsewhere, some intimation to this effect should be appended. If our remarks seem severe they may be discounted by the fact that they have been made through the medium of a translation, which, judging by our knowledge of the French edition of 1869, seems somewhat to have lost the vitality of the original. We have also noticed a few specimens of continental English, such as "on dividing the lungs" for on section of the lung; "dissociate with needles" for teasing out, etc. The engravings are vastly more numerous than in the first edition (in the proportion of 5–2), but we regret that we cannot praise them highly, as many are so wanting in definition as to seem imprinted from worn-out plates.

An Introduction to Pathology and Morbid Anatomy; by T. H. Green, M.D. Sixth Edition; illustrated by one hundred and fifty engravings. London.—The sixth edition of this very popular manual retains all its old characteristics, and is much enlarged by the addition of a considerable quantity of new matter. The author, by whose name this "Introduction to Pathology and Morbid Anatomy" is known, has associated with himself in the production of this last edition, a surgical colleague, Mr. Stanley Boyd. To the latter are entirely due the chapters on tumours, regeneration, septicæmia, and the vegetable parasites. We think that this association is always, in pathology, a step in the right direction, for however able a single writer may be, he is bound to give a more or less partial view of his subject, his views leaning unconsciously towards the side of his special inclinations. Hence a combination pathology issuing from the pens of at least two authors will be found more useful to the student who is approaching his examination, than most works which are the product of a single hand. This edition is illustrated by one hundred and fifty wood engravings, a very fair quantity as books go, but none too many, at least, in our opinion, for we think that a great deal more can be imparted through the medium of well-executed illustrations, than by the most graphic word-descriptions. The necessity for the latter cannot be abolished, but might be made subordinate to the former. So much is known about this work from its

previous editions, that it would be idle to re-discuss the unaltered portions, while with regard to the new and revised chapters, we are able to say that they are quite up to the standard of their predecessors. The chapter on vegetable parasites furnishes a well-digested epitome of the subject of micro-organisms, and, like all the recently revised portions, will be found to contain quite sufficient for ordinary purposes. We can recommend this new edition as being a work containing a large amount of well-put information brought up to examination date.

Lehrbuch der Auscultation und Percussion; von Dr. C. Gerhardt. Fourth Edition. Tübingen: Laupp'sche Buchhandlung, 1884.—The appearance of a new edition, "increased and improved," of a work so long and favourably known as the above, may safely be interpreted as a proof that its popularity is as great as ever, and that the publication of numerous lesser writings on the same subject have only served as a stimulus to the author, and have not as yet in any way supplanted him as an acknowledged authority on the subject on which he writes. Dr. Gerhardt's book has indeed supplied not only the text, but also much of the material for more than one of the smaller handbooks on auscultation that have from time to time made their appearance for the benefit or otherwise of students and practitioners. It has often been questioned whether so essentially practical a subject can be profitably studied elsewhere than at the bedside, and many very skilled physicians have expressed sentiments nearly approaching to contempt at the laborious efforts sometimes displayed by teachers and students to give a scientific explanation of those sounds and vibrations which assist us in discovering morbid conditions within the chest. An approximate understanding, however, of the causation of these same sounds and vibrations heard and felt in the healthy state of the chest, is essential to the proper comprehension of the morbid modifications of them met with in the course of disease. It is precisely this essential starting-point, however, about which the chief discussions and differences of opinion have taken place. Whether the ordinary vesicular murmur of quiet respiration is itself produced within the vesicles, or whether it is the tracheal or bronchial sound simply modified by transmission through a bad conductor must still remain in the category of things not proven. In Dr. Gerhardt's work will be found a full discussion of the various theories that have been promulgated upon this point, and the reader will, no doubt, be struck with the fact that the author's own views are in close accord with those of Laennec as published in his original treatise in 1819. Whether from a theoretical or from a practical standpoint, the book may be accepted as a thoroughly trustworthy guide, containing everything that a well qualified physician requires to know on the subject, and at the same time presenting, in an attractive form, those debatable matters upon which he may speculate with advantage in his leisure hours.

Discussion on Albuminuria at the Glasgow Pathological and Clinical Society. Glasgow: A. Macdougall, 1884.—This is a reprint from the *Glasgow Medical Journal* of the papers read during the discussion on this subject which lasted over four meetings of the Society. To attempt to analyse all the papers would require a greater amount of space than is at our disposal; we must therefore content ourselves with the briefest allusion to one or two of them. Looking at the subject from a clinical stand-point, Dr. William Roberts expressed his belief in a physiological albuminuria, the characters of which he defined as follows: the albumen is generally small in quantity, its occurrence is intermittent, and it is generally absent in the morning. This albuminuria is transitory, and the urine in other respects is normal in character; there are no other signs of Bright's disease, and the general health is often perfect. The complaint is most often seen in growing boys and girls, persons about the age of puberty, and young adults under thirty. Dr. Gairdner, in the course of his remarks, drew a parallel between albuminuria and pulmonary catarrh, the catarrh in the one case and the transudation in the other being the starting point of numerous lesions, the initiatory process upon which a great number of organic changes may depend, according to the proclivities of the individual, and a variety of other circumstances. The discussion was opened in a speech of considerable ability by Dr. Newman, and the pathological, clinical, and chemical aspects of the subject all received their share of attention.

The Medico-legal Journal, No. 4. Published by the Medico-legal Journal Association, New York.—We are certainly behind our American cousins in matters medico-legal, for there are societies devoted solely to the study of this subject, not only in New York, but in Philadelphia and in Massachusetts, and the New York Society have lately undertaken the publication of a journal, of which a number is now before us. The first paper is on a case of poisoning by arseniate of soda, a rare event in itself, and made additionally interesting by the utter absence of the ordinary symptoms of an irritant poison, the chief phenomena being stupor passing into coma and hurried respiration. This is followed by an important paper on the sanitary building laws in New York, by a sanitary engineer, and by a paper on concussion of the spine in railway injuries, by Dr. J. G. Johnson. He evidently does not believe in the railway spine, and has the greatest contempt for the personal damage doctor, and the personal damage lawyer, to whom he alludes in no very complimentary terms. The reports of the various meetings of the Medico-legal Society take up a good deal of space, and show that there are plenty of important questions ready for discussion at such a society. We consider that the *Medico-legal Journal* constitutes a very valuable addition to periodical medical literature.

ABSTRACTS AND EXTRACTS.

MEDICINE.

Significance of Jaundice in Diagnosis.—Under this title Dr. Quine read a paper at the Chicago Medical Society, of which the *Boston Medical Journal*, July 3, publishes the following synopsis: "After alluding to jaundice of obstructive and non-obstructive origin, and to the various theories that have been advanced in explanation of the latter, the essayist succinctly pointed out that the attendant symptoms were mostly due to the presence of colourless bile-acids, the bile-pigment being harmless. Cerebral disturbance due to hepatic derangement, and associated with cholæmia is not caused by the presence of normal bile, but by a different though unexplained species of toxæmia. Although slight jaundice is often overlooked, and in some instances cannot be distinguished from cachexiæ except by the discovery of bile-acids in the urine, the diagnosis usually relates to the discovery of the cause and not to the mere recognition of the effects. The following points complete a summary of the paper: (1) Jaundice occurring suddenly, in apparent health, and painlessly, is usually of emotional origin, and transitory. (2) When it depends on disease or injury of the brain, acute atrophy of the liver, snake-poisoning, or infectious fever, it always is associated with mental disturbance. (3) If it be attended with fever and well marked, it is secondary to inflammation of the biliary passages, pneumonia, toxæmia, or infective inflammation of the portal vein. (4) If it occur suddenly, and is preceded by paroxysmal pain and vomiting, it is caused nine times out of ten by biliary calculi. (5) If it is preceded by typical symptoms of gastro-duodenitis it is obviously of catarrhal origin. (6) Impassable obstruction of the common duct is shown by great intensity of jaundice, clay-coloured stools, and in recent cases by distension of the gall bladder. (7) Jaundice caused by sudden obstruction of the biliary passages is always associated with paroxysmal pain and nausea, but there is no means of ascertaining the nature of the obstructing body except its discovery in the stools. (8) In the rare cases of sudden obstruction by cancerous, hydatid, and aneurysmal tumours,

there is almost always a history of impaired health, enlargement and deformity of the liver, ascites, &c., which, aided by the revelations of physical exploration, will lead to correct differentiation. (9) Sudden return to normal coloration of the fæces confirms the diagnosis of obstruction. (10) Occlusion of the cystic duct may be attended with as much pain, nausea and distension of the gall-bladder as occlusion of the common duct, but there is no jaundice. In occlusion of the hepatic duct the same symptoms are present, including jaundice, and excluding distension of the gall-bladder. It is often impossible to distinguish between occlusion of the hepatic and of the common duct. The former is rare because the duct increases in size from above downwards. (11) If jaundice persist after the symptoms of biliary colic or catarrhal inflammation have a month since disappeared, or if jaundice have disappeared after a biliary colic, to return slowly and painlessly, it may be assumed that stricture of the duct has resulted from inflammatory thickening, adhesion of the walls, or cicatrisation of an ulcer. (12) A history of repeated attacks points to the probability of gall-stones. (13) If jaundice comes on slowly without antecedent colic or catarrh, and without attendant evidence of impaired health or portal obstruction, it is probably caused either by pressure upon the duct, or by the growth of a tumour within its walls. The pressing body, when large enough, may be readily appreciated, as in the case of pregnancy, ovarian tumour, aneurysm, distended colon, &c., but when it is small, or constituted by enlargement of lymphatics in the fissure of the liver, it is apt to escape detection. (14) Slight but persistent jaundice may be due to incomplete occlusion of the common duct, or to complete occlusion of a branch of the hepatic, but usually it is found associated with either valvular disease of the heart, some disease of the lungs which obstructs circulation, or cirrhosis of the liver. (15) If ascites be associated with it, the disease is either cirrhosis or cancer of the liver. If the liver be abnormally small the disease is cirrhosis; if it be large the disease is either hypertrophic cirrhosis or cancer. Differentiation between the two is seldom attended with difficulty. (16) Absence of jaundice does not imply absence of hepatic disease, since the liver may be destroyed by disease or extirpated by operation without jaundice ensuing. (17) It is not a prominent symptom of hepatitis if catarrhal inflammation of biliary passages be rigidly excluded. It is not characteristic of hepatic abscess where, at most, mere muddiness of the complexion is usually seen. These affections are rare in temperate latitudes, and when encountered are generally found to be secondary to direct injury of the liver, or to infectious inflammation of the portal vein. It is not a symptom of waxy or fatty liver, or of hydatids, excepting as an extraordinary complication."

Acute General Endarteritis.—Under this heading Drs. Scot-Skirving and E. J. Jenkins record a case in the *Australian Medical Gazette*. Their patient was a man aged 52, who, when he first came under observation, had some fever, with paresis of right side and some difficulty in speech. The first sound of the heart was somewhat weak, otherwise there were no definite signs of organic disease about him, excepting a chancre on the penis and an ulcerated sore throat. After admission his temperature oscillated for some ten days and then became normal. The paralytic symptoms almost disappeared, including some hyperæsthesia, which had been noticed, the chancre was getting well, and for five days his temperature was normal. He then had a return of the fever with some diarrhœa, and died in four days' time without any definite signs. The diagnosis was uncertain, resting between typhoid fever and deep-seated syphilitic mischief. At the *post-mortem*, scattered patches of inflammation were found throughout the intestines, the mucous membrane being in many places eroded. The other viscera presented no changes of importance, with the exception of the aorta and its branches. Here changes were found commencing just above the sigmoid cusps, and extending upwards as far as the bifurcation of the common carotid, and downwards to the femoral artery. The lesions consisted firstly in an intense arteritis all over this area, but most marked in the transverse part of the arch and upper part of the thoracic aorta, the inner surface being of a deep blood-red colour. Next, there were many atheromatous ulcers in various stages, and lastly, there were a considerable number of calcareous plates. Miliary abscesses were found in the kidneys, probably of embolic origin, and the authors suggest that probably emboli had been the cause of the paralysis and aphasia noted amongst the early symptoms. They looked upon the arteritis as probably syphilitic.

Tricuspid Stenosis.—M. Chauffard (*Revue de Médecine*, July) concludes the account of a case of this affection, with some general remarks on the physical signs and nature of this condition. At the lower end of the sternum, or a little to the left of this, opposite the fifth left costal cartilage, there is heard a harsh, prolonged *souffle*, both præsystolic and systolic, quite different from the soft and deep murmur of tricuspid insufficiency. The murmur has very little tendency to be propagated in any direction, and does not reach the apex of the heart. Amongst the other signs may be mentioned hypertrophy of the right auricle, so that this can be recognised to the right of the sternum. There is extreme venous congestion, both of the viscera and of the extremities, and yet there is no venous pulse in the jugulars. This negative sign is one to which great importance ought to be attached in a diagnostic point of view. Hitherto this lesion has only been found in adults, mostly women, who have been subject to repeated attacks of rheumatism, and who are already affected with valvular disease of the heart, especially of the mitral valve. In fact, it would appear that the mitral stenosis sets up a chronic endocarditis, slowly progressive, which ultimately leads to tricuspid endocarditis and stenosis.

Diagnosis from Hot Urine.—Dr. Betz, in his *Memorabilien*, 1884, No. 2, calls attention to the fact that in certain conditions the urine when passed is far hotter than in the normal state. Of course, in the normal state it derives all its heat from the bladder; but when its temperature is much raised, and is unaccompanied by any inflammation of the bladder, this will be found to be due to inflammatory action going on either in the pelvic organs or in the peritonæum lining the pelvis, or in the intestinal convolutions lying in its cavity. When the patient, therefore, complains of hot urine, this condition of the pelvis must be borne in mind; and it is not rare for this symptom to be the first indication of the existence of these inflammatory processes.

SURGERY.

Suture of the Median Nerve.—At the meeting of the Academy of Science on the 30th June (*Union Médicale*, July 5th) Prof. Tillaux read a remarkable paper upon two cases of secondary suture of the median nerve, with rapid re-establishment of innervation in the paralysed parts. By "secondary" suture, he observes, we understand the suture which is only applied at a more or less long period after the division of the nerve, when the two ends have become separately cicatrised. (1) Caroline ——, 23 years of age, while cleaning a window (2nd November, 1883), cut her right wrist so deeply as to completely divide the median nerve. Primary suture of the nerve was not practised, and after the healing of the wound all the parts supplied by the median remained completely paralysed. Incapable of working for her living, the girl, on the 4th March (four months after the accident), was admitted to the Beaujon Hospital, and an examination being made of the wrist a rectilinear transverse cicatrix, painful on pressure, was observed. At this spot could be felt a tolerably distinct prominence, which was supposed to be formed by the central end of the divided nerve. The whole of the parts supplied by the median were completely insensible to contact, to pain, or to temperature, the patient not feeling the slightest sensation on plunging the ends of the paralysed fingers into boiling water or in picking up burning coals. The muscles of the thenar eminence were atrophied, and the opposing power of the thumb was lost. The paralysed parts were colder than those of the opposite side, and the skin had assumed a slightly violaceous colour. "The actual state of our knowledge of the physiology of the

nervous system was not of a nature to encourage me to intervene by an operation; and in a work which I published in 1866, basing myself on the results furnished by experiments on animals, I regarded as very doubtful the re-establishment of the nervous current by the peripheric end of a nerve that had been divided. Failure seemed then almost certain; but urgently solicited every day by the patient, and convinced that, owing to the remarkable progress of surgery at the present time, I should not cause her to run any danger, or in case of failure aggravate her condition, I decided to act, and on the 10th March performed the following operation:—The patient being placed under chloroform, the two ends of the nerve were exposed by a vertical incision, and were found separated from each other by about a centimetre—the central end being enlarged and that of the periphery tapered off. The extremities of both of these were excised by scissors, so as to get fresh surfaces of the same diameter; and, instead of employing forceps, which might have contused the nerve, a very fine needle, armed with a *crin de Florence*, was passed from one end to the other. This was gently tightened until perfect juxtaposition of the two surfaces of the section was secured, carefully preventing the neurilemma becoming folded in towards the axis of the nerve, which might have impeded reunion. The thread was tied, cut close to the knot, and left in the wound. The external wound was drained, united by silver wires, and covered with a Lister dressing—the most minute precautions of the antiseptic method having been observed. The hand was maintained motionless in a state of flexion during a whole week, without the dressing having been touched. On the eighth day union was complete. By the third day the index and middle fingers felt the contact of a pin carried gently along their surface; and the sensibility continued to increase from day to day; so that, on the 1st of May, six weeks after the operation, the patient left the hospital, the sensibility and motion having returned to such a point that she could work at the needle or crochet, and was in a condition to resume her occupation. (2) Exceptional cases are rarely solitary, and in the hospital there was a woman, aged 28, suffering from an affection of the abdomen, who having, in 1870, fallen upon a bottle, cut her wrist, with the effect of producing the same paralytic symptoms as those related above. Witnessing the success of the operation in that case, she requested that it might be performed in her own; and her wish was complied with, although some hesitation was naturally felt, so long a period as fourteen years having elapsed since the accident. The result of the operation was completely successful. It is certain that these cases are in contradiction with the actual conclusions of physiology and histology. In what way did innervation become re-established? It would seem natural to suppose that it was through the immediate approach and rapid junction of the central end of the nerve with the peripheral end, and I cannot conceive, until better informed, how it can be otherwise. But Professor Vulpian declares this to be impossible, inasmuch as the peripheric end of the nerve, totally degenerated, had lost all property of transmission, as is invariably demonstrated by experiments on animals. Professor Ranvier, who consented to examine the portions of the nerve cut off for the purpose of vivification, declares also that this explanation is impossible, since the nervous tubules, the agents of transmission, have disappeared in the peripheric end, leaving nothing to be found but fibrous tissue. I willingly bow to such authorities; but I must add that, whatever may be the theory, it is undeniable that my two patients have recovered their sensibility. It is undeniable, because these cases have been publicly observed in a hospital service by a great number of competent persons; and because they have been observed and verified, notwithstanding a strong prejudice both on my own part and that of my pupils. We cannot, then, have deceived ourselves, or been deceived as to the reality of the fact in itself. Analogous cases have also been referred to by Wessentein, in the *Centralblatt für Chirurgie*, 1884, No. 19. This explanation lies with the future."

Instruments for Occluding a Ureter for Diagnostic Purposes.—Dr. Silbermann, of Breslau, has devised an instrument, consisting of a catheter with a fenestra near the end, on the right or left side according to whether the right or left ureter is to be occluded. At the fenestra is a rubber balloon, covered during the introduction of the instrument by a slide, and when in position, distended by quicksilver introduced through the catheter by means of a syringe. Thus a heavy artificial tumour, as large as a small egg, is made to shut off all the urine coming from one kidney by pressure upon the ureter where it enters (? as it passes through the wall of) the bladder. Experiments made upon living dogs, which were afterwards killed, showed that the ureter was thus completely occluded. In the human subject, the quantity of urine secreted during a given time was measured, and was found when the instrument was not used to be twice as great as when it was used. Dr. W. M. Polk has, with a similar object, been experimenting with a double sigmoid catheter for introduction into the bladder, between which and a bulbous-ended rod passed into the rectum or vagina, the ureter could be closed so perfectly, that in the cadaver it had been dilated to five or six times its normal diameter with injections of water without overcoming the obstruction. The distended ureter could be distinctly felt through the rectum above the point of compression. The artificial formation of a temporary vesico-vaginal fistula, and the making of an opening into the male bladder of sufficient size to admit the finger, with the object of directly catheterising the ureters, have been advocated as justifiable proceedures in order to the formation of a positive diagnosis before undertaking so severe an operation as extirpation of a kidney in certain cases.—*New York Medical Journal*, April 19th, 1884.

Treatment of Acute Abscess.—Prof. Stephen Smith, of the University of New York, has published in the *Æsculapian* his treatment of acute abscess, for which he claims, in the case reported, a saving of at least a month to the patient. He advises a similar proceedure in carbuncle and furuncle, and wherever there is necrosed tissue. The method is as follows:—(1) Wash the skin of the part with a brush, and soap and water, and then douche it with a sublimate solution of 1 to 500. (2) Open the abscess with a knife that has been treated with carbolic acid (1 to 30), the aperture being only large enough to admit the nozzle of a Davidson's syringe. (3) Force out the pus by pressure, and when it ceases to flow, introduce the nozzle of the syringe, well disinfected, the edges of the wound being held firmly around it, and distend the cavity to its fullest capacity with sublimate solution (1 to 5,000). (4) Force out the injected fluid by pressure. (5) Repeat this injection as often as may be necessary, until the water flows away quite undiscoloured. (6) Lay the cavity open to its full extent, keeping up irrigation with sublimate solution (1 to 2,000). (7) Cut away all shreds of tissue, and scrape off gently any granulations that may be upon the living surface of the abscess by means of a curette, until a perfectly clean surface is everywhere apparent. (8) Ligature any small vessels that may be bleeding with carbolized ligatures, thorough irrigation being kept up with the sublimate throughout. (9) Close the wound with an interrupted suture, except at the most dependent point, where a small opening must be left for drainage. (10) Over the drainage-opening place a disinfected sponge to absorb discharge. (11) Sprinkle the external wound and adjacent skin with iodoform, and cover the wound well with folds of gauze, between which iodoform is well sprinkled. Over the gauze apply a dressing of borated cotton, and if in a limb, secure all by a light plaster of Paris bandage. In this man with an acute abscess of the thigh, holding a pint, temperature (103° F.) and fever were high before the operation, returning to the normal after its execution, all pain subsiding and the appetite and sleep being good.

External Œsophagotomy.—Dr. Knie read at the Moscow Medical Society an account of a case of a robust man who, while eating hastily, swallowed a solid body, which became arrested opposite the manubrium of the sternum. He saw the patient a week afterwards and found the œsophagus very sensitive to pressure, but without any external swelling. Proceeding to perform œsophagotomy, he found the œsophagus already perforated, and had therefore only to enlarge the aperture. A piece of bone three centimetres in length and two in breadth, was re-

moved, exhibiting four very sharp edges, and the patient did well. This, the writer states, makes the thirty-fifth recorded case of external œsophagotomy for the removal of foreign bodies, and of these twenty-nine recovered and six died.—*Centralblatt für Chirurgie*, May 31st.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE XIII.

Alcoholic Liquids.

We pass to the consideration of liquids worshipped by more than one ancient gifted race, in picturesque symbol as something precious and divine, but to which a modern sect would apply such epithets as "poisons not foods! essences invented by an evil principle! a foul fiend's waters!" The medical profession as a whole, while inculcating temperance, has never adopted the extremes of either worshippers or revilers. We will here take a common sense view of the matter, and until an inquisitive pathology has afforded us some proof of the injurious effects of the legitimate daily and reasonable social use of spirits and wine, we shall continue to believe that our excretory organs are not so delicate as to be in any way damaged by separating and transforming small quantities of alcohol. This also is an opinion the more likely to be adopted by the majority because there is no really good temperance drink; neither the sweet syrups replacing wine at the recent vegetarian dinner, nor that drink which attained such popularity under the name of zocdone, can compare as regards pleasurable excitement of the palate, or as a stimulator of the digestion with good beer, or light dry wine. Few people drink wine for the sake of its alcoholic content; so long as it is agreeable, of fine flavour, and is made of pure materials, they would prefer the percentage of alcohol to be kept as low as practicable, and, indeed, generally good sound pure wines of feeble alcoholic strength are to be recommended and encouraged.

Of wines, the Exhibition has a goodly show. Messrs. F. T. Denyer and Co. exhibit a great variety; their champagnes are specially to be commended; a sample of 1874 vintage we have carefully examined and found perfect in bouquet and altogether excellent. Their pure "Manzanillar from Sanlucar" is likely to be popular, and to successfully compete with many of the sherries in use. It is a sound wine, containing a little under two per cent. of grape sugar, rather strong in alcoholic content, but of a fine full flavour, and of very moderate acidity.

Mr. W. T. Folks, of Mark Lane, exhibits Lima and Fils' champagne, a wine which, considering its price, is of good quality.

Messrs. MaxGreger exhibit all kinds of Hungarian wines; their Carlowitz, both white and red, we have specially examined—it contains about ten per cent. of alcohol, is very moderately acid, and is absolutely genuine. Carlowitz is a wine which the rather numerous class of persons who are unable to take malt liquors may drink with advantage.

Messrs. Christmas and Co. are endeavouring to develop and improve the trade in British wines; the so-called home-made wines, such as currant, ginger, and the like. There would seem to be no reason that, with careful selection, wines made from materials in our own gardens should not in time rival the products of Australia and the Cape; their chief fault is, as might be expected, excessive sweetness, and facility of decomposition. Messrs. Christmas and Co. have, however, been very successful in overcoming both of these difficulties. Their wines contain but little more sugar than many sherries, are of good flavour, of full alcoholic strength; and generally are very palatable, bright, attractive and good.

Passing from the wines to the spirits, the Dublin Whisky Distillery Company has afforded us the unusual advantage of examining and comparing with a sample of the ordinary retail strength, a considerable quantity of samples of whisky before dilution, and ranging from 1878 to 1881. The changes which spirits generally undergo by keeping, are pretty much the same as in wines; what the chemist would call slow saponifications occur, flavouring ethers are developed at the expense of the alcohol, hence old spirits and old wines are richer in complex ethers, and poorer in alcohols than new spirits or new wines. In whisky recently distilled it is possible to extract some greater or less quantity of fusel oil, whereas in mature whisky, the fusel oil or higher homologues of alcohol are diminished. These remarks are fully borne out by the D. W. D. whisky. The samples submitted are those of a very pure spirit, of fine flavour, and of strengths varying from 7·8 to 15·7 per cent. over proof; these strengths being of course diluted to the ordinary retail strength.

The distinction between Scotch and Irish whisky is simply one of flavour; good Scotch whisky can be distilled in Dublin, Irish whisky in Glasgow, and Messrs. James Saunders and Co., of 15, Charlotte Street, Fitzroy Square, exhibit quite impartially their well known old blended (O.B.) Scotch and Irish whiskies. Our examination proves that they are examples of pure genuine spirits, and to be highly commended.

A sample of the much advertised Glenrosa whisky (Messrs. Merritt and Co.,) is also before us, and those who like a genuine spirit with a highly developed flavour, should try it.

A last word as to the wide-spread belief in the adulteration of spirits. The sale of immature improperly blended spirits not unfrequently produces headache and other evils among the consumers, and they at once rush to the conclusion that something deleterious has been designedly added; but so rare is this the case that out of 2,000 samples analysed annually by the public analysts, in only isolated instances has any adulterant save that of water been discovered, and the addition of fusel oil or acids to whisky is not supported by convictions, the only evidence of its existence being the loose statements of platform speakers, and certain popular journals.

Erratum.—By an oversight in last week's issue, the peculiar dish described at the Chinese dinner at the Health Exhibition, as "Bêche de Mer," is said to be "*Helianthus*" of the naturalist. It should have been "*Holithuria*," which is the generic name of the Sea Slug, or Sea Cucumber, also called "Trepang," species of which are not unknown on our own coasts. "Helianthus" is the sunflower, the seeds of which are sometimes also eaten in the same way as the "Lotus" seeds.

GENERAL CORRESPONDENCE.

REMOVAL OF THE UTERINE APPENDAGES FOR MYOMA.

[To the Editor of the Medical Times.]

Sir,—It is fortunate for my critic, "An Anatomist," that he has concealed his identity under a *nom de plume*, as otherwise his letter would have covered him with ridicule. If he does not know that a tumour ten times the size of one three inches in one diameter by four in another would not form a tumour thirty inches by forty, he needs to go back to school for a training in elementary mathematics.

In answer to my other critic, "F.R.C.S.," I need only say that as I did not publish the case as one of enterotomy for intestinal obstruction, I did not enter into the details of the second abdominal section. I shall do so in the proper place.

May I say further, that if this discussion is to be continued I cannot reply to any further letters till my return from America in October.

I am, &c.,

LAWSON TAIT.

P.S.—I have just had a report on the tumour from Mr. Frederick Eve, in which it is said: "The greatest circumference of the uterus and tumour was 8¼ inches. The anterior wall of the uterus was occupied by an interstitial

fibro-myoma of spherical form, and 2¼ inches in diameter." The statement of "An Anatomist" is therefore as untrue as his idea of globular capacity is defective, and I fear the misstatement was intentionally made for mere purposes of mischief.

L. T.

A SHRUNKEN MYOMA.

[To the Editor of the Medical Times.]

SIR,—I have no personal interest in the questions now pending between Mr. Lawson Tait and his critics; but, in justice to the multiplication table, may I point out that "An Anatomist," in your issue of last week, has scarcely stated his case fairly. Ten oranges, though each were four inches across, could be made to form a mass forty inches in diameter only by placing them side by side in a straight row, in which case, the other diameter of the "body" so constructed would not exceed four inches. Again, if ten oranges, each measuring "three inches in one diameter, and four inches in the other," were combined so as to form "a tumour measuring forty inches by thirty," this "tumour" must be pancake-shaped, and of a thickness almost infinitesimal. And, finally, if ten such oranges were agglomerated into a sphere, the diameter of that sphere would be something less than six inches. In other words, ten cubic inches (which will be admitted to represent a bulk ten times as great as one cubic inch) is not the same thing as ten inches cubed.

I am, Sir, yours faithfully,

ARITHMETIC.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Intermediate Examination in Medicine.—Pass List.—Entire Examination.

First Division.—Sidney Robert Alexander, Guy's Hospital; Kaikhosro Nasarvanji Bahadurji, University College; Wilfred Balgarnie and Edward Henry Biddlecombe, St. Bartholomew's Hospital; John Rose Bradford, B.Sc., University College; William Henry Breffit Brook and Frederick Nathaniel Brown, St. Bartholomew's Hospital; Frédéric François Burghard, Guy's Hospital; John Shaw Willes Chitty, Charing Cross Hospital; James Jackson Clarke, St. Mary's Hospital; William Frederick Clarke, Guy's Hospital; William Barltrop Featherstone, Queen's and Mason Colleges, Birmingham; Thomas Arthur Helme, University of Edinburgh and University College; Thomas William Pelham Lawrence, University College; Arnold Lyndon, St. Bartholomew's Hospital; Henry John Macevoy, B.Sc., St. Thomas's Hospital; Ernest Paul Alphonse Mariette, King's College; George Rowell, Guy's Hospital; John Anderson Smith, St. Bartholomew's Hospital; James Edwin Thompson and William Henry Tomlinson, Owen's College; John Herbert Tonking, St. Thomas's Hospital; Frederick Sherman Toogood, University College; Edmond Fauriel Trevelyan, St. Bartholomew's Hospital; James Wheatley, King's College.

Second Division.—John Wallwork Ashworth, Owen's College; Wilfred Martin Barclay, Bristol Medical School; Robert Alfred Bindley and Henry John Blackler, Guy's Hospital; Henry Claxton Bowman and Walter Henry Brazil, Owen's College; Herbert Henry Brown, University College; Arthur William Burrell, London Hospital; Bernard Castle, Arthur Holdsworth Davis, and Leonard Charles Talbot Dobson, St. Bartholomew's Hospital; William Henry Wilson Elliot, Guy's Hospital; Bryan Furnivall and William Thomas Gardner, St. Bartholomew's Hospital; Arthur Henry Gault, Owen's College; Frederick William Gee, University College; Albert Edward Godfrey, St. Thomas's Hospital; Duncan McBean Greig and Julius Hamel, University College; Philip Henry Hensley, King's College; Sydney Ernest Holder, University College; Walter Ross Jordan, Queen's and Mason Colleges, Birmingham; Otto Jackson Kauffmann, Owen's College; Albert Lindow, King's College; Arthur Pearson Luff, B.Sc., St. Mary's Hospital; Henry Grabham Lys, London Hospital; Robert Lee Moore, Queen's College, Belfast; John Ernest Nevins, Guy's Hospital and Liverpool School of Medicine; Trayton Charles Pagden, St. Bartholomew's Hospital; William Permewan, University College; John Williamson Pugh, London Hospital; William Halse Rivers Rivers, St. Bartholomew's Hospital; Charles Frederick Seville, Owen's College; Hugh Smith, Guy's and London Hospitals; Ernest Solly, St. Thomas's Hospital; Walter George Spencer, St. Bartholomew's Hospital; Charles Edward Sunder, University College; Walter Carless Swayne, Bristol Medical School; Samuel Walton Wheaton, St. Thomas's Hospital; James Atkin Wheeler, Guy's Hospital; Charles Wheeler Forest Young, St. Bartholomew's Hospital.

Exeluding Physiology:—

First Division—Henry Ernest Hill Smith, King's College.

Second Division—Albert Green, Guy's Hospital; William Harry Kelson, London Hospital; Charles Pye Oliver, Charing Cross Hospital; William Newt Risdon, Guy's Hospital; Arthur Hastings Lanfear Stewart, St. Mary's Hospital.

Physiology only:—

First Division—George John Eady and Charles Henry Taylor, King's College; Walter Essex Winter, Middlesex Hospital.

Second Division—Charles Kingsley Ackland, King's College; Reginald Muzio Williams, St. Thomas's Hospital.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 7th inst., viz.:—

Messrs. Harman Visger, L.S.A., Clevedon; H. E. H. Matthews, L.R.C.S. Edin., Longsight, Manchester; H. J. C. Godfrey, L.R.C.P. Edin., Lee Park, S.E.; Henry Waite, L.R.C.P. Edin., Leeds; L. J. Shepherd, L.R.C.P. Edin., Torquay; C. S. Spong, L.S.A., Clapham; A. Y. Reily, L.S.A., South Norwood Hill; W. H. Hodge, Middletou, Tamworth; and C. E. Dumbleton, L.S.A., Tasmania.

The following gentlemen passed on the 8th inst., viz.:—

Messrs. J. H. Greenway, L.S.A., Belvedere, S.E.; W. J. C. Tomalin, L.S.A., Northampton; Frank Hinds, L.S.A., Goudhurst; C. E. Humphreys, L.S.A., Llanfair; C. W. Low, L.R.C.P. Lond., Plumstead; J. S. Robertson, L.S.A., West Kensington Park; S. G. Allen, L.R.C.P. Edin., Maida Vale; T. A. Evans, L.R.C.P. Edin., Clapham; and James Milner, L.R.C.P. Edin., Barnsley.

Three hundred and fifty-two candidates presented for the examinations just completed, as compared with two hundred and seventy at the corresponding period of last year. With this meeting the examinations for the present session were brought to a close.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 7th inst.:

Howard Decimus Buss, 37, South Hill Park, Hampstead; Jno. Walter Carr, 40, Bloomsbury Square; William Joberus, Aldridge, Walsall; William Tratman Wallington, 3, Kimpsford Road, S.E.; Charles Stuart Spong, Clapham, S.W.; Harman Visger, 219, Brompton Road.

The following gentleman also on the same day passed the Primary Professional Examination:—

Jno. Oliver Pemberton, of London Hospital.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—*Double Qualification.*—The following gentlemen passed their first professional examination during the recent sittings of the Examiners:—

Reinhard Johann Reinecke, Cape of Good Hope; John Cram, Dollar; Walter Benjamin Garvin, Colombo; John William Fawcitt, Yorkshire; Herbert Henry Wild, Weston-super-Mare; Edward Kershaw, Yorkshire; Arthur Masy Fraser, Colchester; Alfred Henry Pearson, Ireland; James Samuel Reynolds, Wexford; Digby Francis Baynes Cotes, Wiltshire; Robert Marr, Randalstown; Thomas James Walker, Yorkshire; Abraham Haynes, Cork; Edward Joseph Brady, Westmeath; Andrew Craig Hunter, Glasgow; William James Coppinger, Midleton; John Richard Hinkson, Dublin; Robert Enwraight Lauder, Dublin; Henry Benson Goulding, Dublin; John Sudlow Swindell, Kingston; William Henry Fordham, Fiji; John Joel Mason, Bollington; William McCoull, Ovington; Alan Joseph, Ceylon; Arthur Joe Rollinson, Kirton in Lindsey; Bartholomew O. Regan, County Mayo; Fennell Evans, Cork; Alfred Owen Davies, Barmouth; William Overton, York; William John Evans, County Limerick; John McClymont, Ayr; Edward Johnson Williams, Dublin; Cornelius Joseph O'Donnell, Kilkenny; William Shaw, Plandmagee; Bhou Nath Basw, Bengal; James Butler, Tipperary; Charles Wesley Withinsham, Nantwich; Adolphe Frederick Sedameyer, London; Richard Joseph Tristan, Roscommon; Charles Wicks, Maxwelltown; Karl Randolph Marx, Germany; Edward Ratcliffe Fidler Maso, Derbyshire; Charles Chambers, Wales; James Thomas Moore Giffen, Belfast; William John Robertson Dunn, Liverpool; George Bowar, Macclesfield.

The following gentlemen passed their final examination, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh:—

Edward Muscroft Taylor, Scarborough; Arthur Wyndham Martin, Shropshire; Henry Bennett, Staffordshire; Samuel Alexander McKeague, Ontario; George Alder Blumer, Sunderland; William Edward Sprague, Belleville; James Johnston, Huntly; George Franklin Shiels, San Francisco; Frederick John Clendinnen, Melbourne; Duncan Clark, Argyllshire; William Alexander Warters, Ripon; Edward James Sheppard, Warburton, Sussex; Joseph Henry Zepero, Trinidad; Joseph Gillis Wynne, Armagh; James David Black, Cockburn's Path; Robert Lloyd Legate, Queen's County; Major Henry Court Irving, Allahabad; Alfred Ernest Weighiman, Liverpool; Joseph Fitzgerald, Limerick; Benjamin David Craigie Bell, Shetland; Horace Smith, Cambridge; Johnstone Delavil John Harris, Australia; James Hindle, Accrington; Louis Vallee, Paris; John Paterson, Glasgow; Francis Sidley Edgar, County Kildare; William Bowie Barclay, Kilwinning; James Alexander Hutchinson, Montreal; Oran Merton Belfry, Ontario; William Porteous, Ontario; Robert Ovens, Ontario; James Rose, County Carlow; James Bernard Wall, Shustoke; Charles Edwin Solomon, Penryn, Cornwall; Alexander Stewart Thompson,

London, Canada; Eli Thomas Eade, Kingsville, Canada; Robert John Draper Hall, Poona, India; Samuel Wilbraham Griffith, Pwllheli, N. Wales; Daniel Joseph Patrick MeNabb, Greenock; Patriek Gill Griffith, County Mayo; John Herbert Staey, Norwieh; Riehard Crawshaw Holt, Acerington; William Henry Clark, Aylesbury; Johu William Ridley, Wallsend-on-Tyne; James Wallaee Moore, Coleraine; James Mungle, West Calder; Walter Eyre Lambert, South Carolina; Benjamin George Broek, Caithness; Edward Mortimore Smith, Glouecstershire; Charles Thomas Blaekwell, London; Benjamin Allen Maturin, Lymington, Hants; Henry Aked Pearson, Roehdale; John Frederiek Sturroek, Montrose; William MeDermott, Ballymoney; Samuel Burnside Boyd Keers, Ballymoney; Charles Hawkins Copley Woodhead, Thirsk; Riehard Harrison, Yorkshire; Edward Rateliffe Fidler Mason, Derbyshire; Edward Kershaw, Saddleworth; Robert William Felkin, Beeston.

Royal College of Surgeons, Edinburgh.—During the July sittings of the Examiners, the following gentlemen passed their final examination, and were admitted L.R.C.S.E:—

Samuel Ebenezer Johnson, Newport, Isle of Wight; John Tingle Butterworth, Coventry; Alfred Leaeh, Hants; Edwin Alfred Bennett, Dublin; John Andrew Webb, Leitrim; William Knott, Oldham; James Edwin Cheyne Wilson, Devonport; William Frederick Abbot, County Cork; George Dall Orroek, Edinburgh; Alfred James William Keenan, Melbourne; Alexander Gordon, Dublin; Robert Alexander Lundie, Birkenhead; Perey Meredith Earle, Brentwood.

The following gentlemen passed their first professional examination for the Licence in Dental Surgery:—

Benjamin John Douthwaite, London; Thomas Prittie Ritehie, Edinburgh; David Browne, Montrose; William Hopper Harrison, Guiana; and Andrew Burns, London; and James Main Nieol, London, passed his final examination, and was admitted L.D.S. Edinburgh.

Good *v.* Whittle and Others. — At the Liverpool Assizes, Mr. Justice Cave and a special jury were occupied for five entire days in hearing this case. The plaintiff was a Mrs. Mary Good, and the defendants were Drs. Ewing Whittle, Glynn Whittle, and Hutcheson, of Liverpool, and Dr. Mold, Superintendent of the Public Lunatic Asylum at Cheadle. The alleged libel and conspiracy consisted in certifying her as a lunatic on October 29th, 1882, when she was quite sane, and in detaining her in an asylum. Mrs. Good had been previously in the asylum, from 1877 to 1880. During that time she frequently petitioned the Lunaey Commissioners for her release, but an inquisition held on her pronounced her of unsound mind and incapable of managing her affairs. In August, 1880, after repeated examinations by the Lunacy Commissioners into her state of mind, she was at last released on probation with the consent of her brother. There seems to have been no doubt of her insanity at this period, as she was habitually dirty and undressed, and possessed the delusion that her brother was squandering her money, and that her friends as well as the Roman Catholic hierarehy were leagued against her, to keep her children from her, &c. This state of mind was the result of drink, and of low thoughts and habits frequeutly indulged in. In March, 1881, Dr. Ewing Whittle was asked by plaintiff's brother, a Mr. Edwards, to see her for the first time. Dr. Whittle considered her eccentric, but not sufficiently insane to warrant the restraint of an asylum. Soon afterwards she committed bigamy, by marrying a man much beneath her in social position, whilst Mr. Good was still alive, and in consequence of this erime she was arrested by the police. Her brother, Mr. Edwards, who seems to have acted very kindly and considerately all through, got her released on the plea of insanity, and Drs. Whittle, father and son, were called in to certify to her state of mind. Dr. Hutcheson saw her at the request of Dr. Glynn Whittle, so as to support their opinion, as a rumour had reached the certifiers that a lawyer was taking up the patient's case. On these certificates she was again sent to Cheadle, under Dr. Mold's care. The certificates were not considered strong enough by the Lunacy Commissioners, even after their amendment by the certifiers, and in consequenee of this she was discharged on a lunaey order, December, 1882. Next day she was re-examined and recommitted to the asylum, on the certificates of Drs. Renaud and Braddon, and detained there till March 10th, 1883. Two Commissioners then examined her, and although they were not satisfied as to her sanity and veracity, she was discharged on probation, and her solicitor took her away. The evidence for the plaintiff consisted in her own statements, and in general statements of belief in her sanity by the greengrocer and his wife, the dressmaker, domestic servant, and the rent-collector of the plaintiff. Drs. Warburton and Utting, of Liverpool, had seen her occasionally and thought her sane, whilst Dr. McMillan, of Liverpool, and Dr. Hefferman, of St. Helen's, came to the conclusion, from their examination of her at Cheadle, just before her discharge in 1883, that she was sane. From the evidence of Drs. Whittle (father and son), Drs. Hutcheson, Braddon, Renaud, and Mold, the plaintiff was still possessed, in October and December, 1882, by the delusion that her property was being squandered by her brother (who has since died). This was proved to be a delusion at the trial, as all the accounts were quite correct, and not only so, but the brother had assisted to keep her out of his own means when in the asylum. The weak points in the defendants' case consisted in the insufficient certificates and the close alliance in interests of the certifiers, father and son. The latter point was corrected to some extent by the presence of Dr. Hutcheson, an old experienced practitioner. The judge in summing up said that he felt inclined to agree, that the possibility that a person might be shut up on the certificates of two medical gentlemen who had attained the age of 21 years was startling, and one was sorry that that was the state of things; but the remedy for that was legislation. It is also startling, from the medical aspect, that a medical man may, after the greatest exercise of care and skill, be exposed to the necessity, expense, and inconvenience of defending himself from the charge or suspicion of illegally assisting in incarcerating a sane individual. It is pleasant to have to state that in this case the jury returned a verdict for the defendants on all the counts of the indictment. Probably the doctors are now sorry that they saved Mrs. Good from the punishment due to her adultery and bigamy. At any rate, it would be well for ordinary medical men in such cases to let the law take its course, unless the insanity be very pronounced; for persons of the type of Mrs. Good suffer as much from wickedness and depravity as from insanity, and they will turn on their best benefactors just as she did upon her brother. More for the medical profession than the public is it necessary that the law should be changed. That medical men have hitherto exercised this great power without any serious abuse, is one of the greatest compliments that could be paid to the profession. If, however, vexatious consequences frequently follow a careful exercise of certifying functions, then all wise medical men will do well to let the public manage their lunatics as they wish, and to refuse to certify until they are guaranteed freedom from assaults afterwards on their character and their purse.

Naval Medical Department.—The following appointments were announced on August 11th: Staff Surgeons—William H. Stewart, to the *Clyde;* Alfred G. Delmege, to the *St. Vincent;* Henry T. Cox, to the *Canada;* Horace E. H. Cross, to the *Cambridge.* Surgeons — Jeremiah Sugrue, to the *Watchful;* Alexander G. P. Gipps, to the Haslar Hospital; Donald S. Gunn, to the *Canada.* In accordance with the provisions of Her Majesty's Order in Council of 1st April, 1881—Fleet-Surgeon Donald Maclver, M.D., has been placed on the retired list.

The Radcliffe Infirmary.—A petition has been presented to Her Majesty in Council by the Earl of Jersey and others, and the Chancellor, Masters, and Scholars of the University of Oxford, praying for the grant of a charter for the incorporation of the President and Governors of the Radcliffe Infirmary, Oxford. The petition has been referred to a Committee of the Privy Council, by whom it will be considered on the 25th of September.

Handsome Legacies.—The following are among the public bequests of the late Mr. Alex. Martin, Ochilview, Southfield, Stirling: Stirling Royal Infirmary, 500*l.*; Glasgow Royal Infirmary, 1,000*l.*; Glasgow Western Infirmary or Hospital, 1,000*l.*; Liverpool Royal Infirmary, 1,000*l.*; Liverpool Northern Hospital, 500*l.*; Liverpool Southern Hospital, 500*l.*

Died in Harness.—Dr. Donald Cochrane Campbell, Medical Superintendent of the Essex County Lunatic Asylum, died on Friday evening, in the 65th year of his

age. He had been superintendent of the asylum from the date of the opening of the institution in 1853, and had held the appointment for the long period of 31 years.

Queen's College, Edinburgh.—A petition has been addressed to Her Majesty in Council by Dr. Henry J. Littlejohn and others, praying that a charter of incorporation may be granted to the Queen's College, Edinburgh, and has been referred to a Committee of the Privy Council, by whom it will be taken into consideration on the 25th of September.

The late Sir Erasmus Wilson.—The remains of this lamented member of our profession were interred on Wednesday last, the 13th instant, at Swanscombe, Kent, the parish church of which it will be remembered he restored, at his sole expense, in 1873. It is stated that the College of Surgeons, as residuary legatees, will come in for about £180,000.

Cooking Castor-Oil.—The French method of administering castor-oil to children is to pour the oil into a pan over a moderate fire, break an egg into it and stir up. When it is done, flavour with a little salt, or sugar, or currant jelly.

American Medical Novelists.—A novel from the pen of Dr. Weir Mitchell, founded upon events which occurred in the American War, is now publishing in the *Atlantic Monthly*. And, according to the *New York Medical Record*, Dr. W. A. Hammond, who held the post of Surgeon-General during a large portion of the American War, announces that he has four novels written, and intends hereafter to publish two a year. He states that he would rather be a novelist than a doctor, and thinks that it is time that medical men gave, in a literary way, some of the results of their rich and peculiar experience with human nature.

Medical Sickness, Annuity, and Life Assurance Society.—The first general meeting of this society, which has recently been established to enable members of the profession to secure for themselves payments in times of sickness, annuities in old age, and certain sums at death, was held recently in the Greek Lecture-room, Queen's College, Belfast. The report of the committee stated that nearly 500 members had joined during the first quarter, that there was an available cash balance on the 30th of June last of 1,434*l.* 16*s.* 3*d.*, and the present premium income of the society 5,500*l.* per annum, an amount which it was anticipated would be rapidly increased. The report and accounts were adopted after a short discussion, and a code of rules presented by the committee accepted. It was also resolved to register the society under the Friendly Societies' Act.

The Apothecaries Hall.—The following gentlemen have been elected examiners by the Society of Apothecaries for the ensuing year, viz., Henry Bullock, F.R.C.S., Esq.; Alfred Carpenter, M.D., University of London; Henry R. Crocker, M.D., University of London; Robert Fowler, M.D., University of Edinburgh; F. de Havilland Hall, M.D., University of London; Frederick J. Hensley, M.D., University of Cambridge; Robert J. Lee, M.D., University of Cambridge; W. Withers Moore, M.D., University of Edinburgh; George H. Savage, M.D., University of London; John S. Stocker, M.D., University of London; John C. Thorowgood, M.D., University of London; Francis Warner, M.D., University of London.

Collegiate Statistics.—Perhaps the following results of the examinations for the diploma of membership of the Royal College of Surgeons, which were brought to a close on the 8th instant, will be read with some interest by metropolitan and provincial teachers and members of the profession generally:—There were 352 candidates as against 270 the corresponding period last year. Taking them in numerical order—St. Bartholomew's sent 53 candidates, University College 39, Guy's 27, St. George's 23, King's College 19, St. Thomas' 15, London 15, Charing Cross 13, the Middlesex 13, St. Mary's 12, and the Westminster 11. The provincial schools were represented by—Manchester 24, Cambridge 13, Leeds 11, Birmingham 8, Bristol 8, Liverpool 7, Newcastle 5, and Sheffield 3. Edinburgh and Glasgow sent respectively 21 and 4, Dublin 3, Madras 2, Calcutta 1 and Bombay 1; McGill, Montreal, 3; Toronto 2 and Amsterdam 1. Of the 352 candidates, 60 passed in Surgery, and when qualified in medicine and midwifery will be admitted Members of the College. Of those who failed to acquit themselves to the satisfaction of the Court of Examiners, 1 was referred to his professional studies for twelve months, 6 for nine months, 108 for six months, and 40 for three months, making a total of 155 rejected candidates out of the 352 who presented themselves. Of those who were admitted members, 81 held medical qualifications.

The Brompton Consumption Hospital.—A quarterly court of the governors of this charity was held on August 7th, Mr. T. P. Beckwith in the chair. From the report of the committee of management it appeared that since the annual court, both buildings, containing 331 beds, had remained fully occupied; but the committee were now about to close part of the older building for needful colouring and cleaning. The question of funds continued to be an anxious one for the committee, the expenses being increased to about 24,000*l.* a year by the opening of the extension building. There was only one bequest to announce—viz., the residue of the estate of the late Mr. Stallibrass, from which very little, if any, benefit was expected to accrue to the charity; but the sum of 1,500*l.* had been received from Mr. J. D. Allcroft, a friend of long standing, and a further donation of 250*l.* from Mr. and Mrs. Vertue Edwards, instead of a legacy. But for this assistance the committee would have been compelled to order a further sale of stock. Mr. H. Herbert Taylor had been appointed assistant resident medical officer. The number of in-patients admitted since the 29th of May was 287; discharged, many greatly benefited, 285; died, 59; new out-patient cases, 2,403.

Women as Pharmacists.—The *Philadelphia Medical News*, July 19th, states that Louisville has established the first school for educating women in pharmacy, and this has recently observed its annual commencement. The address delivered on the occasion by Dr. Yandell, contained some wise and practical remarks, informing the graduates that as they had entered into competition with men, they must expect just the same treatment that men give to their fellows:—"You have chosen to align yourselves with man, you have become his competitor for bread—his rival in work; look out for no other treatment than he gives his fellows. The lines of commerce are merciless, and true banking knows no friends." "This truth," the *News* observes, "is of great importance, and we sometimes think it is not sufficiently appreciated by those who enter this contest, whether in the professions or trades hitherto occupied exclusively by men. Undoubtedly woman possesses faculties which peculiarly adapt her to pharmacy, and her success she alone must determine. It is well that the experiment is being tried, for the just tendency of the time is to demand more and better paid work for women."

Activity of an Old Vaccine Crust.—A remarkable instance of the preservation of the activity of a vaccine crust is related in the *North Carolina Medical Journal*. A package of vaccine at some period between 1803 and 1825, was sent to the Hon. Willis Alston, which remained unopened until it fell into the hands of his grandson, Dr. Alston, in 1869. It was a crust embedded in wax and enclosed in a wooden box. Dr. Alston vaccinated his servant with a part of this crust, and "in due time," he writes, "it took effect, leaving a well-defined scar."

Weight in Relation to Life Assurance.—Dr. Seaverns read a paper upon this subject to the Massachusetts Medical Society (*New York Medical Journal*, June 21), in which he stated that among 974 deaths which had occurred in an assurance society during the last six years, he had found that 138 of the persons on their admission had weighed 15 per cent., and afterwards less, than the normal standard. From the details which he furnished, it appeared that the mortality among these persons had been large, and was in a great measure due to tuberculosis and other wasting diseases; and that this tendency was not manifested simply among those who were 20 per cent. lighter, but was also present in those not more than 15 per cent. less than the standard. In assurance societies it was

generally assumed that a variation of 20 per cent. might be allowed, without danger of incurring loss, but Dr. Scaverns felt satisfied that where a deficiency of even 10 or 15 per cent. existed, the risk must be looked upon as hazardous, or at least that the case should be thoroughly scrutinised and tested, to prevent the possibility of this deficiency being overlooked when it was only a symptom of constitutional disease, or an evidence of some pretubercular condition. A table was also presented of 122 from the same 974 deaths which occurred in persons who were 15 per cent., or more, above the standard weight when they joined the society; but this class was made up of much older men, who died from a different group of diseases to those which the other class had died of. With those who were not above 15 to 20 per cent. above the standard, the results were much more favourable than with the light weights in the same range; and it was not until the excess became from 20 to 25 per cent. that the mortality was large—and even with those above this rate, there was no such evident result of fatty degeneration or general cachexia as might have been anticipated. Deaths from cerebral and cardiac changes were prominent, as were also sudden deaths, but not so markedly as expected. In conclusion it may be stated, "that men, especially young men, who were deficient in weight, even when this was not more than 15 per cent., were more hazardous risks than those whose weights were 20 to 25 per cent. above the usual standard, and especially because of the great liability of the former to become phthisical—a tendency which need not be feared among the corpulent. Care, however, should be taken with the latter to see that the heart and kidneys were in a healthy condition, and that there was no hereditary tendency to cerebral disease."

Wood Wool.—Messrs. Essinger and Neuberger, of 11, Hatton Garden, desire us to state that they are the sole consignees for Hartmann's Wood Wool, which was noticed in our last number.

Erratum.—In the report of the Conference on School Hygiene, Mr. R. von Schweitzer is made to say that he had been a football player until he had passed his *sixteenth* (16th) year. It should have been his *sixtieth* (60th) year.

APPOINTMENTS.

Aldred, John Charles, L.K. and Q. Coll. P. Ire. L.F.P. and S. Glas.—Medical Officer to the Fourth District, Ecclesall Bierlow Union, *vice* Dr. Wm. McBeath, resigned.

Barling, H. G., M.B., F.R.C.S.—Demonstrator of Anatomy to Queen's Hospital, Birmingham.

Baron, B. J., M.B., C.M., Edin.—Physician to the Bristol General Hospital, *vice* G. F. Burder, M.D., F.R.C.P., resigned.

Benthall, W., M.B.—Honorary Physician to the Derbyshire General Infirmary.

Birch, de Burgh, M.D., F.R.S.E.—Professor of Physiology in the Yorkshire College, Leeds.

Carter, Thomas Edward, M.R.C.S. Eng. and M.B. Lond.—Medical Officer to the Stamford District and the Workhouse of the Stamford Union, *vice* T. M. Heward, deceased.

Dixon, J. R. L., M.R.C.S., L.R.C.P.—Junior House Surgeon to the Royal Southern Hospital, Liverpool, *vice* A. H. Gordon.

Gordon, A. H., M.R.C.S., L.R.C.P.—Senior House Surgeon to the Royal Southern Hospital, Liverpool, *vice* W. H. J. Sellers, M.B., C.M., resigned.

Greaves, C. A., M.B., LL.B.—Honorary Physician to the Derbyshire General Infirmary.

Greensill, Edward Samuel, M.R.C.S. Eng., L.R.C.P., Edin., and L.M.—Medical Officer to Witley District, Martley Union, *vice* Mr. J. N. Greensill, resigned.

Greensill, John Nicholas, M.R.C.S. Eng. and L.S.A. Lond.—Medical Officer to the Martley District, Martley Union, *vice* Mr. E. S. Greensill, resigned.

Hall, Thomas Lambert, M.R.C.S. Eng. and L.S.A. Lond. Medical Officer to the Dilwyn District, Weobley Union, *vice* Dr. Samuel Wilson, resigned.

Jones, Evan, L.R.C.P., L.R.C.S. and L.M. Edin.—Medical Officer to the Western District, Llandilofawr Union, *vice* Mr. W. L. Jones, deceased.

Kitchen, Charles Frederick Hewick, M.R.C.S. and L.R.C.P. Lond.—Medical Officer to the Cheetham District, Prestwich Union, *vice* Mr. R. Crean, resigned.

Knight, F., M.B., M.R.C.S.—Second House Surgeon to the Royal Southern Hospital, Liverpool, *vice* F. J. Allen, M.A., M.R.C.S., L.R.C.P., resigned.

Knox, Dr. D. N.—Surgeon to the Glasgow Royal Infirmary.

Ley, H. J., M.B., C.M., M.R.C.S.—Resident Surgeon to the Birmingham General Dispensary.

MacAlister, D., M.D.—Physician to Addenbrooke's Hospital, Cambridge, *vice* G. E. Paget, M.D., F.R.S., resigned.

Main, W., M.R.C.S.—Medical Officer to the Convalescent Home, Clacton-on-Sea.

Pringle, J. J., M.B., M.R.C.P.—Assistant Physician to the Royal Hospital for Diseases of the Chest, City Road, *vice* Dr. Coxwell, resigned.

Robertson, Dr. Alexander.—Physician to the Glasgow Royal Infirmary.

Strugnell, W. T., M.R.C.S., L.S.A.—Junior House Surgeon to the Metropolitan Free Hospital, *vice* A. S. Nance, M.R.C.S., resigned.

Turner, John Kemp, M.B. and M.C. Aberd.—Medical Officer to the First District, St. Columb Major Union, *vice* Mr. W. E. Fulford, resigned.

Wheeler, Daniel Martin Brumwell, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Workhouse, Chelmsford Union, *vice* Mr. Daniel Wheeler, resigned.

Whitson, Dr. James.—Assistant Surgeon to the Glasgow Royal Infirmary.

Wilson, Edward, M.R.C.S. Eng., and L.R.C.P. Lond.—Medical Officer to the Downham District, Ely Union.

VACANCIES.

Charing Cross Hospital.—Chair of Physiology. (*For particulars see Advertisement.*)

Chesterfield Union.—Medical Officer to the Bolsover District, *vice* Mr. W. Wallace, resigned. Area, 9,211 acres. Population, 2,758. Salary, £21 per annum.

General Hospital for Sick Children, Pendlebury, Manchester.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

Royal United Hospital, Bath.—House Surgeon. (*For particulars see Advertisement.*)

St. Bartholomew's Hospital.—Dental Surgeon. Applications with Testimonials must be left, on or before September 4th, at the Clerk's office. Further particulars from Wm. Henry Cross, Clerk.

The General Hospital, Birmingham.—Resident Registrar and Pathologist. (*For particulars see Advertisement.*)

University College, London.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

Victoria Dock District Dispensary, London, E.—Assistant Resident Medical Officer. Salary, £120, to commence, with furnished rooms, coals, gas, and attendance. Candidates must be qualified and registered. Applications, accompanied by six or less recent testimonials, to be addressed to the Secretary, and marked on the outside A. R. M. O., not later than August 18th.

West London Hospital, Hammersmith.—Registrar and Pathologist. Honorarium of £25 per annum. Applications by Aug. 21st.

DEATHS.

Campbell, D. C., M.D., at Warley, Brentwood, Essex, on August 8th.

Harris, F. W., Surgeon-Major, late Bombay Army, at Torquay, on August 7th, aged 62.

Reid, A. W. W., Surgeon, Royal Navy, at 10, Madeira Road, Streatham, on August 13th.

Watson, Henry, F.R.C.S., late of Plumstead, on August 7th, aged 84.

Wilson, Sir Erasmus, F.R.C.S., at Westgate-on-Sea, on August 8th, in his 75th year.

NOTES, QUERIES, AND REPLIES.

SIR ERASMUS WILSON.

Let Science veil awhile her guiding light
And her true votaries bow the mournful head,
For lo! an earnest labourer lies dead—
The skilled Anatomist, the Surgeon bright;
Whose name revered a multitude shall bless—
The leprous throng, the tetter tainted train
That sought his potent aid, nor sought in vain.
His monument shall be: not even less
Than that which stood of yore by mystic Nile,
And his rich largess set on Britain's isle.

Clarence Fost

MEDICAL DIRECTORIES.

[to the editor of the medical times.]

Sir,—I heartily agree with the remonstrances of "F. R. C. P." contained in your last issue, against the ridiculous accumulation of memberships, appointments, &c., in the Medical Directory, and I would seriously urge on the Publishers of that useful volume to take the matter in hand at once, by entrusting the revision or expurgation of the text to a committee of men like yourself and two or three others, generally well informed as to the constitution

of the Universities and Corporations, and the Profession. Many medical men seem to be unaware that there are appointments which, though necessary to be held by some one, do not enhance, and may even detract from a man's professional status, being held, as a rule, only by an humbler, however personally respectable a class of practitioners: and there are honours which belong to one's professional infancy that may well be put away in later years with other childish things. I would excise all club appointments, all class medals and certificates, which in small schools mean next to nothing, and even in the larger not much. Again, when a man is a graduate, what is the use of adding that he is a member of convocation or of the general council of his university? Refereeships to insurance and benefit societies, too, are of no value, and are quite different from appointments as medical officers to the same. Surgeoncies to emigrant and other ships are rarely held by the *élite* of the profession, the P. and O., and a few like them excepted.

There are resident appointments, as those to lunatic asylums, which, as indicating special experience, are of lifelong value, but house surgeoncies, even at the great London hospitals, might be dropped after ten years or so, as they are by all men who have really attained high positions in the profession.

I have begun by erasing two such, as well as a dispensary appointment (honorary) which I held for fifteen years.

The bulk of the volume might thus be materially reduced, and room made for other matter of interest to the profession at large if thought fit.

I am, Sir, yours &c.,

M.B. (Lond.)

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In your last issue I see a letter from "F. R. C. P." objecting to "Mr. A." or "Dr. B." appending to his name, in the Medical Directory, the information that he is a "member of the ——— Pathological Society, or the ——— Medical Chirurgical Society," on the grounds that "every respectable member of the profession can be admitted a member of our Local Medical Societies on payment of a guinea." That "every *respectable* member of our profession" can do so is certainly true, but the entrance to most of them is by proposition, seconding, and ballot; and the fact of a medical man being a member is, in the great majority of instances, some guarantee of the "respectability" before mentioned, and on these grounds I am of opinion that the information is useful, and not merely for self-glorification, as "F. R. C. P." would lead one to believe.

I fail to see either the "absurdity" of the practice, or the force of the parallel drawn in "F. R. C. P.'s" reference to "Mudie's."

Had "F. R. C. P." directed his tirade against such information as "Surgeon to the United Order of Pig-stickers," "Honorary Physician to the Stumpton Cycling Club," and the like, he would have found many sympathisers.

I am, Sir, yours &c.,

Leeds, August 11th, 1884. "ACHATES."

COMMUNICATIONS RECEIVED—

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BOOKS RECEIVED—

Sul Cholera, by Dott Prospero Sonsino—An Ephemeris of Materia Medica, Pharmacy, &c., by Edward R. Squibb, M.D., &c.—What to do in Cases of Poisoning, 4th Edition, by William Murrell, M.D., &c.—The Collective Investigation Record, by Professor Humphry, M.D., F.R.S.—Report on the Sanitary Condition of the Whitechapel District, for the quarter ended June 28th—Aix Les Bains, by Dr. Brachet—Observations on the Efficacy of Burning Sulphur Fires in Epidemics of Cholera, by Deputy Surgeon-General J. E. Tuson, M.D., F.R.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal——Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner. Klinische Wochenschrift—Louisville Medical News—Glasgow Medical Journal, August—Bulletins et Mémoires—Philadelphia Medical Times—Western Medical Reporter—Alienist and Neurologist—The Practitioner—Revista de Medicina—The Student's Journal and Hospital Gazette—The Australian Medical Journal—The Portsmouth Evening News, August 8th—The Dublin Journal of Medical Science—The Canada Lancet—The Canadian Practitioner—Night and Day—Liverpool Weekly Courier.

APPOINTMENTS FOR THE WEEK.

Friday, August 15 (*this day*).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, August 16.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, August 18.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, August 19.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, August 20.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, August 21.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES

AND GAZETTE.

No. 1782. LONDON, SATURDAY, AUGUST 23, 1884.

Contents.

ON INFECTIOUS DISEASES AND VACCINATION FOR RABIES.[1]

By LOUIS PASTEUR.

Gentlemen,—In addition to the fact that they are meetings at which the most important problems of medicine are subjected to examination, Congresses also serve to indicate to posterity the chief directions of progress. Three years ago when the Congress met in London the microbe theory in its application to the ætiology of infectious diseases was still the subject of violent attack. Many who opposed themselves to advanced ideas persisted in maintaining that diseases exist "in us, from us, and by us."

One would imagine that those who hold that these diseases arise spontaneously, would in London have shown themselves eager to defend this thesis, but opponents to the doctrine that the principal cause of infectious diseases is an external one, did not venture to come forward, and discussion on this question was not even opened. In such an assembly as this, when all are prepared for a new triumph of truth, we see at length a way open for these men to give in to it.

For the rest, all clear-sighted men had foreseen that as soon as one would be able to show that the spontaneous origin of microscopic life was a chimerical hypothesis, and on the other hand that this microscopic life had relations to organic decomposition and fermentation, theories as to the spontaneous origin of disease would cease to exist. In like manner it is from the London Congress that another important advance dates its confirmation, namely, the possibility of attenuating the different viruses, varying their infectivity and preserving them by means of suitable cultures, and lastly, the application of this discovery to veterinary medicine. To the vaccine-microbes of fowl-cholera and splenic fever, one has been able to add others; and the animals that are protected against the attacks of fatal infectious diseases are now to be counted by hundreds of thousands. The violent opposition which this innovation has encountered will soon be swept away in the current of new ideas. Is the application of this new advance then to be confined in the future to the prevention of the diseases of animals? Besides the fact that one need never despair of a discovery and its fruitfulness, can we say that

[1] Address delivered at the International Medical Congress at Copenhagen, August 11th, 1884.

this question is already solved in its principal points? Splenic fever for example is common to animals and man; and we can say for certain, that if it were worth while, nothing would be simpler than to produce in man insusceptibility to this disease. The procedure which is successful in animals, would be applicable without modification so to speak. It would simply depend on one's proceeding with an extraordinary degree of caution, such as the life of an ox or a sheep does not require. Instead of vaccinating with vaccine of only the second degree, one could take three or four of variable virulence, till one chose the first weak enough not to cause the slightest symptom, but which would yet produce insusceptibility to the disease. In the case of human diseases the difficulties lie then, not in the application of the new prophylactic method, but rather in the knowledge of the physiological properties of the virus. To attenuate the virus to the proper degree, it is necessary to control our efforts by experiment; but the experiments which are allowable in animals are criminal when we have to do with man. In relation to the diseases which exclusively affect mankind, this is the chief cause of the difficulties of the investigation. Let me in the meantime remind you that the enquiry, of which we are speaking, dates so to speak from yesterday, that it has already been fruitful in results, and that we have a right to expect new advances when we obtain a closer acquaintance with the diseases of animals, especially those which attack both man and beast. It was the desire to penetrate further into this twofold knowledge which induced me to study rabies, in spite of the obscurity in which that disease was enveloped.

It is now four years since the study of rabies was first commenced in my laboratory, and it has been continued without any other interruption than the enforced cessations which depend on the conditions of the enquiry, conditions which are very unfavourable. The incubation of the disease is always of long duration. There are never sufficient facilities to enable one at a given moment to multiply experiments. In spite of these material hindrances, which however the French Government, in its care for the great scientific interests involved, has done everything in its power to remove, the experiments which we, my fellow-workers and I, have carried out, have nevertheless passed beyond the possibility of numbering them. To-day, gentlemen, I shall only describe the most recent results of our enquiries. Every disease, and especially such a disease as rabies, immediately makes one think of its cure, but to set oneself forthwith to search for remedies is to expose oneself to what is only too often a fruitless labour. It is in a manner to trust to accident for advance. Better is it to undertake in the first place to study the nature of the disease, its cause and development, in the distant hope of thereby discovering means of preventing it. If the problem of rabies is to-day no longer insoluble, it is to these last-named methods that we owe this advance. Thus we have proved that the virus of rabies always develops itself in the nervous system, in the brain, the spinal cord, the nerves, and the salivary glands, and never simultaneously invades every part. It may for example fix itself in the spinal cord, and then attack the brain; or one may find it in one or more parts of the brain and not in others.

If one kills an animal, when the disease is at its height, it is often difficult to find the virus of rabies at any given point in the brain or spinal cord, but we have fortunately discovered that in every case in which death occurs as a natural result of the development of the disease, the uppermost portion of the spinal cord, which forms the point of transition between the cord and brain, and which one calls *the bulb*, is invariably the seat of the poison. When an animal dies of rabies (and we know that the disease invariably ends in death), it is absolutely certain that one will be able to obtain from the animal's *bulb* rabies-virus, which will produce the disease by inoculation on the surface of the brain in the arachnoid cavity, after previous trephining.

If you take any street-dog you please and inoculate rabies in this manner by trephining, using as inoculating-material a portion of the bulb of an animal which has died of the disease, you will invariably convey rabies. The dogs to which the disease has been communicated in this manner are to be counted by hundreds. The method has never failed. The same operation has been performed on hundreds of guinea-pigs and on a yet greater number of rabbits, without a single failure.

These two remarkable results, the invariable presence of the virus in the bulb of animals dead of the disease, and the certainty that one can communicate rabies by inoculation in the arachnoid cavity are axioms firmly established by experiment and are of extreme importance. Thanks to the careful application and the so to speak daily employment of these criteria we were able to proceed with certainty in a study of such difficulty. But however solid this experimental basis may be, it is not in itself able to show us the way to a vaccination-method against rabies. In the present position of science to presuppose the discovery of a means of preventing infectious disease by vaccination —(1) one must have at one's disposal a virus which can exist in different degrees of virulence, the weakest of which may serve as a vaccine; (2) one must have discovered a method of producing these varying degrees of virulence. Hitherto science has known only one kind of rabies, that which occurs in dogs. All hydrophobia, in dogs, men, horses, cattle, wolves, foxes, &c., comes originally from the bite of a mad dog. Rabies never arises spontaneously, either in the dog or any other animal.

None of the instances on record of rabies occurring spontaneously are really authentic; I will add that in making this assertion I do not ignore the fact that there must have been a *first* case of rabies. To come forward with this kind of objection, when it is a question of solving the enquiry which engages us, helps no one, but touches a problem which even now is still inscrutable—the very problem of life. It is like answering one who should maintain that an ovum always originates from an ovum, but nevertheless that the first ovum must have originated spontaneously. Science, which knows itself, sees that it benefits nobody to argue about the origin of things; it sees that such origin for the moment at least lies beyond its province.

In short, the enquiry whether the rabies-virus can occur in different degrees of virulence like the virus of fowl-cholera, of splenic fever, &c., that is the first question to solve in order to arrive at the prophylaxis of hydrophobia. But how does one obtain the knowledge that there are various possible degrees of virulence in the virus of fowl-cholera? And to what signs does one have recourse to determine the strength of a virus which kills whenever it infects?

Does rabies present any symptoms to help us? No, these symptoms are very variable. They depend essentially on the brain or spinal cord, where the virus instantly concentrates itself and flourishes. The mildest rabies that occurs—for such does occur—may in another animal of the same species produce the most violent rabies. Can one then determine intensity by means of the duration of the incubation period? No, nothing is more variable. A mad dog bites several dogs; one of these goes mad after an interval of a month or six weeks, another after two or three months' interval, and so on. Further, nothing can be more variable than the duration of the incubation period, according to the various modes of inoculation. Does one never see hydrophobia now occur, and now fail to occur, after a bite or hypodermic injection under exactly similar circumstances in every other respect, whilst inoculation on the surface of the brain never fails, and the incubation period is in such case of proportionally short duration?

Nevertheless, it is possible to determine, with sufficient certainty, the strength of a rabies-virus according to the duration of the incubation, but on two conditions. One must make use of intracranial inoculation, and one must bear in mind that the manner in which inoculation takes place furnishes one of the most powerful sources of irregularity in the results according as inoculation is by bite, by hypodermic or intravenous injection. The duration of incubation may really depend very much on the quantity of active virus, that is, the virus which reaches the nervous system without diminution or change. Notwithstanding that the quantity of virus which will produce rabies may be, so to say, infinitely small—it has been shown that, as a general rule, hydrophobia occurs in consequence of a bite, whereby the quantity of virus introduced into the body must generally be so small as to be almost indefinable—it is easy to double the length of the incubation, simply by taking a still smaller proportion of the small quantity inoculated. I will quote some examples:—

On May 10th, 1882, there were introduced into the popliteal vein of a dog ten drops of a fluid, which had been obtained by macerating in three to four times its weight of sterilised broth a portion of the bulb from a dog, which had died of rabies after being found in the streets in a mad condition.

A second dog was inoculated with a hundredth part of the quantity, and a third dog with a two-hundredth. The first dog was seized with rabies after an incubation period of 18 days, the second after 35 days, the third remained unaffected, *i.e.*, in this last case, and by the method of inoculation used in this experiment, a certain quantity of virus proved insufficient to produce rabies. This last dog was susceptible of rabies, as all dogs usually are, for it was again inoculated on September 3rd, 1882, and was seized with rabies 22 days later.

I take another example, which occurred in rabbits, and in which another mode of inoculation, viz., trephining, was employed:—The bulb of a rabbit, which had died of rabies after inoculation with a very virulent virus, was dissolved in two or three times its bulk of sterilised broth. After it had been allowed to stand for some few seconds, two drops of the supernatant liquid were inoculated into a rabbit by trephining, another was inoculated with a fourth of that quantity, and other rabbits were subsequently inoculated with $\frac{1}{16}$th, $\frac{1}{64}$th, $\frac{1}{128}$th, and $\frac{1}{512}$th of the same quantity respectively. All these rabbits died of rabies, and the length of incubation was eight days in the first, nine in the second, ten in the third and fourth, and twelve to sixteen days in the two last. This variation in the period of incubation was not occasioned by an attenuation of the actual virulence of the virus, such as might be produced by solution; for there was a return to the eight days' incubation period if fresh rabbits were inoculated with the virus obtained from these rabbits after death. We see from these examples that in the case where rabies is produced by a bite, or by hypodermic injection, interference with the length of the incubation period must be chiefly ascribed to the great variation which is possible in the amount, always indefinite, of inoculated poison which reaches the central nervous system.

If then we wish to determine the intensity of the virus from the length of the incubation period, it is unavoidably necessary to have recourse to inoculation by trephining, which is absolutely certain in its effects, and to employ larger quantities than such as would be necessary simply to produce rabies. When we operate in this way, irregularities in the length of incubation with the same virus will show a tendency to entirely disappear, because we always obtain the maximum of effect which the virus can produce; that maximum corresponding to the minimum duration of incubation.

Thus we have at length obtained a method which has enabled us to enquire into the possible existence of varying degrees of virulence, and to mutually compare them. The only secrets in this method, I repeat, are to inoculate by trephining, and to use a quantity of virus, which, although very weak, is more than sufficient to produce rabies in and by itself. This method eliminates the causes which might interfere with the duration of the incubation period, and makes it dependent exclusively on the activity of the virus, the comparative strength of which varies according to the minimum duration of incubation, which is determined by its effect.

The first application of this method was in connection with the study of rabies, and expressly in connection with attempts to discover if rabies is always one and the same, only with such differences as the varying nature of different kinds of dogs might produce. Let us then take wandering mad dogs at any season you please in the same year, or in different years, and belonging to the most different varieties. Let us in each case isolate the bulb, and, with the material obtained from it, inoculate by trephining from one to

two rabbits, using two drops of the fluid obtained by macerating the bulb in two or three times its bulk of sterilised liquid ; all proper cleanliness being observed. Let the inoculation be performed with the help of a Pravaz' syringe, somewhat bent at the end, introducing it through the dura mater into the arachnoid space. The following will be observed :—In all the rabbits, no matter what mad dog was used to inoculate them from, the incubation period will fall almost without exception between the twelfth and fifteenth days—you will never meet with an incubation period of eleven, ten, nine, or eight days ; though you may sometimes meet with periods of several weeks or several months.

Rabies thus clearly enough possesses one poison only ; its modifications, which however are very limited, depend simply on the known difference in the susceptibility of various kinds of dogs. But we shall now see a very marked change in the virulence of rabies-virus.

Let us take after death one of the numerous rabbits which we have inoculated with the virus taken from a mad dog, and let us introduce two drops of its bulb, prepared in the way given above, into another rabbit, whose bulb again shall serve to inoculate a third rabbit, and its bulb again to inoculate a fourth, and so on. You will then observe, even from the first transmission, a diminution in the incubation period in the various rabbits. I will give an example :—

In the last month of 1882, fifteen cows and one bullock died of rabies on one farm near Melun, a principal town in the Department Seine et Marne, in consequence of having been bitten, on October 2nd, by the farm-dog, which had gone mad. The head of one of the cows, which died on November 19th, was sent to the laboratory of M. Rossignol, a veterinary surgeon at Melun. Numerous experiments, performed on dogs and rabbits, showed that only the following parts were the seat of the virus, viz., the cerebrum, bulb and cerebellum, the frontal and temporal lobes. The rabbits which were inoculated from these parts were seized with the disease on the seventeenth or eighteenth day after inoculation. With the bulb taken from one of these rabbits after death, two other rabbits were inoculated, one of which was attacked by the disease on the fifteenth day, and the other on the twenty-third day after inoculation. I will observe once for all, that if we transmit rabies from one animal to another of a different species, before the virus has reached its maximum in the former, considerable irregularity is met with in the duration of the incubation period. We have here an instance of this, for the same virus in one rabbit gave an incubation period of fifteen days, and in the other one, of twenty-three days, though all the other conditions were apparently similar.

With the bulb taken from the former of these two dead rabbits, two other rabbits were inoculated. In one of these the disease appeared after an interval of ten days ; in the other after an interval of fourteen days. The bulb of the former of these was in like manner used to inoculate two more rabbits, in whom the disease appeared after intervals of ten and twelve days respectively. In the fifth transmission to two rabbits the disease appeared in both after eleven days' interval, in the same manner in the sixth transmission the disease appeared after eleven days' interval, in the seventh after twelve days' interval, in the eighth after ten days' interval, in the ninth also after ten days' interval, in the tenth after nine days, in the eleventh after eight days, in the twelfth after nine days, and so on, with variations of not more than twenty-four hours at the outside right down to the twenty-first transmission, when rabies appeared after eight days' interval ; the same interval of eight days was obtained in further transmissions, down to the fifteenth, which has recently taken place. This series of experiments which commenced on the 19th November, 1882, is still in progress.

Allow me at this point to draw your attention to the extreme certainty and facility which characterises trephining and subsequent inoculation with rabies-virus : for on every twelfth day for a period of about twenty months a succession of rabbits have been trephined and inoculated with a rabies-virus procured from a single individual, and that without any interruption in the success of the experiments.

Guinea-pigs most rapidly attain the maximum virulence peculiar to them. In these animals the incubation period, which varies and is irregular at the beginning of successive transmissions, quickly attains a definite duration of five days. Seven or eight transmissions from guinea-pig to guinea-pig brings us to the maximum virulence. Moreover, both in guinea-pigs and rabbits, one observes according to the origin of the virus variations in the number of transmissions required to obtain the maximum virulence. If we transmit this maximum degree in rabbits and guinea-pigs to dogs, we obtain a virus which far surpasses in virulence that of the rabies which is commonly met with.

But I hasten to say, that whatever may be the usefulness of the discovery which I have just described, there exist and can be produced different kinds of rabies—all of which are more violent and kill more rapidly than the rabies which occurs in dogs. Scientific men overlook nothing which can be discovered in the field of science ; but many whom the very thought of rabies strikes with fear look for something more than scientific curiosities. How much greater interest would man have in becoming acquainted with a rabies-virus which had been attenuated in its virulence! One then might cherish a hope of obtaining a vaccine from the rabies-virus, such as we have obtained in fowl-cholera, splenic fever and even acute septicæmia. Unfortunately the methods of procedure which were used in regard to these poisons proved themselves inapplicable in dealing with the virus of rabies. It therefore became necessary to try new and independent methods, for instance, cultivation of the rabies-virus in glass.

Jenner was the first to propound the idea that the poison which used to be called "grease" in horses, but which we now more accurately describe as "horse-pox," must be attenuated in its poisonous activity, if I may use the expression, by being transmitted through cows, before it could be introduced without danger into the system of man. This induced us to think it might be possible to attenuate the rabies-virus by passing it through the bodies of certain animals. Many attempts were made, but in the majority of the experiments on

animals, the poison increased in virulence, just as in rabbits and guinea-pigs ; fortunately this was not so in the case of monkeys.

On December the 6th, 1883, the bulb of a dog, which was known to be mad from the fact that a child which it had bitten had died of hydrophobia, was used to inoculate a monkey by trephining. The monkey was attacked with rabies eleven days later; from the first monkey the virus was transmitted to a second one, which was also attacked with rabies after eleven days' interval. In a third monkey rabies declared itself after an interval of twenty-three days, and so on. With the bulb of each of these monkeys two rabbits were inoculated by trephining. The rabbits which were inoculated from the first monkey were seized with rabies after intervals of thirteen and sixteen days respectively ; those inoculated from the second monkey after fourteen and twenty days ; those from the third after twenty-six and thirty days ; those from the fourth after twenty-eight days, in each case ; those from the fifth after twenty-seven days ; and those from the sixth after thirty days.

It is thus impossible to doubt that by transmission from monkey to monkey, and from the different monkeys to rabbits, the strength of the poison is weakened in the latter just as it is weakened in the dog. A dog which was inoculated with the bulb of the fifth monkey had an incubation period of not less than fifty-eight days, although inoculation was performed by trephining. Other experiments of the same nature, which were performed on a series of monkeys, led to results of a like character. We are thus in possession of a method which enables us to attenuate the virulence of rabies. Successive transmissions from monkey to monkey produce a virus which, on being transmitted to rabbits, communicates rabies after an incubation period, the length of which gradually increases. If, on the other hand, one passes on from these rabbits to successively inoculate fresh rabbits, the rabies comes under the law of increasing virulence on transmission from rabbit to rabbit, of which I have already spoken. The application of these facts yields a method of vaccinating dogs as a protection against rabies. We take as a starting point one of the rabbits which have been inoculated from monkeys, to such a sufficient degree that hypodermic or intravenous injection does not cause death. The succeeding preventive inoculations are performed with the virus-containing bulbs of the rabbits which have been the subjects of successive transmissions of infection from rabbit to rabbit, proceeding from the first infected.

In our experiments we have as a rule employed inoculation with virus from rabbits which have died after an incubation period of four weeks, but three or four times we have renewed our preventive inoculation from the bulbs of rabbits, which have been inoculated from the rabbit which served as our point of departure.

After I had brought into use this method of vaccinating dogs as a protection against rabies and had collected a large number of dogs, which were rendered insusceptible of the disease, foreseeing a more extensive application of the method, and remembering the opposition which was at first shown to Jenner's discovery, I determined to lay before a scientific commission such of my results as it was obvious must serve in the future as the basis for the vaccination of dogs for rabies.

The Under-Minister of Instruction, M. Tallières, to whom I mentioned my project, was willing to support it, and appointed MM. Béclard, Paul Bert, Bouley, Tisserand, Villemin, and Vulpian to enquire into the facts, which I had already communicated to the Academy of Sciences at its meeting on 29th May. After having chosen M. Bouley as President, and M. Villemin as Secretary, the Commission at once set to work, and I have the satisfaction of being able to tell you that it has quite recently presented its first report to the minister.

I will now give a brief account of the results with which the first report of this Commission deals. I presented to the Commission nineteen vaccinated dogs, all of which had been rendered insusceptible by preventive inoculation, and thirteen of which after vaccination had been proved by inoculation by trephining. These nineteen dogs were compared in different ways with nineteen dogs chosen from others for the purpose of the experiments. In the first place, on the 1st of June, two of the protected dogs and two of the trial dogs were inoculated by trephining under the dura mater with the bulb from a mad street-dog. On the 3rd of June, one protected dog and one trial dog were bitten by a mad street-dog. On the 4th of June, the Commission made the same mad dog bite another protected and another trial dog. On the 6th of June, the mad dog which had been used on the 3rd and 4th of June died, and with its bulb three protected dogs and three trial dogs were inoculated by trephining. On the 10th of June, the Commission had one protected dog and one trial dog bitten by a fresh mad dog from the streets. On the 16th of June, the Commission had two fresh dogs, one protected and one trial dog, bitten by one of the trial dogs of the 1st of June, which had gone mad on the 14th, as a result of the trephining performed on the 1st of June. On the 19th of June, the Commission had three protected and three trial dogs inoculated in one of the popliteal veins with the bulb of a mad street-dog. On the 20th of June, the Commission also had ten dogs, viz., six protected and four trial dogs, chosen from several others, inoculated in a vein. On the 28th of June, it having been brought to the knowledge of the Commission that a veterinary surgeon, M. Paul Simon, had a mad dog in his hospital, four dogs were brought to it, viz., two protected and two trial dogs, in order that it might bite them.

The Commission on rabies has thus performed experiments on thirty-eight dogs, nineteen of which had been supplied by me as insusceptible to rabies, while the other nineteen could be made mad. Those of the dogs which have not died as a result of the experiments are under observation, and will be kept under it for a long time. As to the present condition of the dogs which have been the subject of enquiry, the Commission report that in the case of the nineteen trial dogs, of six which were bitten, rabies occurred in three, of seven which were inoculated in a vein it occurred in five, and of five which were inoculated by trephining it occurred in all, while *not a single sign of*

*

rabics has shown itself in any of the nineteen vaccinated dogs.

During the course of the enquiry one of the protected dogs died on the 13th of July from a sanguineous diarrhœa, which first declared itself in the early days of that month. In order to determine whether rabies had any share in its death, three rabbits and one guinea-pig were at once inoculated with its bulb by trephining. All of these four animals are still in the best of health, which is a certain proof that the dog did not die of rabies, but of a common disease.

The next report of the Commission will contain information as to the insusceptibility to rabies of twenty dogs which have been vaccinated by the Commission itself.

THE BRADSHAWE LECTURE

ON

THE PATHOLOGICAL RELATIONS OF THE ABSORBENT SYSTEM [1]

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The occasion of the present assembly of this College is for the delivery of the fourth Bradshawe lecture. By the munificence of the widow of William Wood Bradshawe, of Andover and Reading, a Member of this College, a Master of Arts and a Doctor of Civil Law of the University of Oxford, a sum of money was bequeathed, whereby a lecture might be delivered at this College annually, with the object of perpetuating the memory of her husband, it being stipulated that the subject of the lecture should have a bearing upon some question of medicine, and that the lecture should be delivered upon the 18th day of August, the anniversary of his death. The munificence of the benefactress and generous founder is well deserving of an expression of respectful and appreciative commendation, in that, while endeavouring to preserve the name of a loving husband, she was actuated with the laudatory idea of associating such with a formal discourse for the advancement of the profession to which he was devoted and which he adored. This home-loving, studious, and scholarly man, who diligently cultivated his mind in literature and science, may, therefore, be fittingly extolled as an example for others to follow. His name will be justly venerated and transmitted in good repute, as well as that of his generous and devoted widow.

In undertaking the important duty that has been entrusted to me, I feel the honour and estimate the responsibility of the position. It shall be my earnest endeavour to justify the choice of our revered President, to whom I beg to offer my grateful acknowledgments for this distinctive mark of his favour.

I have selected "The Pathological Relations of the Absorbent System" as the title of the lecture. The absorbent system occupies a prominent place in relation to several important pathological processes and conditions, and is at the present time receiving considerable attention from histologists and pathologists. As illustrations of these relationships, it may be mentioned that this system is undoubtedly concerned in many septic conditions, and the late Messenger Bradley classified glanders, malignant pustule, snake bite, dissection wounds, and erysipelas as forms of septic lymphangitis. Moreover, it is supposed to play an important part in relation to various zymotic diseases, such as plague, typhus and typhoid fevers, and diphtheria. The serous cavities are also now regarded as parts of the lymphatic system, and some cases of inflammation of serous membranes, for instance, of puerperal peritonitis, are considered as being due to lymphangitis. Again, the absorbents are concerned in conveying to various parts of the body morbid products, such as those of cancer, syphilis and tubercle, and thus of disseminating these diseases through the system. Again, they are often involved in connection with diseases of internal organs. Some structures consist mainly of lymph follicles, and their chief diseases are associated with these follicles. Certain skin diseases, such as erythema, have been attributed to inflammation of lymph rootlets, and changes in the lymphatics seem to constitute an important element in the morbid anatomy of elephantiasis and several other affections. These illustrations will suffice to show the importance of the pathological relations of the absorbent system, and justify the selection of this subject for this commemorative lecture.

As an introduction to the consideration, it will be fitting that a short reference should be made to the anatomy and physiology of the absorbent system. For without such a statement the pathological changes, or the departures from the healthy state to those of disease, could not be indicated with the same precision and comparative exactitude as this method will ensure. Having in regard, also, that physiology, in its true acceptation, is the science which treats of the conditions, phenomena, and laws of the life of the human body, in the state of health, while pathology comprises the departures from such, manifested to the observer in disease, this process commends itself as the right and true way for this dissertation to be conducted.

The lymphatic and the lacteal systems together constitute the absorbent system. There is no essential difference between the two systems. The process of absorption has for one of its objects the introduction into the blood of fresh materials from the food and air, and of whatever comes into contact with the external or internal surfaces of the body, and, for another, the gradual taking away of parts of the body itself, when they need to be renewed. In both these offices, absorption from without, and absorption from within, the process manifests some variety, and a very wide range of action, and in both two sets of vessels are, or may be, concerned, namely, the blood vessels and the absorbents. The lymphatic system may, therefore, be considered as an appendage of, or supplementary to, the blood vascular system, the materials which they take up being, in fact, merely the spare nutrient substances forced into the intertextural spaces, that is, the commencement of the lymphatics, by the continued exudation of fresh fluid from the capillaries.[2] The lymphatics never come quite close to the surface of the dermis, but the blood capillaries are superimposed upon them (Teichmann and Belajeff). The lymphatic system consists of vessels, both trunks and capillaries, and of collections of a peculiar kind of connective tissue, adenoid, the meshes of which are crowded with round colourless cells. When these are situated in the course of the lymphatic vessels, and are invested with a capsule, they are termed lymphatic glands, but if there is a mere reticulum enclosing the cells, and so forming a patch in the sub-mucous or sub-serous tissue, it is described as a lymph follicle. Around all such follicles

[1] Delivered before the Royal College of Physicians of London, August 18th, 1884.

[2] Broadbent. "Humphry and Turner's Journal of Anatomy and Physiology," vol. i., 1870, p. 14.

there is a large plexus of lymph capillaries.[3] The principal vessels of the lymphatic system are, in structure and general appearance, like very small and thin walled veins, and like them are provided with valves. By one extremity they commence by fine microscopic branches, the lymphatic capillaries or lymph capillaries, in the organs and tissues of nearly every part of the body, and by their other extremity they end directly or indirectly in two trunks which open into the large veins near the heart. Their contents pass only in one direction, from the finer branches to the trunk, and so to the large veins, on entering which they are mingled with the stream of blood, and form part of its constituents. The lymphatic capillaries commence most commonly either in closely-meshed networks, or in irregular lacunar spaces between the various structures of which the different organs are compounded. They are composed of a single layer of flattened cells, nearly equal in length and breadth, with a marked sinuous outline. When passing into the large lymphatic vessels they present a varicose appearance, from an incomplete valvular appearance in their interior. In the extremities, the lymphatic vessels are divided into superficial and deep. The superficial anastomose freely with one another, and so do the deep, but there is no communication between the two sets, except in the glands, which may be common to both. To this is due the remarkable circumstance that either set may be separately diseased and that superficial and deep lymphangitis may be spoken of as distinct affections, although inflammation spreads from one growth to the other. The mode of anastomosis is peculiar. A lymphatic vessel will run for a certain distance parallel to two other vessels, and then divide, it may join both of them, or one of the branches will continue onwards and the other run into an adjacent vessel. In this manner a plexus with large meshes is formed. The rapidity with which inflammation spreads from vessel to vessel is thus easily explained.

In certain parts of the body openings exist by which lymphatic capillaries directly communicate with parts hitherto supposed to be closed cavities. These openings have a roundish outline, never exceed the size of an epithelial cell, and have been termed stomata. An absorption into the lymphatic system, also, takes place in membranes by epithelium or endothelium, through the interstitial or inter-cellular cement substance, and not through the cells themselves. This mode of absorption may be said to take place through pseudo-stomata. Stomata have been found in the pleura, and as they may be presumed to exist in other serous membranes it would seem as if the serous cavities hitherto supposed closed form part of a large lymph sinus, or widening out, so to speak, of the lymph capillary system, with which they directly communicate.

The current of lymph is much aided by the valvular mechanism. All occasional pressure on the exterior of the lymphatic and lacteal vessels propels the lymph towards the heart. Muscular and other external pressure accelerates the flow of the lymph, as it does that of the blood in the veins. The actions of the muscular fibres of the small intestine, and probably the layer of organic muscle present in each interstitial villus, seem to assist in propelling the chyle. For the general propulsion of the lymph and chyle it is probable that, together with the *vis a tergo* resulting from absorption and from external pressure, some of the force may be derived from the contractility of the vessels. The respiratory movements, also, favour the current of lymph through the thoracic duct, as they do the current of blood in the thoracic veins[4].

Blood and lymph are the essential juices of the body. They stand in the closest relation to the vital processes which go on in the tissues. By means of the blood the constituent elements of the body are supplied with the nutrient substances and the oxygen which they require. By the blood and the lymph are conveyed away the waste and surplus matters which have ceased to be useful to the tissues. The nutrient substances and the oxygen are derived from without. The former usually enter the body from the alimentary canal; the latter usually through the lungs. But most parts of the body are, under certain conditions, capable of directly assimilating both nutriment and oxygen. The channels of entrance are in such cases the smaller blood-vessels and lymphatics. The matters which have to be removed from the tissues are partly surplus nutriment, partly the products of tissue waste and metabolism. These matters are carried off, either to be utilised elsewhere within the system, or to be ejected altogether. Under normal conditions, the incomings and outgoings balance each other in amount. The channels by which the normal constituents gain access to the blood and lymph may also serve to admit matters which are noxious or at least abnormal. These matters may be either wholly extraneous, or produced within the body itself, in virtue of some morbid or abnormal metabolism. The result of their admission is a more or less enduring pollution of the blood and lymph. In many cases the blood is able to eliminate them harmlessly and speedily, chiefly by means of the kidneys and the liver, but in other cases the pollution is more permanent. The composition of the blood often suffers in consequence, and its renovation may not be effected until some of the tissues or organs have been more or less injured by malnutrition.[5] The lymph is merely the liquid transuded from the blood-vessels, together with certain products of tissue metabolism and certain matters taken up by the lacteals from the outside. To this the lymphatic glands contribute a number of lymphoid elements, in addition to the few cells derived from the blood. The sources of the lymph being thus somewhat various, it may be expected that morbid changes in the composition will not be uncommon. Changes in the blood and disorders of the tissues generally give rise to changes in the lymph, and various impurities of the blood are all of them apt to pass into the lymphatic system on leaving the blood-vessels.[6]

With this narration of the anatomy and physiology of the absorbent system we are in a position to enter upon the disquisition of its pathological relations. The anomalies in the distribution of the lymph will first receive attention. Every change in the circulation, which determines an increased transudation of liquid from the blood, leads by consequence to an increased saturation of the tissues. This increased saturation is generally balanced by an increased discharge through the lymph channels. But this compensating action has its limits. If the transudation from the blood-vessels still increases, then at last comes a time when the saturation of the tissues with liquid can no longer be kept down, and so it rises above the normal degree. The condition in which fluid collects in the substance of the tissues is called œdema, when in the greater cavities of the body, hydrops or dropsy. The liquid transudation in œdema and dropsy has never the same composition as blood plasma, it is always markedly poorer in albumen. Three varieties of œdema may be distinguished, according to their mode of origin; these are the œdema of engorgement, inflammatory œdema, and hydræmic œdema.

The œdema of engorgement, as the name implies, depends upon a disturbance of the circulation. If from any cause the outflow of blood from the veins is hindered, the blood tends to accumulate in the capil-

[3] Curnow. *Lancet*, vol. i., 1879, p. 397.
[4] Kirke's "Physiology," p. 362.
[5] Ziegler, Macalister's Translation, part ii., p. 1.
[6] Ziegler, Macalister's Translation, part ii., p. 33.

laries and venules. If the degree of obstruction exceeds a certain limit, the plasma seeks a lateral exit and escapes from the vessels. The amount of liquid thus escaping is proportionate to the discrepancy existing between the inflow and the outflow. The escaped liquid is always poor in albumen, poorer even than the normal lymph. It contains, however, a certain proportion of red blood-cells, depending on the intensity of the engorgement. The immediate consequence of increased transudation is an increased flow through the lymphatics. Often enough this may be quite insufficient to convey away all the liquid which escapes. If it is insufficient, the liquid collects in the tissues, and the result is œdema, or dropsy. Obstruction to the outflow through the lymphatics does not usually bring about œdema; direct experiments have demonstrated this. In the first place, the lymphatics of most parts of the body possess ample anastomoses, so that it is not easy for a stagnation of the lymph to occur. Even when the thoracic duct is occluded, collateral channels may be opened up and the circulation restored. Furthermore, when in a limb, for example, the whole of the lymphatic outlets have been closed, if no more than the normal amount of transudation from the blood-vessels goes on, no œdema is produced. The blood-vessels themselves have the power of taking up again the lymph they have produced. If the thoracic duct be completely occluded, and no collaterals are opened up, then œdema is the result—it takes the form of ascites. At the same time, the larger lymphatics become greatly distended with accumulated lymph. Though lymphatic engorgement alone is inadequate to produce œdema, it may possibly increase an œdema which has already been produced by increased transudation from the blood-vessels. The quantity and the nature of the liquid which escapes from the capillaries and veins depend not only on the intra-vascular pressure, and the resistance of the flow, but also to a great extent on the character and conditions of the vessel wall. Alterations in the amount of transudation may thus be referable, not to disturbance of the circulation, but to changes in the vessel wall, and especially in their endothelial lining. The vessel wall may, in fact, be made more permeable for the corpuscles as well as for the liquid constituents of the blood, by various causes. One of them is long-standing engorgement, involving incomplete renewal of the blood supply to the vessel. More serious causes of injury are persistent ischæmia, imperfect oxygenation, chemical changes in the blood, very high or very low temperatures, and traumatic lesions. What the exact injuries are which these bring about we are not as yet able to say, but it may fairly be imagined that they amount to a loosening of the connections between the endothelial cells of the intima. It is in virtue of such alterations in the vessels that inflammatory and hydræmic œdema are produced.

As regards inflammatory œdema, no doubt can exist that it originates in some vascular change. It occurs as an independent affection in the form of a more or less local and circumscribed swelling with dropsical effusion; but it may also, as a secondary phenomenon, accompany other processes, like severe inflammation. In the latter case, it is often characterised as collateral œdema. Inflammatory œdema is distinguished from the œdema of engorgement by the fact that in the former the exudation is very much richer in albumen and white blood-cells. It is also common for coagulation to take place in the dropsical tissues.

Hydræmic or cachectic œdema is very near akin to inflammatory œdema. It was formerly believed that hydræmia, in which the blood is impoverished of its solid constituents, and hydræmic plethora, or over-dilution of the blood with water, might directly give rise to increased transudation from the vessels. It was conceived that the vessel wall acted like other animal membranes, through which liquids, poor in albumen, filter more readily than liquids rich in albumen. This is incorrect. Cohnheim has shown that the vessel wall is not to be regarded as a dead membrane, it is a living organ. When hydræmia is artificially produced it is not followed by œdema. Even hydræmic plethora produced by over filling of the vessels with diluted blood, though it does lead to increased transudation, does not do so till the dilution has been carried to an extreme degree. Even then, the œdema does not make its appearance at the parts which are the usual seat of hydræmic œdema in man. We must, therefore, look for another explanation of the œdema of cachexia and of nephritis, in which disease the function of the kidneys is disturbed. According to Cohnheim, they owe their origin to a change in the vessel wall. This change is due to the watery character of the blood, or to some deleterious substance circulating in it. Hydræmic œdema is near akin to inflammatory œdema, but it is not identical with it. This appears from the fact already alluded to, that the liquid effused in the former is much poorer in albumen than that in the latter, and that it contains considerably fewer of the corpuscular elements.[7]

As to the diffusion of disease by the lymphatics. The granulative formations are all distinguished by similar characters. Their development usually stops short at the fibro-blast stage, and having reached it, or even before that, the constructive process gives place to retrogressive changes. Cicatricial development being arrested, the granulation tissue persists for a time unmodified, and often develops to a considerable amount. For this reason Virchow described the formation as granulative growths or granulomata. All of these growths have furthermore the clinical character of infectiveness. Hence they have been termed infective growths by Klebs and Cohnheim, and specific inflammations by Rindfleisch. Their infective character may be recognised by various signs. Thus they are all locally invasive, that is, the granulation tissue spreads centrifugally from a centre into the surrounding structures. At the same time the central or oldest part of the new formation usually dies and disintegrates. In many cases the lymphatic system becomes affected, so that secondary granulative foci are formed in it.

From the lymphatics, the process is at times transferred to the blood, or it may invade the blood-vessels directly. The final result is the spread of the disorder to various organs, or throughout the system.

In most of the granulomatous disorders, we may have not merely a diffusion of the disease throughout the individual organism, but also a transference of it from one individual to another—the affection is inoculable. If one person be inoculated with the inflammatory products derived from another, he acquires a disease whose course is exactly similar to that of the original one, and which yields identical inflammatory products. This latter character of infectiveness is that by which it is most readily recognised.

To this group of infective granulomata belong the neoplastic formations found in tuberculosis, syphilis, leprosy, lupus, glanders, and actinomycosis. All these affections are due to the invasion of the body by a virus or poison derived from the outer world, or from the body of another individual. This virus may probably be produced by vegetable parasites. In leprosy (Hansen, Neisser), tuberculosis (Koch), and in syphilis (Klebs), bacteria have been found, and in actinomycosis, a special fungus. These are declared to be the originating causes of the respective diseases. Our ideas as to the nature and character of these affections are as yet

[7] Ziegler, Macalister's Translations, part i., p. 48.

mainly based upon their clinical course, but we have also derived something from inoculation experiments. Tuberculosis and syphilis are thus known to be communicable from one person to another, tuberculosis is also communicable from man to the lower animals.[8]

Inoculation with sputa containing bacilli of tubercle gives rise to tuberculosis, which is developed more rapidly when the bacilli are abundant. The inoculated bacillus multiplies in the organism, and invades the lymphatic system, liver, spleen, and serous membranes; by its presence it sets up a chronic inflammatory process, with the formation of products which become casefied and subsequently soften, producing gradual destruction of the organs. The bacillus is found in the centre of the tubercles in their earliest stage of formation, and hence is the cause, and not the effect, of the morbid process. The lymphatic vessels, amœboid cells, and the blood-current, are the means by which these micro-organisms are transported from one organ to another and diffused throughout the body.[9]

(To be continued.)

THE ÆTIOLOGY OF SPINAL CURVATURE.

By F. CHURCHILL, F.R.C.S.
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The influence of posture in the development of the bony framework of the body is a subject which cannot be adequately discussed when considered only in connection with regulations for school management. The causation of spinal curvature needs a much wider range of thought for its solution.

Therefore to attribute "the largest proportion of deformities and of cases of defective eyesight to the faulty attitudes induced by badly constructed seats and desks, together with want of sufficient and proper exercise, especially among girls," as Mr. Noble Smith did at the International Health Exhibition Conference, is to arrive at a conclusion without sufficient data.

The fact that girls suffer much more frequently than boys from spinal curvature is well known to surgeons who have made a special study of the diseases of children. To focus the blame for these distortions almost entirely at the door of the modern schoolmistress is to show an imperfect conception of the multiple causation of this deformity. Deportment lessons have their proper place, I consider, in every well regulated school. Rigid rules as to general deportment ought, I think, to favour spinal rigidity, rather than relaxation. The breach and not the observance of such rules must encourage awkward postural habits in young people inclined to curvature of the spine.

If we adopt Mr. Noble Smith's argument we should expect to find an increase of curvatures of spine among upper class young ladies, and especially those who go to "boarding schools." Home-taught young ladies, with plenty of sofas to lie on and other *articles de luxe*, ought to be relatively free from such deformities.

My experience tends in a precisely opposite direction, and I believe I have one of the largest surgical clinics in London for children's diseases. I prefer to discuss this question on broader principles.

I find that the children of the poor are blessed with more solid backs and larger bones. Yet these suffer far more than the elegant spider-like bodies of "the upper ten." And why? Children with broad chests have wide pelves with prominent ilia. The spine is therefore relatively at a greater distance from the iliac crest where all the burdens have to be borne, and so the lateral ligaments of the spine yield to the leverage action of the many burdens which are carried by poor children on the side opposite to the curve.

London children have not the stamina and solid framework of country lasses, and their mothers partake of the general decline in milk secretion. The "fat of the land" is not their portion.

The hygienic derangements of London slums require no comment from me as to their baneful influence upon the health of the rising generation.

The family arrangements usually provide that the elder girl, say from 7 years of age, shall "mind the baby," carry it upstairs, and take it for "an airing;" whereas cottage babies have to shift for themselves at the cottage door, or on the roadside.

There is one point of agreement between Mr. Smith and myself when he alludes to the beneficial effects of outdoor games, swimming, &c. Let the girls have as much as the boys, if they like, of sports and active exercise for all the muscles. Nevertheless the "walks in stately file," condemned by Mr. Smith, have their proper place in school hygiene, as also drilling, in moderation, to brace up the shoulders.

I prefer to combat these deformities, and to provide against them by the use of general principles of treatment so as to strengthen and consolidate the fabric of the body in its totality.

The tendency of specialists is, I think, to direct too much attention to the local disease or deformity. Let us attend, first of all, to improvement in the general health and the provision of suitable methods of school training, outdoor exercise, calisthenics, &c., so that these deformities may be avoided as far as possible.

Mr. Roman's plan for the methodical exercise on scientific principles of each group of muscles, in order to attain the highest possible development of every part in perfect harmony and symmetry, is the method which, I think, deserves to be more generally understood and accepted.

In short, the causation of spinal curvatures will, I think, be found more frequently traceable to the pernicious system of burden-bearing by young and delicate children, badly fed and improperly housed.

Curvatures of the spine in upper class society occur much less frequently, and may be traced to children having a general laxity of ligamentous structures; to infantile causes of degeneracy, as, for example, improper feeding; to scrofula, rickets, and other inherited diseases, and to parental follies, &c.

We know how extensively rachitis prevails among children living in unhealthy dwellings with everything to favour poverty of blood and defective growth. The spine quickly participates in this retarded growth. All the epiphyses and bone centres ossify very imperfectly. No wonder that the articulations yield to the superincumbent pressure. The bodies of the vertebræ, the transverse processes, and inter-articular fibro-cartilages, in consequence of undue softness and compressibility, are easily pressed out of shape, and slowly yield to the inclination from the mesial line which weight carrying is sure to produce in delicate overburdened children.

The pathology of rickets is still, I believe, a *terra incognita*. I think we must go further back for the causation than the hand-feeding and general management.

The infant betrays its proneness to rickets very early. May we not trace the cause to a marasmic condition of the mesenteric glands, whereby the chyle and products of digestion, being obstructed in their transit to the thoracic duct, fail to reach the circulation in sufficient quantity, and so the bones, which of all tissues of the body are the most removed from the centres of nutrition, have to suffer most from imperfect chylification of the pabulum of the food.

[8] Ziegler, Macalister's Translation, part i., p. 183.
[9] Sormani, *London Medical Record*, 1884, p. 53.

Or, again, may we not trace the causation to a congenital cause? For example, we know that one of the earliest signs of rickets is frontal perspirations during sleep. If we take the temperatures of such infants we often find considerable elevation of body heat. Oft-repeated febrility must favour the absorption of the earthy salts from the bones, such as we find so commonly in febrile diseases, the exanthemata, &c. The bones soften in consequence, and so become nodulated and enlarged at all the articular extremities where excessive mobility causes the cartilages to expand and become spongy in texture.

To oblige such children to carry burdens, or to toil like healthy children would be certain to cause spinal curvature and other deformities.

REMARKS ON THE TREATMENT OF CHOLERA EPIDEMICS IN INDIA.[1]

By Surgeon-General JOHN MURRAY.

In the present state of excitement and panic in France and on the Continent, and with the prospect of cholera soon appearing in England, I think it would be useful and tend to avert similar unreasonable acts, to give a short account of how cholera epidemics are treated in India, where absence of epidemic attacks is the exception to the rule in ordinary years, and where the mortality is recorded by hundreds of thousands, and in 1877 amounted to 627,579. An annual mortality exceeding 100,000 is not uncommon; but were cholera not restrained by the measures pursued by Government, it would be much greater. Panics are very dangerous in depressing the spirits of the individual, and leading in many instances to the neglect of attendance on the sick and dying, or even to the desertion of the dying and the dead. These panics arise from ignorance of the disease, combined with want of trust in the administration of the Government, and lack of faith in the executive, or doctor. The disease is very fatal, and in many instances medical aid is of no avail, especially when late in being applied; but experience shows that when applied in the earlier stages of the disease, very simple remedies will check, and generally cure, a very large proportion of the cases. It is in connection with this point that I wish particularly to call attention to the practice in India. This is not a time or place to argue on the various theories of the disease, and whether Dr. Koch's microbe is the true cholera microbe, or only one of the legion of microbes visible in cholera cultivations which further research found in many situations unconnected with cholera; nor to discuss M. Pasteur's hope of cultivating the germ, and producing a milder form of cholera, which, like vaccination in small-pox, might prove a protection from the disease. In so far as a severe attack of cholera affords no protection from subsequent attacks, it is not probable that a milder attack would be more efficacious.

There are one or two practical points which guided the measures of Government in 1861 which will elucidate the practice then enforced, and which still prevails. The first is the early recognition of the presence of the disease. Up to that date the stage of malaise was not usually recognised; whilst the second stage of diarrhœa was loudly denied by many, who stated that cholera could only be recognised when collapse and suppression of urine were present. It is my opinion that those who do not diagnose cholera till the stage of collapse has arrived, will sacrifice many sick who might have been saved. The earlier the disease is diagnosed, the simpler and milder are the remedies required to assist nature to conquer it. The medicine recommended, and generally used in India, is a mild carminative pill, which if taken needlessly will do no harm, but which if taken early has checked the disease in tens of thousands of cases. If the cholera pills are not given till collapse has supervened they are powerless as well as the strongest stimuli. I do not consider the chemical ingredients of these pills as antidotes to the poison; but they are stimulants to the stomach, whilst its sensibility, though *impaired* by the presence of the poison, is not *paralysed* as it is in collapse. The benefit of the medicine is in promoting the action of the stomach, in the secretion of the gastric juice, which is known to be the most powerful agent in destroying all the microbes, or lower vitalities, which accompany or produce putrefaction or fermentation. The excessive rapidity with which these lower vitalities increase when unrestrained, is a fact of natural history; they multiply by tens of thousands in a few hours. The stomach and intestines appear to be the primary seat of the germ, and should this view be correct it would explain the extinction of the disease in the earlier stages by the increased flow of the gastric juice caused by the carminative action of the medicine. When cholera runs its course, the inner or involuntary life becomes paralysed, whilst the outer or voluntary life continues in action, and the mind remains clear till life slowly fades away. The practice to which I allude is the general distribution over the infected country of the carminative cholera pill referred to. It is distributed through the police, with instructions for its use, and an earnest command for its early application. The success of these measures is reported by all the civil authorities as most satisfactory, while any want of success is equally attributed to delay in its use, till the disease had advanced to the stage of collapse. The treatment of the disease after this stage can only be conducted by the members of the medical profession, and successfully only by those who have assiduously studied the disease, and observed the action of the different remedies in aiding nature to overcome it.

With regard to the prophylactic treatment, the measures employed are directed to restrain the dissemination or spread of the disease from the sick to the healthy, by the isolation of the affected, and by the removal of causes, which experience has proved to facilitate its development, such as non-sanitary crowding, impure air or water, &c., &c.

I have no doubt that the disease is communicable; but the channels by and through which it is communicated are often doubtful. Our experience in India shows that personal contact is not the ordinary channel; as proved by the relative exemption of hospital attendants, and more clearly by the great proportion of villages attacked in severe epidemics in which only one death is recorded, or when only two appear; as in many instances these were two affected pilgrims or visitors. In four late epidemics (1877–8–9–80) there were 154,986 villages attacked; in 58,972 of these there was only one death, and in 20,596 only two deaths, yet in these years the total mortality was 1,380,226.

A thorough knowledge of the channels through which the disease leaves the body, as well as the channels through which it enters it, also of the changes through which it passes when outside the body, and what develops or impedes its action, and to what articles it most readily attaches itself, is essential to those who legislate for the protection of the people from this fatal disease; but these are not points suitable for discussion here even if time admitted. The practical part of the subject which I would like to allude to now, is the means employed by the Government in India

[1] Delivered at the Conference of the Epidemiological Society, at the International Health Exhibition.

for protection from the disease. For troops and prisoners, the measure that has proved most beneficial has been removal into camp, with isolation of the affected, and prompt treatment. But these measures are not applicable to the civil population of large towns, and hospitals are provided for the treatment and isolation of the sick, with proper medical attendance. Medicines are distributed all over the towns by the hands of the police, with instructions for their use, and the necessity for early application is enforced, as a delay of one or two hours in many instances involves the safety or death of the affected. Similar measures are equally applicable here should the disease reach London, and a knowledge that the authorities are prepared for its advent would ward off the panic which now spreads so rapidly in other countries.

The medicine most generally used is a compound of one part opium, two parts assafœtida, and three parts black pepper made into five grain pills.

It will generally cure, and at least it will delay the course of the disease till medical aid can be procured.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

CASE OF EMBOLISM OF THE RIGHT MIDDLE CEREBRAL ARTERY—PRODUCING LEFT HEMIPLEGIA, WITH LEFT HEMI-ANÆSTHESIA—BLINDNESS OF LEFT EYE—AND RIGHT-SIDED CONVULSIONS.

By SAMUEL WEST, M.D.

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Catherine Strong, aged 64, a poorly nourished, weakly woman, was admitted under my colleague, Mr. Mackinlay, for chronic glaucoma, for which an operation was performed by him upon the right eye on January 11th, 1884. The operation was in itself successful, and the patient seemed in her usual health, which was, however, never very good. On February 13th after dinner, at 2 p.m., the patient was seen to fall back in bed, and her face was then found to be drawn, and her left leg and arm paralysed. She never lost consciousness, but complained of pain in the right side of her head. At 5 p.m. she had a fit, during which she was unconscious, and the whole right half of the body and face twitched convulsively. The fit lasted three or four minutes.

As far as the paralysis went, it was a case of complete ordinary hemiplegia in every respect, except that the whole left half of the body, including the face, was completely anæsthetic (hemi-anæsthesia).

The tongue was protruded to the left side—but the defects in her teeth might account for this.

Both urine and fæces were passed unconsciously, although, with the exception of the time of the fit, the patient was never unconscious.

On the next day (February 14th) the patient had another fit of about three minutes' duration of exactly the same kind as the former.

The pain on the right side of her head was more severe. She complained also of acute pain in the right axilla, and in this spot some pleuritic crackling was audible.

The head and eyes were at times turned towards the right side, but this condition appeared to be variable. There was no difficulty in swallowing.

The pulse was 112, weak and occasionally intermittent, the temperature 100° in the left axilla.

She understood everything that was said to her and answered rationally.

The pain in her right side was still severe, and here some pleuritic friction was audible with crackling.

She was ordered mustard plaisters to calves of her legs, and to the right side. The diet was milk, eggs, and beef-tea, and no stimulants.

Feb. 15th.—Patient felt in less pain. There had been no more fits, and her intelligence was good as before. The pulse was irregular and feeble

Feb. 18th.—Hemi-anæsthesia absolute as before.

Feb. 20th.—The patient complained that she was quite blind of her left eye. She said that it seemed "like 10 o'clock at night" to her. The vision was, as far as could be judged, entirely lost. From the irregularity of the pupil from old mischief, nothing could be stated on this point. There appeared to be some paralysis of the external and superior recti on the paralysed side.

The vision in the right eye was very defective as a consequence of the glaucoma and operation, but no change had occurred in this since the attack.

Feb. 22nd.—The patient died of gradual exhaustion, the breath becoming very laboured and difficult towards the end of life. In other respects her condition continued unchanged.

The hearing in the two ears was unfortunately not tested, and there was no evident loss of power.

The autopsy was made fourteen hours after death.

On opening the skull the dura mater was found normal, the convolutions somewhat small, and a slight excess of sub-arachnoid fluid. Pia and arachnoid otherwise healthy. No excess of fluid in ventricles.

On the right side a focus of softening was discovered, occupying about the posterior half or two-thirds of the caudate nucleus, extending longitudinally from about the level of the anterior pillars of the fornix to that of the posterior border of the pineal gland. Anteriorly the softening was limited to the outer portion of the lenticular nucleus and adjacent portion of the external capsule, while the internal capsule here was quite intact. Posteriorly the softening was more extensive. The whole thickness of the caudate nucleus and of the lenticular nucleus was involved, and the internal capsule implicated. The optic-thalamus had completely escaped. Small ecchymoses were scattered throughout the whole softened area.

The right middle cerebral artery was plugged for about three-quarters to one inch of its extent, the plug commencing at the first division and involving both branches, but unequally. The greater number of the perforating arteries had escaped. The cyst was only slightly adherent.

The vessels at the base of the brain, as well as the walls of the plugged vessel, were quite healthy.

The left hemisphere was quite healthy.

Heart and pericardium, healthy.

Lungs, emphysematous, with considerable congestion at bases. Several infarcts, some of considerable size, existed in the base of both lungs, most numerous in the left. Clots were found in the branches of the pulmonary artery leading to these portions of lung. Liver, nutmeg. Spleen, small and firm. An infarct of recent date existed in the left kidney. The veins of the abdomen, pelvis and orbit were all healthy.

The infarcts in the different parts of the body seemed to be of the same date, and their origin and cause could not be discovered, though carefully looked for.

The sudden access, without loss of consciousness, pointed clearly to embolism as the cause; the complete hemiplegia, associated with hemi-anæsthesia, indicated with probability the vessels affected; viz., the lenticular and lenticulo-striate arteries—and this lesion the *post-mortem* established. It is interesting to note the complete loss of sight and the partial loss of power in some of the external muscles of the eye on the paralysed side, and that the blindness did not become complete until about four days after the attack.

With the hemi-anæsthesia may be associated the involuntary passage of urine and fæces as being due probably rather to the loss of sensation than to loss of power in the sphincters.

The epileptic convulsions which occurred twice, and which were limited to the non-paralysed side of the body, may be explained by the congestion of the unaffected side of the brain, due to the sudden alteration in its circulation. The first fit occurred three hours after the attack, and the second about twenty hours later, and though the patient lived for eight days longer, no further fits occurred.

Medical Times and Gazette.

SATURDAY, AUGUST 23, 1884.

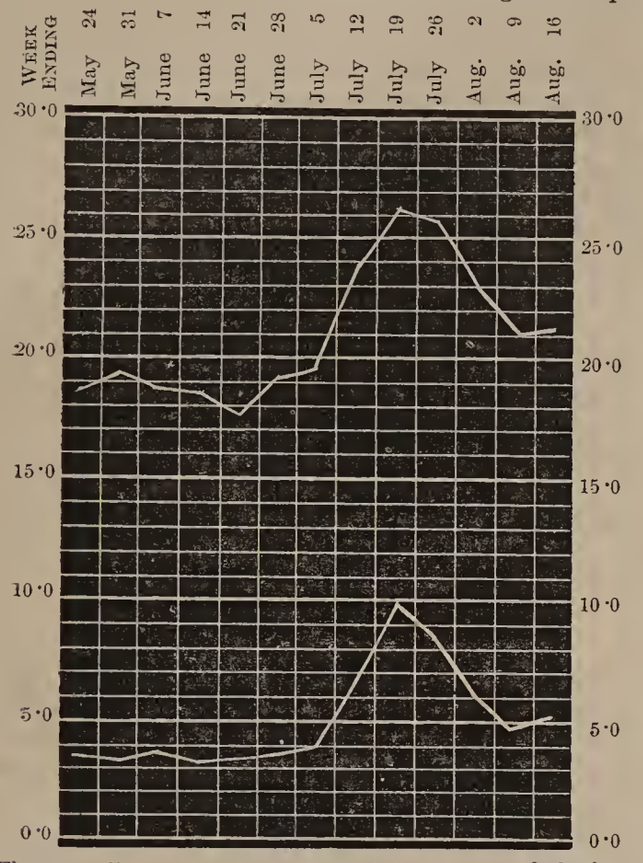
The International Medical Congress at Copenhagen broke up on Saturday last, after deciding to hold the next meeting at Washington, in 1887, in the month of September, by which month the American seat of Government begins to get habitable. It is stated that the American Committee have offered to provide a free passage to all members who are desirous of being their guests, and if this is an earnest of the scale on which the Ninth Congress is to be carried out, we may expect something which will throw the London meeting far into the shade. Believing as we do that the one danger which threatens these Congresses in the future is international rivalry in entertainment and display, we trust that the American Committee will think twice before they depart from the excellent example of simplicity without dulness, and economy without parsimoniousness, set by the Copenhagen Committee. Of the leading features of the late Congress we have said sufficient elsewhere.

The cholera—the brutto morbo, as the Italian papers are calling it—has extended considerably since our last note on the subject. The cases which have been reported at Birmingham and at Dunkirk appear not to have been cases of true cholera, though they have caused a considerable scare in their respective neighbourhoods; but there is no doubt as to the rapid extension of the epidemic in France and Italy, every day adding one or two names to the long list of infected places. The cases too appear to be of a more fatal and rapid nature than hitherto. At Puit de Bon, a little hamlet in the Yonne, of 150 inhabitants, the majority of those attacked have died after a very short illness, and at Brignolles many deaths have occurred with "terrible" rapidity. Many villages around Auxerre, which is not much more than 100 miles from Paris, are infected, but so far no undoubted case has been recorded in the French capital. At Marseilles, Toulon, Narbonne, Nimes, Avignon, Perpignan and Arles the mortality is still considerable, the condition of the last-named town being described as especially serious. The epidemic too is spreading in the Southern Provinces of Italy, and the authorities continue to establish cordons around the infected provinces. On Sunday an "imposing demonstration" took place at Palermo, with the view of pressing on the Italian Government even more rigorous sanitary measures.

By the death of Dr. Cohnheim the medical faculty of the Leipsic University has lost one of its most famous professors. Few of the great men whom the German school has produced within the last half century have been larger or more widely known than the late professor of general pathology and pathological anatomy at Leipsic. His discovery of the migration of the white blood corpuscles through the walls of capillary vessels is his chief title to fame, but in many other branches of histological study he made important researches, notably in connection with the distal terminations of nerves. M. Burq, whose death is announced from France, was a man of a different sort, an enthusiastic visionary, who spent his whole life in advocating metallotherapy, or Burquism, as the French have done him the compliment of terming it. He was of Irish descent, and his family was related to that of Edmund Burke, but he Gallicised the spelling of his name to conceal his origin. Years ago he studied mesmerism under Dr. Elliotson, but he subsequently took up with metals, and devoted the rest of his life to advocating his views as to the specific effect of their contact with the skin in cases of hysterical paralysis. Burq would have been happier had he died a few years ago, for after being long derided by the Academy of Medicine, he at length gained the ear of Charcot, and for some months nothing was heard of in the Paris hospitals but "metallotherapy." It passed, however, as rapidly into oblivion as it rose into fame; and though Burq believed in it to his death, he must many times have confessed to himself that he had had his chance and failed. Another death recorded from the Continent is that of Baron Thénard, the son of the celebrated chemist of that name, and himself a chemist of considerable renown.

The death-rate of London did not rise last week to the degree that might have been expected, considering the spell of hot weather—the mean temperature of the week was 6·4° above the average, and that on Monday the 11th as much as 14·5° above it. The effect of the heat seems indeed to have been felt more in the 27 other large towns, if one may judge by the diarrhœa statistics. In the week previous to last, 219 persons died of diarrhœa in London to 364 in the other 27 great towns; last week the numbers were respectively 242 and 547. The diarrhœa death-rate was 13·3 in Wolverhampton, 12·7 in Norwich, and 12·6 in Leicester. Turning to other of the zymotic diseases we find London comparing not so satisfactorily with the large towns. What can

be the explanation for instance of the fact that while 19 deaths occurred from diphtheria in London last week, only two occurred in all the other large towns put



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London in each of the past thirteen weeks.

together? And why did nine out of the ten deaths from smallpox that were registered last week in the 28 large towns occur in London? In spite of this fact the deaths from smallpox in the metropolis last week were for the first time for many weeks below the ten years average, and altogether the smallpox epidemic continues steadily to decline. The weekly admissions are still falling and the number of cases in hospital is not more than half what it was six weeks ago.

According to the recently published quarterly returns of the Registrar-Generals for the three Kingdoms, the *birth-rate* during the quarter ending June 30th was in England and Wales 34·2 per 1,000, or 1·6 below the average; in Scotland 35·2 or 1·1 below the average; and in Ireland 25·4 or 1·1 below the average. During the same period the *death-rate* was in England and Wales 18·9 per 1,000, or 1·5 below the average; in Scotland 19·5 or 1·66 below the average; and in Ireland 19·2 or 1·1 below the average. The *death-rate from zymotic diseases* was in England 2·13 per 1,000, or 0·25 below the average; in Scotland 4·22 (but how much below or above the average the registrar sayeth not), and in Ireland 1·5 per 1,000. In England the death-rate from each of the principal zymotic diseases, except diphtheria and smallpox, was considerably below the average; that from smallpox being exactly the average, and that from diphtheria being 0·2 above it. Similar statements cannot be made in the case of Scotland and Ireland, not because they may not be true, but because their respective Registrar-Generals do not give us the required information. It would be an advantage if these two officials, especially he of Scotland, would study and copy the admirable quarterly reports that proceed from Somerset House. It would be still better if the registration statistics of the three countries were dealt with and reported on by a single central office. It is, however, only fair to add that the Meteorological record in the Irish report could not be better done.

"What will they do with it?" must have been the cry that rose to many a pair of lips when their owners heard that the Royal College of Surgeons had been remembered in Sir Erasmus Wilson's will to the extent of 180,000*l*. The College has never received a bequest anywhere near approaching to this magnificent legacy. The largest donation it had previously received was that of 5,000*l*., bestowed on it by the same generous benefactor, who has now placed it beyond the faintest danger of bankruptcy. Next to that in amount comes the Hunterian Trust Fund of 1,684*l*., then the Bradshawe bequest of 900*l*., the Gale's Annuity Fund of 689*l*., and the Jacksonian Fund of 425*l*. We do not suppose that the Council will be in want of ideas or advisers as to what to do with their increased income. The Museum and Library will each no doubt be able to consume a good many hundreds a-year more without showing any signs of undue repletion; and perhaps it might be worth considering whether it would not be to the benefit of the College to lower the membership fee. But we shall be disappointed if something more than these minor readjustments is not forthcoming. Now is the opportunity to establish a pathological institute on a scale worthy of the scientific reputation of the English school, an institute duly supplied with professors and assistants, and all the appliances required to carry out the complicated procedures of modern pathological research. No institution in the country is better qualified to initiate and direct this advance than the College of Surgeons, with its traditional connection with John Hunter, and its great pathological museum. We should not however grudge a few thousand pounds to the Marine Biological Laboratory, which is now so nearly an accomplished fact, and the aims of which are not altogether outside of those wide views which have always actuated the College, at any rate in its management of the Museum.

In connection with the somewhat acrimonious correspondence which we publish in another column, it may be worth while to quote the latest statistics bearing on vaccination, contained in the report of the Homerton Hospitals, which has just been published. From January 1st to March 7th, 1883, during which time the smallpox patients were treated in the Fever Hospital, 62 cases were admitted; of these, 43 were vaccinated, of whom 3 died, or at the rate of 7·0 per cent.; 12 were doubtfully vaccinated, of whom 3 also died, or at the rate of 25 per cent.; and 7 were unvaccinated, of whom again 3 died, or at the rate of 42·85 per cent. From the 7th March to the end of the year, 325 patients were admitted, viz.: 237 vaccinated, 30 doubtful, and 58 unvaccinated. Amongst these 17, 5, and 25 deaths respectively occurred, or at the

respective rates of 7·02, 16·6, and 43·1. Dr. Gayton, the indefatigable superintendent of the hospital, is perfectly justified in claiming that these figures furnish "their quota of evidence in showing that epidemics of this appalling disease, which have appeared within our memory, have been mercifully stripped of the horrors of those before our time, by the immortal Jenner, to whom mankind owes so much. It is only really during the past fourteen or fifteen years that any very extended observations have been made and records kept of the value and efficiency of vaccination, and beyond doubt, as by years they accumulate, one fact will continue to stand out prominently from the rest—a fact indisputable and incontrovertible—viz., that vaccination, *successfully* and *efficiently* performed, prevents in a remarkable degree the tendency to death from smallpox; and the agitation-mongers, who go about day by day trying to stir up against it the passions and prejudices of the ignorant, are deserving of the severest condemnation."

The arrangements for the opening of the Winter Session at the Medical Schools of the Metropolis have, with one exception, been made. The Session of the London Hospital Medical School will commence on Wednesday, October 1st, when the prizes for the past session will be distributed, at 8 p.m., by the Lord Mayor. At King's College, the prizes will be distributed on the 1st October, at 4 p.m., and an address will be given by the Rev. H. Wace, D.D., the Principal. The Winter Session both at St. Bartholomew's and Guy's Hospital will commence on the 1st October, but at neither will an opening address be delivered. At St. Thomas's Hospital the Winter Session will be opened on October 1st, at 3 p.m., with an introductory address by Sir Risdon Bennett. At University College the introductory lecture will be given by Dr. W. R. Gowers, and at the Middlesex Hospital, by Dr. David W. Finlay. At St. Mary's Hospital the Winter Session will be opened with an introductory address by Dr. Lees on October 1st, and next day, at 8.30 p.m., a *conversazione* will be held in the new school buildings. The Winter Session at St. George's Hospital will commence on Wednesday, October 1st, with an introductory address by Dr. Champneys, at 4 p.m. The medical school attached to Charing Cross Hospital will be opened on the same date, without an introductory address.

The very able address of its President, Mr. John Williams, and the fact that the proceedings were not over-shadowed as usual by the British Association, have gained for the British Pharmaceutical Conference this year a greater share of public attention than it usually obtains. The remarks which Mr. Williams made on Wednesday week on the compilation of the British Pharmacopœia were perhaps not uncalled for. We are not in the secrets of the Pharmacopœia Committee, but we do not suppose that they are so inept as not to avail themselves of the best expert advice which they can command on purely pharmaceutical questions. If so, the question is one of sentiment; and no one in the medical profession, we imagine, would object to see the pharmaceutists formally represented on the Pharmacopœia Committee. The time is not perhaps yet ripe for turning over the whole volume to the chemists to let them do what they like with it, while retaining for ourselves a small codex of the score or two of drugs which are likely to retain the general confidence of the profession. But the more we advance, the less importance will attach to such subjects as those which engaged the attention of the Pharmaceutical Conference. Meanwhile, we cannot quite accept the grotesque assertion of the *Times* that the public "go to the doctor to be cured of illness, but have recourse to the chemist for preventives against ill health," a circumstance which "lends to the position of the pharmaceutist an ever swelling importance," and suggests that "the status which he may claim from his attainments should be ungrudgingly recognised." The *Times*, under its new editor, has renounced its old prejudice in favour of "chymists" and "chymistry," but there is room for improvement in logic as well as orthography.

The lecturers of the Extra-Mural School at Edinburgh have petitioned the Privy Council to allow them to incorporate themselves by Royal Charter under the Limited Liability Companies Act, taking for their style and title "Queen's College, Edinburgh." According to legal regulations the petition must lie on the table of the House of Commons for a month before being submitted to the Privy Council, and it is customary, further, to take the Lord Advocate's opinion upon it before a final decision is given. The result of the petition cannot, therefore, be known until late in the autumn. Meanwhile, all who are in favour of free trade in medical education will cordially desire that the efforts of the Extra-Academical School to place itself in a position in which it can compete on more equal terms with the University of Edinburgh may be successful. At present the school cannot hold property, or elect suitable officers to manage its affairs, or establish bursaries, or share in benefactions left to the Edinburgh School of Medicine. By obtaining the small measure of State recognition implied in incorporation by Royal Charter the Extra-Mural School will be able to increase its efficiency, and then, if the authorities of the University are wise, they will allow their students to take out a larger proportion of courses extra-academically, and so bring about that increased competition which is required to stimulate even professors to do their best.

The annual election of the Medical and Surgical Staff of the Glasgow Royal Infirmary took place on the 7th August, when the following new appointments were made:—Dr. Alexander Robertson, Physician; Dr. David N. Knox, Surgeon; Dr. James Whitson, Assistant Surgeon. The members of the staff holding appointments at the day of meeting were re-elected. From the above it will be seen that the managers have decided to give the title of Assistant Physician or Surgeon to those medical men who attend to give advice to out-door patients. Formerly there were two dispensary physicians and surgeons on duty daily, and

each of these received a salary of 50*l.* a year; in addition there were four extra dispensary physicians and surgeons, without salary, and these were called upon to act at the dispensary in the absence of the paid members. But the managers, wishing to deal equally with all those who are connected with the out-door patients, have decided that, in the place of those above mentioned, there shall be six assistant physicians and surgeons, each receiving a salary of 25*l.*, and attending the dispensary, during nine months in the year, upon three days a week. Dr. Whitson was appointed in the place of Dr. Lothian, who a few months ago was elected Surgeon to the Burn, Erysipelas and Lock Wards. The result of the election of a physician to take the place of Dr. Maclaren, who retires, has created a little surprise. There were five applicants, four of whom were members of the dispensary staff of the Royal or Western Infirmaries, had acted temporarily as physicians in the wards of these hospitals, and were confessedly qualified to discharge the duties of the vacant post, and to improve, or at least sustain the reputation of the hospital as a medical school. It was not unnatural to suppose that the choice of the managers would secure promotion to one of these gentlemen, and although Dr. Robertson, who has been for many years Medical Officer of the Poorshouse in the City Parish, Glasgow, is well known in the West of Scotland as a man of extensive experience and great ability, as well as an authority on diseases of the nervous system, it was scarcely expected, considering the claims of his opponents, that he would be so fortunate as to obtain the appointment.

The result of the election raises a very serious question as regards the future of the Royal Infirmary. The relief given to the patients attending the out-door department of hospitals is as grateful to the sufferer as that given to the in-door, the cases are similar in kind, and the work which has to be done by the medical attendant is much more laborious. Both departments must be thoroughly attended to if any hospital is to fulfil its objects—the relief of suffering and the training of future medical men—and, what is quite as important to the Royal Infirmary, gain the sympathy and support of the "masses." Until this time, medical men have been content to do the hard and often unpleasant work connected with the out-door department with either no remuneration, or with such an amount as by no means repaid them for the time devoted to the work. And they have done this in the expectation that, in course of time, they would be appointed to the in-door department with its lighter work, larger remuneration and better professional position. If, however, it is found that the higher places are conferred upon "outsiders," whether men unconnected with hospitals and students, or men connected with other hospitals, it is to be feared that the result will be that the treatment of the patients in the out-door department will be conducted by men of less standing in the profession, and that the teaching there will suffer considerable deterioration.

The Provost and Senior Fellows of Trinity College, Dublin, have conveyed to Mr. Butcher a most cordial expression of their regret at his resignation of his office of University Lecturer in Operative Surgery, and of their gratitude to him for the valuable services he rendered while in that capacity for the past sixteen years to the College and to Sir Patrick Dun's Hospital. They especially thank him for the important services rendered both to the College and to the hospital during the critical years in which the hospital was being transformed, under the School of Physic Amendment Act, from a purely medical one. There will not, we believe, be a successor appointed in Mr. Butcher's place as University Lecturer on Operative Surgery.

There are few more complicated problems, writes our Belfast correspondent, than that involved in the financing of some of our oldest and best known hospitals. It is true that it is being gradually solved in many instances by the radical changes in their constitution, whereby some are becoming provident establishments which formerly existed solely as pure charities in the strictest sense of the word. But there are many hospitals which hesitate to adopt these revolutionary changes and some of these are in a parlous state. They attract to their working boards the most philanthropic and generous members of the community, and such are apt to go on in faith increasing the usefulness and expenditure of the institutions under their charge, to meet the growing wants of rapidly increasing populations, without perhaps pausing to balance expenditure and income. Thus, the medical profession, than whom no class is more interested in the success of hospitals, periodically finds itself harassed by the threatened bankruptcy and ruin of institutions which have been the means of doing incalculable good in relieving human suffering and raising the standard of medical education. The position of one of the largest and most useful hospitals in Ireland—the Belfast Royal Hospital, is somewhat unique. It has, all told, something like 250 beds, and a large Medical School (until recently the second or third largest in the kingdom) associated with it. Its expenditure and work have gone on increasing till the annual outlay has reached nearly 9,000*l.* For a long time it had a comparatively small permanent income, the deficiency being made up by the utilization of all donations and bequests not especially bound up by conditions of investment. The authorities, however, recognising this rather precarious method of finance, and not wishing to cripple the usefulness of the hospital, set about putting its funds upon a more secure basis. In this they succeeded beyond their expectations, the yearly subscriptions and contributions from the working classes being doubled. But the unexpected, and it is to be hoped accidental, result has been that bequests and donations have so fallen off during the last two years, that the charity now finds itself, almost for the first time in its existence, in receipt of a respectable and permanent income, whilst its finances are perhaps more crippled than at any other period of

its history. In this grave condition of affairs the committee met and considered the question of closing a portion of the building, but they unanimously decided that to do so would curtail its usefulness, and in a great centre like Belfast, would inflict a hardship upon the poorer members of the population. They, therefore, resolved to go on, and admit every deserving case which presented itself. We cannot but admire their courage and enterprise, and hope they will be rewarded. Simultaneously, however, with this decision, a strenuous effort is being made to double the subscriptions and establish immediately a Hospital Saturday movement. We are glad to learn that this latter promises to be a very decided success.

Dr. J. Moore, the Senior Surgeon to the Belfast Royal Hospital, has signified that it is not his intention to offer himself for re-election, his last four years term of office having expired. Two candidates are in the field, and the staff will have good reason to be satisfied upon securing the services of either. They are Dr. T. K. Wheeler, who is at present one of the assistant surgeons, and Dr. T. Sinclair, Demonstrator of Anatomy at the Queen's College, Belfast. Both are graduates of the Royal University, and hold surgical appointments upon the staff of the Ulster Hospital for Children and Women. The contest, it is anticipated, will be a close one. Its interest is rather increased by the fact that the House Surgeon, Dr. Barron, has resigned his office with a view of becoming a candidate for the assistant surgeoncy, in case Dr. Wheeler should succeed in being elected to the staff. Dr. Barron's resignation has had the effect of calling into the field two candidates for the resident post, both being young men of some local influence; and altogether the electors will have no easy task in deciding upon the claims of so many able and willing competitors for the three vacancies. The ability and qualification of the candidates reflect credit upon the School of Medicine which never has been so active and successful as it is at present, though recent legislation has caused a feeling of insecurity and unrest which has had the effect of diminishing the number of students.

Professor Dr. Braun, of Heidelberg, has received a call to Jena as Professor of Surgery, and the Chair of Physiology at Königsberg, rendered vacant by the resignation of Professor v. Wittich, is to be filled up by Professor Hermann, of Zurich. Professor Dr. L. Mauthner is mentioned as the most likely successor to the Chair of Ophthalmology at Vienna, vacant by the death of Professor E. von Jaeger.

SCIENCE IN SCANDINAVIA.

It would be an enterprise of some difficulty, if not perhaps one of great pith and moment, to collect and classify all the many happy and unhappy similes which our writers and speakers have applied to international medical congresses, in obedience we suppose to that law which ordains that a man shall never think of one thing without immediately being driven to think of something else. It would be a still more arduous task, and one for which we do not feel ourselves competent, to excogitate a new similitude. Nor is there any need to do so, considering the wealth of comparisons at our disposal. Years ago, when international congresses were in their infancy, M. Boillaud compared them to the Olympic games, and last week M. Pasteur likened them to sign-posts pointing out to posterity the directions of scientific advance; while Prof. Panum, in his inaugural address, chose for his figure that of a concourse of ships of different nations drawn together to freely exchange their treasures. Other and lesser writers have compared these leech-motes—*Danicè* Lægemöder—to judicial assizes, to a scientific areopagus, to crusades, to ordnance surveys, to shopkeepers' stocktakings, to autumn manœuvres, to halts on the line of march arranged with the view of picking up stragglers and enjoying a little quiet refreshment, to dinner at a country-house, and to a hundred other things, according as the mind of the writer inclined to military, judicial, mercantile, social, or nondescript ideas. In our opinion, however, the best simile was that of the man who said they were like nothing else on earth—intending, we suppose, not to preclude their possible likeness to something in other spheres of existence.

The Congress which concluded its labours and its pleasures at Copenhagen on Saturday last was, according to the reports of all who were present, a remarkable success. The President claimed for it in advance that it would be a working congress—*un congrès de travail*—and the event justified his prediction, as will be seen from the brief reports of the sectional meetings which we publish in another column. But it was not less successful as a social gathering, as it could not indeed fail to be, considering the weather, the scene, and the exertions of the hosts. The hospitality of the town and citizens of Copenhagen knew no bounds. The great excursion to Elsinore, the banquet with the municipal authorities, the reception by the King, and the *fêtes* in the Tivoli Gardens, were models of organi zation, and perfect examples of thorough and not extravagant hospitality. A still more striking feature to the eyes of the average Londoner was the interest taken by the towns-people at large in the success of the Congress and the entertainment of its members. The universal tone of welcome which pervaded even the roughest of the crowds was unmistakable, and formed a pleasing contrast to the air of absolute indifference or uncomplimentary criticism with which such gatherings are apt to be regarded by the uneducated and unwashed many in our own towns. The tone of the representative newspapers in speaking of the Congress, which formed as might be expected the chief topic of the day in Copenhagen, was most eulogistic. They were also very energetic in the correct reporting of the principal meetings. The reports of the speeches, however, were not so generally useful to the members of the Congress as they might have been, owing to the fact that they were all published in Danish, instead of in the language in which they were delivered. An elaborate address of welcome which appeared on the

opening day, was, however, rendered in five distinct languages. The addresses delivered at the general meetings were not perhaps so elaborate, or so diversified as those which the London Congress had the pleasure of listening to ; but the oration of Sir William Gull, which we presented to our readers last week, and the interesting lecture of M. Pasteur, which we have re-translated not without difficulty from the Danish, and publish in the present number, are memorable, not only for their rhetorical excellence, but as furnishing important landmarks in the progress of scientific thought. They serve as apt complements to each other, dealing as they do with the two different modes of research—the experimental and the observational, the communistic and the individualistic —on which the progress of science depends. Such a research as that so tellingly described by M. Pasteur, within a few days after it had received, by an almost dramatic coincidence, its confirmation at the hands of a scientific commission, is quite beyond the scope of the mode of investigation fathered by Sir William Gull. On the other hand, even M. Pasteur, with all the help that he could command from his Government, from his able assistants, and from his own genius, would be quite unable to provide an answer to the problems with which the Collective Investigation Committee proposes to deal. The other general addresses, that of the President, in which he gave an interesting *resumé* of the history of these international congresses, and his final address on Food Rations, that of Prof. Tommasi-Crudeli on Malaria, that of Prof. Verneuil on the Neoplastic Diathesis, and that of Prof. Virchow on Metaplasia, were scarcely less important, and, together with the proceedings in the sections, will furnish material for much thought and study.

Turning from the general and international aspects of the recent Congress to one of more limited importance, it is a matter for some regret that the meeting was attended by such a comparative scarcity of the representatives of the English hospitals and schools. Of the leaders of the profession there was a brilliant series of names, which compared favourably with that presented by any of the other European nations ; but of those who are actively engaged in the teaching in the schools and in the regular work of the societies, there was a manifest deficiency. The rank and file of the profession, so to speak, who do not contribute to debate, but who, nevertheless, have their usefulness on occasions of this kind, were almost entirely absent. In the list of members who had enrolled themselves before the opening of the Congress, we find less than one hundred English names, and very many of these allowed their names alone to appear at the Congress meetings. Exclusive of the Scandinavian members, the Congress attracted thirteen hundred persons of various nations, of which scarcely one hundred were Englishmen, whilst no less than seventy found it worth their while to come from various parts of America. This absence of Englishmen was somewhat of a disappointment to the Copenhageners, who have not forgotten the Congress of 1881, and were naturally anxious that their efforts to repay the debt of hospitality should be duly appreciated by their former hosts. The audiences in the various sections, being so largely composed of members to whom the English language was unfamiliar, were on more than one occasion addressed in French or German by English speakers. Here also our countrymen did not show to the best advantage. Although, as Sir James Paget observed, we tend to become "cosmopolitan in mind," notwithstanding our insular position, by the repetition of international congresses, it can hardly be claimed for us that we are becoming cosmopolitan also in tongue. The necessity for a ready appreciation of French and German idiom was more than ever felt during the Congress, owing to the fact that the abstracts of the papers delivered were not translated, and in many instances were not even published in the language of their authors. The time will come, let us hope, when English will become the language of science, as it is becoming the language of commerce ; but meanwhile nothing is more important to the young physician and surgeon than an intimate acquaintance with those continental languages in which so much of medical interest is written and said ; and it will not be the least important result of these cosmopolitan gatherings, if they should induce the members of the profession in England to make these languages their own both in word and script.

THE BRADSHAWE LECTURE.

In his choice of a subject to fulfil the conditions imposed by the founder of this lectureship, Dr. Philipson has, to a certain extent, followed along the lines adopted by his predecessors in the chair. He decided to take a general survey of the pathological relations of the absorbent system, and not so much to give us new matter or observations as to sum up clearly our knowledge up to the present time concerning the least known and least studied system of the human body. His choice has been singularly fortunate as all will admit who read the lecture which he delivered at the College of Physicians on Monday. There can be no denying the fact that the lymphatic system is more neglected than any other in our *post-mortem* rooms. A hurried glance at the state of the mediastinal and mesenteric glands is all the attention devoted to it nine times out of ten, and we do not believe that we should exaggerate if we said that the thoracic duct is not examined and traced out in its whole length once in a hundred *post-mortem* examinations. Surely this neglect is altogether undeserved. We cannot get on without our lymphatic system, and it is quite time that it should receive its fair share of attention. Dr. Philipson has done his best to remove this reproach, and to arouse our interest in this fertile though somewhat unknown field. It cannot be regarded as other than a most happy coincidence that we should have this able exposition of the pathology of the lymphatic system brought before us at a moment when the brilliant address on the same subject from the physiologist's standpoint, by Professor Redfern, is still fresh in our memories.

The lacteals and the lymphatics are constantly engaged in providing the blood with fresh material partly derived from the air, partly from the food ; and

in this respect they may be considered as supplementary to the blood vascular system. We need not follow the learned lecturer in his description of the anatomy of the absorbents further than to remind our readers that in the extremities the deep and superficial lymphatics communicate only in the glands, and that the pleuræ, peritonæum and pericardium are not closed cavities but huge lymph sacs communicating with the lymphatic capillaries by means of stomata. From the point of view of the pathologist these have a great interest from the active share they probably take in the re-absorption of inflammatory products that may have been thrown out into the pleura or peritonæum, by making a way for these to escape into the lymph-channels, in their course along which they are much assisted by the respiratory movements, and especially by what Professor Redfern calls the pump-like action of the diaphragm.

Passing then to the pathological aspect, the first point considered was the mode of causation of œdema. Three varieties of œdema were to be recognised, viz. : the œdema of engorgement, inflammatory œdema and cachectic œdema. The first variety was the result of impeded circulation through the veins. When this occurred, at first there would simply be an increased flow through the lymphatics, and it was only when this became inadequate to carry off the extra quantity of fluid that œdema would appear. This view raises some nice points in reference to treatment, which we can hardly touch upon here ; it would render it probable that the old-fashioned treatment of dropsy by purgation was not successful simply by its mechanical action, but that the intestinal irritation thereby induced stimulated the lymphatics in the abdomen to renewed exertions, and that they in their turn demanded more work of those in the extremities. Lymphatic engorgement alone would not as a rule produce œdema, even when the thoracic duct itself was occluded. This was owing to the completeness of the deep anastomoses. Further, it was pointed out that when the lymphatic obstruction was complete, œdema was not a necessary consequence, as the blood vessels were able to take up a certain quantity of the transuded fluid again. Inflammatory œdema, the second variety, differed from the above chiefly in the fact that the fluid was much more rich in albumen and white corpuscles. It originated in some vascular change. The third variety or cachectic œdema included the dropsy seen in Bright's disease. In this case, too, there was probably some change in the walls of the blood vessels due to the action of the impoverished blood upon them. The fluid was poorer in albumen and solids than in the inflammatory variety.

After referring to the part played by the lymphatics in the diffusion of disease, the lecturer passed on to the consideration of certain diseased conditions of the lymphatics. Dilatation, he pointed out, might vary in degree from a simple dilatation of the capillaries to a well-marked lymphangioma. The causes of this condition were numerous; sometimes it was congenital, at others it followed upon inflammation, at others it was attributed to hypertrophy of lymphatics or plexuses, or paralysis of the coats of the vessels. External pressure too was a probable cause. Dilatation of the lymphatics was more common in warm and moist climates. One cause of this condition in tropical climates has been demonstrated beyond all possibility of doubt by the labours of Manson chiefly, and that is the plugging of the lymphatics by the aborted ova of the filaria sanguinis hominis. Whether other causes for its greater prevalence in these regions will hereafter be discovered, it is impossible to say. But it is probable that a larger number of such cases than has hitherto been believed will be found to be of this parasitic nature, when the method of recognising the disease, *i.e.*, the examination of the blood at night, becomes more generally known.

Lymphatic nævi, it was pointed out, were probably much more common than was generally supposed, and played the chief part in the causation of the hypertrophy of elephantiasis. Obstruction of the thoracic duct itself might be due to coagulation of lymph within, or to pressure from without by enlarged glands or aneurysm ; disease of the valves was also said to be a cause. Complete obstruction was a serious affection, being almost infallibly followed by emaciation and anæmia. If the obstruction remained unrelieved, some of the smaller vessels might burst from over-distension, either externally, or into the urinary tract or rectum, or into the peritonæum, as actually happened in the remarkable and interesting case brought before the British Medical Association at Belfast.

Inflammation of the lymphatic system was considered under the heads of lymphangitis, or inflammation of the vessels, and adenitis or inflammation of the glands, the two being often co-existent. The readiness with which the lymphatics in the neighbourhood sympathise with a wounded or inflamed part is so well known that we need not dwell further on this part of the address. Enlargement of the glands was of three kinds, simple hypertrophy or lymphoma, scrofulous enlargement and lymphadenoma. In a true lymphoma there was an increase in the lymphoid cells in a lymphatic gland with an overgrowth of its normal reticulum. Scrofulous enlargement usually commenced in a single gland and then spread to others in the immediate neighbourhood. At first there appeared to be an ordinary hyperplasia, but after a time the gland became opaque, yellow and caseous, breaking down in the centre. But though often followed by tubercle, scrofulous glands were not to be regarded as tubercular, they often developed in persons in the best of health. Tubercular inflammation was to be distinguished by the development of tubercles in the lymphatics as well as in the glands, and by the surrounding inflammation which was always present. We feel somewhat doubtful as to whether this distinction between scrofulous and tubercular disease of the lymphatic glands will be able to bear investigation. If it should ultimately appear that there is a group of cases in which glands become caseous without ever containing tubercle bacilli, then the distinction will be established. We do not think that has been done yet, and we doubt whether it ever will be. Lymphadenoma, the third variety of enlargement, was the last subject dealt with; its ætiology has still to be fathomed, though several causes were mentioned as contributing to its development.

THE INTERNATIONAL MEDICAL CONGRESS.

The work of the Congress began in earnest on Monday, August 11th, most of the sections being constituted within a few minutes of the appointed time. The attendance in every one was good, and in some it rather exceeded the accommodation. As in former Congresses, it was evident that the Surgical Section was by far the most popular, and indeed the presence of so many distinguished leaders in that branch of the profession was a sufficient explanation. Medicine, Pathology, Ophthalmology, and Gynæcology were also very largely attended. The office of President in the respective sections was filled by different persons at each sitting, these being selected, where possible, from the list of the honorary presidents appointed at the inaugural meeting on August 10th. The list includes, as the representatives of England, the names of Paget, Gull, MacCormac, Acland, Bennett, Lister, Spencer Wells, Erichson, Watson, and Marshall. Many points of difference are to be observed in the method of conducting the meetings, from the system in vogue in our own societies. One of the chief of these is the custom which prevails of allowing each author to reply at once to his critics instead of dealing with their criticisms in a single speech at the close of the debate. A good deal of wasted time is a natural result of this arrangement.

SECOND GENERAL MEETING.

Monday, August 11th.

M. Pasteur on Vaccination for Rabies.

The general meetings were held in the great hall of the University, a building admirably adapted for the purpose. It is a magnificent chamber, oblong in shape, and half-panelled throughout with carved cedar. Above the panellings are a series of wall paintings representing scenes in the history of Denmark. For the occasion of the Congress numerous trophies of the flags of all nations were displayed at either end of the hall. The tribune, from which the speeches were delivered, was placed in the middle of the one side of the oblong, immediately opposite the Rectorial Chair upon the other, over which floated the gorgeous white and gold banner of the University. Long before the hour fixed for the delivery of M. Pasteur's address, the whole of the available space in the hall and every point in the narrow gallery which runs just underneath the roof was densely crowded with an audience, including very many ladies, and nearly all the representative men whose faces are now familiar to members of the present and former Congresses. The chief points in the speech, which we publish in full in the present issue, have been already made known, and the words of the President, M. Bouchard, in which he referred to M. Pasteur's work as deserving "the gratitude of the people and the respectful admiration of all men of science," have been fully endorsed by all who are in a position to appreciate their truth.

THIRD GENERAL MEETING.

Tuesday, August 12th.

Addresses by Prof. Tommasi-Crudeli on Malaria, and by Prof. Verneuil on the Neoplastic Diathesis.

This general meeting, which was held under the presidency of Sir William Gull, was not by any means so largely attended as that of the previous day, when M. Pasteur's address was delivered. A fairly large audience, however, including many ladies, assembled to hear Professor Tommasi-Crudeli's address on the natural production of malaria, and the sanitation of malarial districts. His speech, delivered in the French language, dealt with the history of malarial affections, and especially with the popular views of the disease and its treatment, which have so largely influenced scientific men in combating it. He detailed his own views as to the conditions which combine to give rise to it in Italy, and especially in the city and neighbourhood of Rome. Whilst recognising the beneficial action of the planting of the eucalyptus in districts only slightly affected with malaria, he believed that effective drainage of marshy districts would afford the most real immunity. He advocated somewhat strongly the prophylactic virtues of arsenic in warding off attacks of malarial fever in individuals, giving it a decided preference in that respect over quinine.

A very long and positive address from M. Verneuil, of Paris, was next delivered, on the subject of the Neoplastic Diathesis. The subject, vague and indefinite in itself, was rendered by no means clearer by the numerous digressions in which the author indulged whilst reading his paper. His chief contention, not by any means new to the profession, was to the effect that a special diathesis is present in all persons affected with any form of new growth, whether it be a simple papilloma, or the most malignant cancer. This diathesis is hereditary, and renders its victims at any time liable to any and every form of neoplasm.

In proposing a vote of thanks to the two speakers, Sir W. Gull took occasion to point out the indefinite character of such speculations as these, although fully recognising the ability which had been brought to bear upon them.

A formal invitation was then presented by Dr. Billings, of Washington, on behalf of his American colleagues, offering to hold the next International Congress in the city of Washington, in September, 1887, and promising a cordial welcome to all who should accept it. At the request of the fifty-five American members of the Congress, he added, in support of the formal invitation which had been given to the Secretary-General in May last, a few words to show that it was something more than a mere formal invitation. At the commencement of this series of international gatherings, he said, the physicians of America had not as a body taken an active interest in their proceedings. Some Americans were always present, and their number steadily increased, until at the last two Congresses they had a fairly large representation. They had their own work and their own problems, which in sociology were somewhat apart from those of Europe; but in medicine, as in other sciences, the problems of the individual were those of humanity at large. It might adopt the motto of the "Three Guardsmen"—"all for one and one for all." Realising this more and more every year, the desire was now widespread among American physicians that one of these great reunions should be held in their own country, to which the wise men of the East should come, that they might be seen face to face. This invitation had not been decided upon without due consideration of the important responsibilities which it involved, and of the possibility of providing for the Congress a suitable reception. There was, he said, with a touch of American humour, a significant proverb, well known in their newspaper offices, to the effect that many fortunes had been lost in the attempt to conduct a daily paper in a weekly town. But they now felt old enough and strong enough to take care of their friends, if they would come to them. The reply to this invitation was reserved, to allow of further discussion of

the question, very many members, and especially those from Germany, desiring to hold the Congress in some European city.

WEDNESDAY, AUGUST 13TH.

Excursion to Elsinore.

To those members who had been diligently attending the meetings of the Congress, the programme issued on Wednesday morning was not unwelcome. It was short and to the point:—"Pas de Seances dans les Sections; Excursion à Elseneur et Kronborg." Accordingly, at ten in the morning, the docks, in which all the ships were gaily dressed with bunting, were crowded with members and the ladies who accompanied them. Six well-fitted and commodious steamers, generously provided by the General Steam Navigation Company of Denmark, awaited them. A pleasant passage of two hours' duration, under a bright sunny sky and over a smooth sea, brought them to their destination. On landing, the stewards conducted their guests to the old castle of Kronborg, situated in the narrowest part of the Sound, and commanding a magnificent view of the surrounding country and the opposite coast of Sweden. A lunch, sumptuous enough to satisfy the most fastidious, was served in the castle, and the two or three thousand persons who were present were regaled right royally. The afternoon was spent in listening to the band and exploring the rooms, towers and dungeons of the fortress. The party, who expressed general satisfaction with the arrangements, and astonishment at their completeness, was conveyed back to Copenhagen in three special steamers chartered for their accommodation.

FOURTH GENERAL MEETING.

THURSDAY, AUGUST 14TH.

Sir William Gull's address on International Collective Investigation.

There was a large attendance to hear Sir William Gull deliver his address on the International Collective Investigation of Disease, which we had the privilege of publishing in full in our last issue. At the close of the address a committee was appointed to carry out the scheme, the English members being Sir W. Gull, Dr. Humphry, Dr. Mahomed and Dr. Isambard Owen.

The Municipal Banquet and Fête.

The day's programme on Thursday was agreeably brought to a close by an entertainment offered by the town of Copenhagen to the foreign members of the Congress, in the shape of a banquet, concluding with a fête in the Tivoli Gardens, the Champs Elysées of Copenhagen. For the accommodation of the 1,300 guests (exclusive of Scandinavians), an immense area by the side of the harbour had been converted into a dining hall during the few previous days. Built entirely of wood and glass, and with a ceiling formed by broad festoons of canvas; this gigantic apartment contained forty-one tables, each seating thirty guests, exclusive of three large tables placed upon a central dais, and reserved for the leaders of sections and others more or less distinguished in medicine and surgery. According to the national custom the toasts and speeches were introduced between the courses of the banquet, and were interspersed with vocal and instrumental music. A novel feature, to Englishmen at least, was the singing in unison by the whole of the assembled guests of a series of laudatory songs composed expressly for the occasion. The simplicity of the melodies and the easy rhythm of the words enabled everyone to join with a vigour worthy of the occasion. Complimentary speeches were delivered in abundance, Sir James Paget amongst others delivering a hearty eulogium on the hospitality and also on the hygienic excellence of the town of Copenhagen. At the close of the banquet the whole company adjourned on board three large steamers, drawn up to the adjacent quay to receive them, and from thence, amid the most hearty cheering from the thousands of the townsfolk assembled along the whole route, were slowly conveyed to a landing place near to the Tivoli Gardens.

The latter, which constitute the great centre of amusement for all parts of the city, and include concert and ball-rooms, theatres, restaurants, and every kind of entertainment, were brilliantly illuminated for the occasion and thronged with a vast crowd, estimated at 30,000 persons. A brilliant display of fireworks brought the whole entertainment to a close about 11 o'clock. Too great praise can hardly be awarded to the absolute perfection of the organisation employed in this great undertaking. Marked throughout by the most thorough attention to the little details which make or mar the pleasure of those who take part in it, the whole affair was triumphantly successful from the beginning to the end. The Danish gentlemen present did everything in their power to make the occasion memorable to their foreign guests, and their efforts were in this respect successful in the highest degree.

FIFTH GENERAL MEETING.

FRIDAY, AUGUST 15TH.

Prof. Virchow's Address on Metaplasia.

A large audience assembled to hear Professor VIRCHOW'S address on Metaplasia. Professor Semmola, of Naples, occupied the chair. The following is a short abstract of the speech, which occupied rather over an hour in delivery. After referring to the early views with respect to the processes of life, which prevailed at the beginning of the present century, and to Schwann's famous theory of the formation of cells by crystallisation, Professor Virchow observed that the doctrine of the formation of tissues, which came originally from England through the teachings of Hewson and John Hunter, maintained their origin from plastic lymph. This view would not have received much attention had it not been followed by Schulze's doctrine that formation of tissues and their subsequent nourishment were alike to be attributed to the "intercellular humour," or plasma, of the blood. This view gave rise to the belief that the healing art consisted in the maintenance of this nourishment. About thirty years ago, Virchow himself made the first step towards the "cellular pathology" by originating the phrase "Omnis cellula e cellulâ," an idea which was in strong contrast to the doctrine of cell formation from plastic material. He explained how the object of nourishment was to keep the cell alive, and how the process of growth consisted in the formation of cells from previously existing cells. The two processes of formation and nourishment were thus distinct. All organic processes took place inside the cells and never outside them. He then defined automatic nourishment and that change of matter which he called transit-change, which consisted essentially in the taking up and giving off of nutritive matter by certain parts of the body, without employing the matter so taken up for their own nutrition. Having thus separated nourishment and formation from one another, he proceeded to speak of the processes of growth, and especially of the production of new tissue

forms, to which he gave the name of Metaplasia. He showed how this metaplasia was the foundation of important pathological processes, and one of the pre-suppositions of the Darwinian theory. Taking bone as an illustration, he referred to the numerous theories of its formation, and explained the formation of marrow, which he defined as a tissue of changing forms, and therefore an excellent instance of metaplasia. He followed the processes of new tissue formation through many of the different kinds of tumour, and made especial reference to the pathological phenomena of myxœdema. With respect to the white corpuscles of the blood and the possibility of their metaplasia, he was inclined to believe that there was a definite limit fixed beyond which it did not go.

At the close of his address a cordial vote of thanks was offered to Professor Virchow, on the motion of Professor Semmola.

The Supper at the Christiansborg Palace.

The announcement by His Majesty the King of Denmark, of his intention of entertaining the members of the Congress at the Palace, was received on Wednesday, the 13th, with the greatest satisfaction, as a further evidence, if any were wanting, of the cordial recognition of the value and importance of this great international gathering which pervades all classes in Copenhagen. In obedience to the Royal command, the members began to assemble at the Christiansborg Palace punctually at the appointed hour. The long series of saloons, opening out of one another, which constitute the whole front of the building, so well known to English tourists, were speedily thronged with an immense assembly of guests, probably including in their number a good many who would have found some difficulty in substantiating their claim for admission. Very few, however, of the genuine members of the Congress were absent. After about an hour spent by the members in general conversation and the observation of the historical and legendary paintings with which many of the saloons are decorated, the King and Queen of Denmark, the King and Queen of Greece, the Crown Prince and several junior Members of the Royal Family, entered the principal room and conversed freely with all those members who were able to push themselves forward in the crowd of aspirants for this mark of the Royal favour. A general adjournment then took place to another series of rooms, in which a most lavish display of the good cheer of Denmark was prepared, to meet the vigorous onslaught which was subsequently made upon it. At a table at the head of the beautiful White Hall, in which also were tables for the less exalted members of the Congress, the Royal hosts entertained the principal leaders who had taken part in the week's work. In a short and clearly delivered speech in French, the King of Denmark offered a welcome to the foreign members present, expressing at the same time his sense of the value of the Congress in the interests of the medical sciences, and his gratification at the selection of the city of Copenhagen as its place of meeting. To Sir William Gull was entrusted the honour of replying to this toast, which he did very briefly in English. His call for cheers for the King and Queen was most vigorously responded to.

SIXTH GENERAL MEETING.

SATURDAY, AUGUST 16TH.

Prof. Panum's Address on Food Rations.

The final general meeting of the Congress was held under the Presidency of Professor His. An address was delivered, in French, by Professor PANUM, on the food rations for men in a state of health and disease, especially in hospitals, infirmaries and prisons of different countries, in which he dwelt upon the necessity which exists for a better understanding of the chemical composition and physiological action of the food in daily use in various countries. He gave an elaborate account of his investigations into the subject of his paper and suggested that efforts should be made by members of the Congress to secure for themselves and their patients some more accurate knowledge of the nature and actions of food, not only for hospital use, but also for the exigencies of private practice. He did not believe that any good could come of an International Cookery Book, on the model of a pharmacopœia, but thought that physicians of all nations might work together, after the manner of the Collective Investigation Committee, with a view to obtaining a common method of procedure with respect to the ordering and use of food. He would further advocate the employment of definite tables indicating the composition of all ordinary forms of food, which should be suspended on the wall of every consulting room. Special attention ought also to be paid to the instruction of the poor in the use and abuse of food.

At the close of the address, Professor His resigned the chair to Professor Panum, and offered the thanks of the Congress to him for his address. He also read the report of the Committee which had been appointed to decide upon the place of meeting for the Congress of 1887. Three cities had given invitations, viz., Berlin, Rome, and Washington, and the reasons for and against the choice of these were entered into at some length. It had been decided to accept the Washington invitation, but the question remained for final settlement by the vote of the members present.

The question of acceptance of the invitation was then put from the chair by Professor Panum. A large majority voted in favour of the proposition, and it was finally settled that the International Medical Congress of 1887 shall be held in Washington.

Dr. BILLINGS, on behalf of his American colleagues, thanked the members for the honour of their choice, and promised that all those present who should take the trouble to cross the Atlantic in 1887 should be enabled to see something of American cities, American institutions, and American hospitality. He could not sufficiently express his sense of the extreme hospitality, or his admiration of the perfect organisation which had rendered the present Congress so thoroughly successful. He knew that too much popularity was apt to render a gathering such as this forgetful of its business, but he was convinced that a vast amount of valuable work had resulted from the steady and industrious labours of the sections.

Professor ROSSANDER, speaking on behalf of the non-Danish Scandinavian members, returned thanks, in a vigorous speech, to the Danish authorities, to whose exertions the success of the Congress was entirely due.

Sir RISDON BENNETT expressed the feelings of all the British members of the Congress in making a hearty acknowledgment of the unbounded hospitality and the brilliant entertainments provided for their guests by the Danish Executive. The resources of London, great as they were, could hardly exceed in their results the magnificent reception which had been accorded in Copenhagen.

Professor VIRCHOW, speaking in French, proposed that the thanks of the Congress be offered to His Majesty the King of Denmark, to the Municipal Authorities of the town of Copenhagen, and lastly to the President, Professor Panum.

All these propositions were received with the utmost enthusiasm.

Professor PANUM, in reply, disclaimed any praise for himself, and paid a high compliment to the other working members of the Committees, and especially to the Secretary-General, Dr. C. Lange, the mention of whose name was received with prolonged cheering. In bidding farewell to the members, he expressed the hope of meeting them in equal numbers at Washington in 1887:—"The work of our present sitting is now concluded. *Messieurs, Adieu! Au revoir!*"

MEETINGS OF THE SECTIONS.

I. & II. SECTIONS OF ANATOMY AND PHYSIOLOGY.

ON Monday in the Anatomical Section papers on the Rotation of the Arm were read by Messrs. Morris, of London, and Hejberg, of Christiania; and in the Physiological Section, a long paper on the part played by the "fugitive corpuscles of the blood" in the formation of fibrin and in coagulation, and on the relation which the "Hæmatoblasts" of Hayem and the "Piastrines" of Bizzozero hold to the "fugitive discs of the blood," was communicated by Professor Norris, of Birmingham.

On Tuesday, August 12th, the Anatomical and Physiological Sections held a combined sitting for the reception of a paper by Professor VON EBNER, on the histology of striated muscle with demonstrations by Professors Engelmann, Merkel, and Retzius. Professor Kronecker described the approximate position of the centre of co-ordination for the movements of the ventricles of the heart of the dog, about one centimetre behind the descending branch of the left coronary artery. Injury to this centre stopped pulsation at once, irregular vibrations and twitchings alone remaining. By a series of experiments Professor Kronecker has ascertained that this centre is neither inhibitory nor motor, but distinctly co-ordinating.

Dr. GASKELL of Cambridge, read a paper on inhibitory actions and the inhibitory nerves in general. After referring in detail to the present views on inhibitory and exeitor impulses in single nerve trunks, and to Foster's experiments on direct inhibition of cardiac muscle of snail, Dr. Gaskell described experiments on portions of tortoise cardiac muscle, upon crocodiles in which the vagi had been mutilated so as to ensure complete degeneration of their cardiac periphery, and upon the cardiac nerves of frogs, in which the vagus and sympathetic rami were completely isolated. Some recent experiments in the Cambridge Laboratory were also quoted as entirely disposing of Foster's experiments upon the snail's heart. Dr. Gaskell's experiments, the records of which were exhibited in the shape of most complete polygraphic tracings, led him conclusively to state that muscle functions are not inhibited except through nerve stimuli. As to the condition of inhibited tissues or organs, whether the state is one of death or increased potential energy, he showed tracings of cardiac contractions during stimulation of the sympathetic after or during stimulations of the vagus, which emphatically supported the latter view.

III. SECTION OF GENERAL PATHOLOGY AND PATHOLOGICAL ANATOMY.

(A report of Monday's proceedings in this section appeared in our last issue.)

Tuberculosis.

TUESDAY, August 12th, was occupied throughout the day with the consideration of papers dealing with the subject of tuberculosis. A paper was read by Professor CHAUVEAU, of Lyons, on the importance which must be attached to the tubercular affections of domestic animals, in respect of the possibility of tubercular infection from them to human beings. Tuberculosis of the cow udder was described by Professor BAUG, of Copenhagen. It consists essentially in the development of a diffused, painless swelling, generally limited to one quarter of the udder, hard in consistence, and exuding a milky secretion. The quantity of milk secreted by the affected part of the udder is generally, but not always, diminished. The general health of the animal is but little affected. The milk from the affected udder invariably contained tubercle bacilli, which could be somewhat separated with the cream by centrifugal separators, but which, nevertheless, remained in large numbers in the milk. Even the milk from the unaffected parts was sufficient to set up tuberculosis in rabbits.

An interesting paper by M. GRAUCHER, of Paris, giving a history of the theories and discussions with respect to the identity or distinction of scrofula and tuberculosis, and relating the results of a series of inoculation experiments, left the question still as unsettled as before, although Professor Graucher himself took the view that tubercle may exist in a variety of degrees of virulence, and would regard the scrofulous secretions as simply an attenuated form of tubercle. Professor WEIGERT, of Leipzig, on the other hand, maintained that the virulence of tuberculosis is directly dependent upon its localisation. He instanced the lymphatic swellings of children as proving the fact that where the morbific material remains firmly encapsuled it also remains inert and local, but that the spread of the disease so common in children is due to the material getting into the lungs, where, from the anatomical peculiarities of the tissue, it is rapidly spread over the whole organism.

During the sitting of the section under the presidency of one of the committee, a diversion was caused by the entrance of M. Pasteur, who, amid general applause, was called to the chair for the rest of the sitting.

Chronic Nephritis.

IN the meeting of this section, on August 14th, M. CORNIL, of Paris, read a paper on the Relation between the Changes of Connective Tissue, Parenchyma, Blood Vessels, and Heart in Chronic Nephritis. He was followed by Sir W. GULL, who, reserving the full text of his paper for publication in the "Transactions," presented an abstract in French of the principal points contained in it, supplementing the statements with comments in English. He insisted very decisively on the universality of the changes which he has described, and called especial attention to the alterations which take place in the interstitial circulation in addition to those more easily recognised in the capillary vessels themselves. His remarks were confined to a form of so-called nephritis with contracted kidney and cardiac hypertrophy, occurring at or after the middle period of life. This affection had been termed Bright's contracted kidney in the third stage, granular kidney, cirrhotic kidney, the kidney of interstitial nephritis, but these terms were open to objection. Bright's investigations had no relation to one particular form of disease of the kidney. They included every form of renal change, associated only by albuminous urine during life. The persistence of the term Bright's kidney was due to the idea that renal lesions were always of one form and character, had a local origin, and were the source of the systemic lesions which were associated with them; and in a vague way, that albuminuria indicated one pathology. Similarity of morbid histological forms was, however, no criterion of pathology. Granulation and contraction might have various meanings. Criticism of differences required wider survey, including morbific cause, clinical history, and tissue changes in other organs. Morbid histological forms were limited in expression, however originated. Whilst fully acknowledging re-active effects of renal lesions on the organism, he held that such admissions did not close the chapter of renal pathology. There was an arterio-capillary fibrosis which might begin in any part of the vascular area, after the middle period of life. The kidney textures were not necessarily first affected in this change; though from their vascular supply they were apt to be first affected. Cardiac hypertrophy might precede defect of renal function, and arterio-capillary fibrosis, with cardiac hypertrophy, might begin whilst the urine was quite healthy. In this cachexia the intima and adventitia of the arterioles and capillaries were changed by fibroid, or hyalin fibroid, deposit. The muscular coat was thickened, and the muscle-cells mostly degenerated. Death might occur from cerebral hæmorrhage (ingraveseent apoplexy), with cardiac hypertrophy; whilst after death the kidneys might be found but little

affected. The fibroid change in the kidney here treated of had no acute beginning, no stage which could be called inflammatory. Its early stage coincided with vascular changes in other organs, causing a train of symptoms not yet referred to a recognised pathological basis. Intercurrent inflammation in organs was common in this state of the vessels. If albumen happened to be present in urine, investigation had hitherto been closed. Independent pathologists agreed that the renal fibrosis was not the result of acute inflammation; and one stated that this condition was due to a chronic atrophy, the primary change being a peri- and endo-arterial fibrous thickening; another, still maintaining the inflammatory character, regarded the process as of an essentially chronic nature, partaking more of the character of growth than inflammation. The description of the changes in the renal vessels and textures in this state, given by independent observers, entirely accorded with what he had described as occurring in other organs; as, for instance, in sections of the cord, in arterio-capillary fibrosis either with or without renal disease, and the same occurred in other organs, lungs, stomach, skin, &c., proving that the renal change had common characters with those more widespread through the organism. The heart was liable to these degenerative changes; but death usually occurred before they were much advanced in it. The hypertrophy was referable to loss of arterio-capillary elasticity, and hindrance to circulation of plasma through the tissues (interstitial circulation). Whilst in the cases in question the arterio-capillary changes could not be referred to the kidney as their source, it still remained to be determined how far a change, beginning in the kidneys, might promote a cachexia, inducing arterio-capillary fibrosis. This arterio-capillary change was entirely absent in a large class of renal diseases, though occurring at an earlier period of life; and might be of long duration. Defective renal function would seem to have a weakening influence on the circulation, and to produce anæmia as well as uræmia. Many changes in the functions of organs in renal disease, hitherto considered due to uræmia, were more truly referable to arterio-capillary changes.

Dr. Mahomed observed that we appeared to have arrived at this position, that Bright's disease consisted of two factors, the nephritic and the cardio-vascular. Professor Cornil and Sir W. Gull both recognised these factors, but regarded them from different standpoints, the former maintaining that the nephritis was the primary condition, whilst the latter believed that the general cardio-vascular change might in many cases precede the kidney affections. Dr. Mahomed would go farther than this, and say that the disease commenced either in the blood vessels, or in the tissues along the line of the interstitial circulation. Increased arterial pressure was the first indication of this condition, and was a purely functional change in the first instance, due, as in scarlatina, to the circulation of morbific material. It might come and go in the course of twenty-four hours. The whole process of stasis and delayed circulation of blood cells might be easily observed in the frog's foot. With the persistence of the increased arterial pressure and delayed interstitial changes, the characteristic nephritic symptoms might be induced. In certain forms of acute kidney mischief, a nephritis might come and go without any general systemic changes either preceding or following it.

On August 15th, Professor Heller, of Kiel, read a paper on congenital syphilis of the lungs, which he considered to be a somewhat neglected subject. He characterised syphilis of the lung as one of the commonest changes, whether occurring alone or in combination with other syphilitic affections, and above all as the direct or indirect cause of death in all syphilitic children. He brought forward these data on the strength of a very large series of pathological observations. His remarks were not challenged in debate.

Professor Langalli, of Pavia, read a long communication upon the succession of pathological tissues, and especially of the relation of fibrous tumours of those sarcomatous or carcinomatous nature, a subject which Professor Virchow, in complimenting Professor Langalli, characterised as one of the most difficult and complicated with which pathologists have to deal. The paper was not discussed. During the sitting of the section the news of the death of Professor Cohnheim was received, and a vote of condolence to his family was proposed from the chair by Professor Virchow.

IV. Section of Medicine.

The first sitting of the Medical Section, on August 11th, opened with a few introductory remarks from Professor Trier, who briefly reviewed the forthcoming work of the section, and regretting the absence of Professor Grainger Stewart, nominated several honorary presidents, amongst whom were Sir Risdon Bennett and Sir Henry Acland, as the representatives of England. Dr. Isambard Owen was also nominated as English Secretary for the Section.

Sir Risdon Bennett then took the chair, and called upon Dr. S. Laache, of Christiania, to read a paper on the value of recent researches on blood corpuscles for the pathology of anæmic and leukæmic diseases, the greater part of which is contained in his recently published work on the subject. The relative number and hæmoglobin contents of the red corpuscles in the respective diseases and the variations to which they are liable, formed the chief substance of his paper.

Drs. Paul Guttmann, of Berlin, and Biermer, of Breslau, discussed the paper, the latter maintaining the existence of three kinds of white corpuscles and of nucleated red cells.

Nomenclature of Auscultatory Sounds.

Dr. Austin Flint presented a list drawn up by the Members of the Committee, appointed at the last Congress for the purpose, of a proposed series of terms to constitute a uniform nomenclature of auscultatory sounds in the diagnosis of the diseases of the chest. He found that the terms proposed by the various members did not present any material points of difference, and none of the really important signs had been omitted. Some variation in the interpretation of the term "râle" was to be noted, some indicating a moist sound thereby, whilst others restricted it to the dry sounds. The definitions of bronchophony and of pectoriloquy were not quite in accord. He suggested that the report should be considered as provisional only, and that certain representatives of other countries should be added to the list to prepare a second report for the Congress of 1887. This proposal was accepted by the section on the motion of the President, who expressed the thanks of the members to the framers of the present report.

Malarious Infection in Man.

At the afternoon sitting, at which Dr. Liebermeister was called upon to preside, Professor Tommasi-Crudeli, of Rome, read a paper on Malarious Infection in Man. The human organism, he observed, presents different degrees of resistance to the action of malarial poisons. In some instances this degree is very high, and is hereditary in nations by a kind of natural selection. In the most civilized countries the conditions of life are opposed to the beneficent action of this natural selection. The specific ferment attacks the red blood corpuscles and causes necrobiosis, as a final result of a series of alterations in the protoplasm of the cells. These changes are characteristic and pathognomonic as a sign of infection.

In illustration of his paper, Professor Tommasi-Crudeli demonstrated, on Friday, a series of microscopical specimens of red-blood corpuscles, taken from cases of malarial disease in the human subject. These had been stained with aniline. In each preparation the healthy blood corpuscles were to be seen unstained, the others containing one or more small coloured particles, which he believed to be the germs of a bacillus. In a specimen of a blood-vessel of the pia mater, the contained blood-cells were seen to present large numbers of these particles.

Dr. Goldschmidt, of Lyngby, exhibited a chart, showing the progress of epidemics in Denmark and their close connection with floods from irruption of the sea, and from excessive rainfall.

Dr. Kering, of St. Petersburg, communicated a paper on Cerebro-Spinal Meningitis.

On Tuesday, August 12th, the section was presided over by the Dr. Bouchard, of Paris, and was occupied during the entire sitting with papers on the well worn subject of

The Treatment of Pulmonary Consumption.

Drs. Ewald, of Berlin, Graucher, of Paris, Quinlan, of Dublin; and Shingleton Smith, of Bristol, read papers, the two latter advocating the treatment of pulmonary consumption with verbascum thapsus and iodoform respectively.

Dr. Jaccoud, of Paris, pointed out with some force the fact that the discovery of the bacillus tuberculosis has been singularly sterile in its effect upon the treatment of phthisis. In prophylaxis also, he showed that precautionary measures against possible infection had been taken long ago. The main point at which to strive was to maintain the health of the upper part of the lung, and so render it insusceptible of infection. The good effect of high altitudes he believed to be due to the fresh air and means of exercise; he had himself pointed out the freedom of such localities from micro-organisms in the air. He considered that Koch's discovery was of great nosological interest, but not of any value in a therapeutic sense. Possibly in the future, owing to the discoveries of M. Pasteur, it may come to be of some prophylactic importance.

At the afternoon sitting in this section, Dr. Austin Flint took the chair.

Myxœdema and its Pathology.

A paper on Myxœdema and its Pathology, of which the following is an abstract, was communicated by Dr. W. B. Hadden, London. Myxœdema is a disease characterised by a general swollen condition of the body. The appearance of the patient suggests ordinary dropsy, but the parts do not pit on pressure. The face is swollen and puffy, the lips and alæ nasi thickened, the eyelids œdematous looking, and on each cheek there is a well defined flush. The general expression is placid and inert—in a word, cretinoid. The skin everywhere is dry and harsh, perspiration and the secretion of the sebaceous glands are almost absent. The hands are broad, clumsy, and "spade-like." The hair is soft and scanty, and tends to fall out. The nails and teeth share in the general malnutrition. The thyroid gland wastes, although it is difficult often to determine this, in consequence of the swelling of the tissues of the neck. Soft masses are usually to be felt in the supra-clavicular regions. The temperature is almost constantly subnormal. The speech is slow, thick, monotonous, nasal. The tongue seems to be too large for the mouth. There is general muscular feebleness, the gait is slow and tottering, and all movements are retarded. There is marked mental lethargy. An indisposition to all bodily and mental activity is one of the most striking features of the disease. The urea excreted by the urine is much diminished, but with this exception there is no constant change. In the later stages albuminuria and true dropsy may supervene. Somnolence, insanity, impairments of memory, disorders of the special senses, and certain subjective sensations are frequently experienced. The tongue, uvula, soft palate, and larynx are generally swollen, and difficulty in deglutition is often observable. The appetite is bad, and defæcation usually difficult, in consequence, probably, of swelling of the mucous membrane of the rectum. The disease usually attacks adult women, but it occasionally commences before twenty, possibly sometimes in childhood. It occurs among rich and poor. Climate and race are probably without influence. Syphilis and excess of alcohol have no share in its causation, but serious mental disturbance and exhaustion from excessive child-bearing are occasional antecedents. As regards family history, phthisis is remarkably frequent, acute rheumatism and insanity occasional, and in at least one case myxœdema has been observed in the collaterals. As to morbid anatomy, the constant factor is a diminution in size of the thyroid gland. According to Dr. Ord there is solid œdema of the connective tissue throughout the body, and a great increase in the amount of mucin —hence the name myxœdema (*mucus*, *œdema*). The author believes that the disease is probably dependent on changes in the sympathetic nervous system, and he thinks it not unlikely that the thyroid is in some relation with the peripheral sympathetic nerve-fibres. This view has recently been borne out by *post-mortem* evidence. Improvement has occasionally been effected by drugs, especially jaborandi.

After the conclusion of this paper, Professor Brandes exhibited a living specimen of myxœdema. The patient was 40 years of age, and had been ill for eleven years. All the characteristic symptoms were present.

Sir W. Gull referred to his paper on Adult Cretinism, published eleven years ago, which disease he considered to be identical with myxœdema. In these cases of sporadic cretinism, met with in England, he regarded the myxœdema as accidental and not the essence of the disease.

Dr. Mahomed thought that Sir W. Gull's early observations were remarkably confirmed by the latest knowledge of the subject, although his remarks did not include the whole of our information. Was the disease a permanent one? He believed that it was not only not permanent, but also not universal, and that single parts might become affected with myxœdema. It consisted essentially of perverted nutrition, but this need not be universal in character. Many cases had been observed to improve under treatment. The true origin of the disease remained a matter for speculation.

On Chronic Diarrhœa and Dysentery in persons returned from Tropical to Temperate Climates.

Sir Joseph Fayrer and Dr. Joseph Ewart read a paper on this subject. The disease is variously known as "diarrhœa alba," Hill diarrhœa, and in China "Sprue" (Manson). It may occur in persons who have not had any preliminary symptoms of malaria, but most frequently happens in the progress of convalescence from such fevers. The extreme variations of vaso-motor nerve equilibrium which accompany malarial attacks tend to weaken the resisting power of the abdominal organs and it is for this reason that the transference from one climate to another is liable to cause catarrhal affections of the intestines. This form of diarrhœa is essentially periodic, it is marked by progressive deterioration of the secreting apparatus with a tendency to shedding of the epithelium of the villi. Granular and fatty degeneration are generally present and may be accompanied by amyloid infiltration. The liver and kidneys are often found in a state of chronic inflammation. The symptoms are at first, those usually associated as indicating "indigestion." Then follow more grave changes, anæmia, continued diarrhœa with abundant offensive flatus, thirst, scanty urine, general wasting. The attacks of diarrhœa are still periodic and cannot be controlled for long together. The third stage is one of extreme emaciation, continued white diarrhœa, extreme flatulence, tendency to dysentery, anasarca, purpura followed by death, generally from exhaustion. The treatment as suggested by Sir J. Fayrer is simple, consisting of absolute rest, good ventilation and purely milk diet, given at first in small quantities and frequently, and gradually increasing in quantity until from three to four quarts are consumed in twenty-four hours. Occasional small doses of opium may be given but other drugs are to be avoided. The time for gradual return to ordinary diet must be determined by the circumstances of each individual case. Several illustrative cases are appended. The value of absolute rest in the treatment of chronic dysentery is also insisted upon. A purely milk diet and occasional evacuation of the lower bowel by mild enemata, has superseded the treatment by astringent remedies, although stimulant doses of twenty minims of turpentine in milk are often useful in very indolent cases. Healing of the local ulcers is the main point to be aimed at, and when that is accomplished the general health is often fully restored.

Peritonitis from Perforation.

On Friday, August 15th, Dr. Prilram, of Prague, in the chair, Professor With, of Copenhagen, brought forward a paper on peritonitis, resulting from the diseases of the vermiform appendix. Perityphlitis, he considered, took its origin from ulceration and perforation of the vermiform appendix. A peritonitis from this cause he would call "appendicular peritonitis." This might be either adhesive (before perforation), or general (after the perforation).

Physiological rest to the intestinal canal was chiefly indicated for treatment, obtained especially by means of opium and a complete abstention from laxatives for as long a time as twenty-four days, if necessary. Considerable restrictions must be put upon anything like operative interference.

Dr. Austin Flint referred to an interesting point in the diagnosis of perforation of the intestine, viz., the value of the persistence of hepatic dulness on percussion as constituting proof that perforation has not taken place. A very small quantity of air within the peritonæal cavity suffices to abolish hepatic dulness. This may be shown by the simple experiment of introducing into the peritonæal cavity of the cadaver, a small quantity of air through a trocar. A tympanitic resonance is thereby produced over the region of the liver. Dulness over this region, even if the vertical diameter of the space in which it is found be ever so small, is proof that perforation has not taken place. The presence of tympanitic resonance however is not a clear proof to the contrary, since considerable distension of the colon may produce it over the whole hepatic area to its junction with the lung resonance. The treatment by opium had long been practised in the United States, where it was introduced, thirty years ago, by Professor Alonzo Clark. Professor Clark had ascertained that in certain cases of peritonitis the tolerance of opium is increased enormously and that, in these cases, in order to secure the advantage of the treatment, the doses should be in proportion to the increased tolerance. The degree of tolerance could only be determined by closely watching each case individually. Although laxatives must be avoided it was sometimes necessary to remove accumulations in the rectum.

V. Section of Surgery.

On Monday, August 11th, formal business commenced at 10 a.m., by a speech from Professor Plum, in which the death of Professor Hohner, who was to have presided in this section, was feelingly referred to. The following gentlemen were then nominated Presidents of Honour:—Sir J. Paget, Sir J. Lister, Sir Spencer Wells, Sir W. MacCormac, Messrs. Marshall, Bryant, and G. Buchanan; MM. Ollier, Verneuil, Trélat; Herrn Esmarch, Volckmann Gurlt, Koch, Tilanus, Sklifossoffsky, and Drs. Sayre and Billings; lastly, Messrs. Chiene, Ogston, Kölliker, and Lauenstein were nominated to act as secretaries. Professor Plum stated that having been so unexpectedly invited to take the chair, he should avail himself of the services of the different Presidents of honour to preside at the various meetings, and Professor Volckmann was unanimously invited to take the chair for the day.

Before proceeding to actual business, Sir Hy. Acland, as a personal friend of the late Professor Hohner, spoke of the loss sustained by the section in the following terms:—After the very touching and affecting manner in which the death of Professor Hohner has been adverted to by your President and others, words seem unnecessary, still more so from one engaged in the pursuit of another branch of the profession; yet as one who had the honour and advantage of his friendship, I feel entitled to express on the part of the strangers present in Scandinavia the regard and esteem in which that admirable man has been held. I accidentally gained his acquaintance while on a visit here several years ago, and was at once struck by his singularly beautiful character, unsurpassed modesty, and scientific earnestness, combined, I believe, with superior qualities as a practitioner. As a visitor with him in his daily round of hospital work I was only too proud to receive a lesson from him, and when only the other day I heard of his death, I could hardly bring myself to come to a city where I had met him. I am glad to have this opportunity of expressing, as a stranger, the loss which we feel has fallen on surgery and science, as well as our regret at having no more amongst us such an example of high character in public and private life.

Operations for Cancer of the Rectum.

The subject of the operative treatment of malignant disease of the rectum was then opened by Professor Esmarch, who read a paper on Extirpation of the Rectum for Cancer. The principal point in Professor Esmarch's communication was the expression of his belief that a permanent cure might follow the excision of the cancerous rectum. He pointed out that recent advances in technique had lowered the death percentage from 50 to 20, and expressed the conviction that better results are still to be obtained.

Professor Esmarch was followed by Mr. Bryant, who presented a tabular arrangement of 82 cases of colotomy performed by him, from which he drew the following conclusions:—(1) That in all cases of cancerous stricture of the rectum or colon, including the annular (which are not amenable to lumbar colectomy or anal excision) right or left lumbar colotomy is strongly to be recommended with the well-grounded hope of relieving suffering, retarding the progress of the disease, and of prolonging life even for five or six years. (2) That lumbar colotomy is valuable as a *curative* operation in syphilitic and simple ulcerations of the bowel which resist other treatment, including cases of recto-vesical fistula, and that it is remedial in examples of volvulus of the sigmoid flexure, as well as of obstructions caused by tumours. (3) That to secure these advantages it is necessary for the operation to be performed before the pernicious effects of obstruction occur. He adverted also to his recent modification in operating directed towards the prevention of the passage of fæces into the lower end of the bowel. The usual colotomy incision is made and the bowel is exposed; this having been done, traction is made on the pelvic end, and a knuckle of colon is easily drawn out after free separation of the cellular connections with the finger. The knuckle of colon is left projecting in the wound, unsecured by stitches, and on the fourth day punctured. Mr. Bryant would have no objection to stitches if the operator thought them necessary. The operation has been at present performed in two cases, with eminently satisfactory results.

M. Verneuil considered colotomy a palliative measure only, preferring iliac colotomy as a simpler and equally effective operation. He spoke at some length of the palliative operation of linear rectotomy, practised by himself during the last 18 years in cases which he considered unfit for colotomy or extirpation. The operation is performed in the following manner: The left forefinger being introduced as far as the upward limit of the growth, the thermocautère is introduced external to the sphincter ani in the posterior raphe well without the limits of the growth. When the cautery has been pushed so far that the finger is in danger it is withdrawn and a thick probe introduced into the canal, upon which the complete division into the lumen of the bowel is made. Professor Verneuil claims for this operation that it relieves pain and obstruction.

Professor Trélat stated that he practised all three operations of colotomy, rectotomy and extirpation in suitable cases; but his results forced him to the conclusion that all three were palliative measures and not curative. Of ten cases of extirpation in his practice, recurrence had taken place in eight, in four early and in four late. He remarked on Mr. Bryant's statement that in 82 cases no anomaly of position of the colon had been met with, and quoted a case in which the small intestine, 62 cm. from the duodenum, had become adherent to the kidney and was opened. Mr. Sampson Gamgee spoke of some cases of colotomy seen in the practice of M. Verneuil and himself. Professor Marshall spoke of the recession of urgent symptoms noticed in cases of malignant stricture of the rectum on the formation of fistulæ as bearing on M. Verneuil's operation of rectotomy, and stated that the observation had led him to make irregular incisions with a view to forming fistulæ which he kept open with sea tangle in five cases; the results had been such as to make him look favourably on the improved method of M. Verneuil.

Professor Volckmann spoke at considerable length on the subject. He pointed out that the prognosis in different forms of cancer differed much with their topographical distribution, instancing the nose as a situation in which it was relatively good. He stated that in rectal carcinoma especially was the prognosis a good one, recurrence often taking place as late as five, six or seven years. The prognosis was also better in cases of chronic progress; and again in a certain number of cases the new growth was surrounded by a wall

of inflammatory new formation. These latter at the time of operation, were often thought unpromising from the indurated nature of the tissue cut through, but experience showed that they were most favourable, the wall of inflammatory new formation appearing to act as a barrier against the spread of infiltration in the lymphatic vessels. He spoke in detail of the three forms of carcinoma met with, adverting to the occurrence of scirrhus in young subjects, as well as its tendency to affect long areas of the gut, and expressed the opinion that all other forms of new growth are exceedingly rare. With regard to the treatment, cases are divisible, he said, into two classes, according as the peritonæum is or is not opened; in the latter the prognosis is good and in the former of course less so. A surgeon's results with excision of the rectum improve with practice, as has been the case with ovariotomy and nephrectomy; hence a gradual improvement in statistics is to be looked for, though from the nature of the case so good an average as that obtained in ovariotomy is not to be expected. Drainage is necessary when the peritonæum is opened; the peritonæum however should be sutured between the openings left for the tubes. The operation is indicated when the upper limit can be reached under chloroform, and when the growth is so moveable as to allow the assumption that the bladder is not implicated. The gut should always be brought down and sutured. In the one case where he omitted plugging the wound with iodoform a long stricture resulted. The cases for colotomy were few in number, belonging to a neutral zone of gut, too low for laparotomy and excision, too high-reaching for extirpation. In these cases he preferred anterior colotomy, the lower end being separated, sutured and returned, to prevent the possibility of the formation of a *cul de sac*. As to the mortality after operation—of Mr. Bryant's 60 cases of colotomy, 26 had died in the first four weeks, a much higher death-rate than had ever followed extirpation, and lastly when patients did get a recurrence after extirpation they usually died without the pain and suffering commonly attending death from rectal carcinoma.

Mr. Hy. Morris presented a table of 23 cases of colotomy arranged as Mr. Bryant's. He stated that the reasons which led the surgeons at Middlesex Hospital to practise lumbar colotomy were: (1) The fact that the peritonæum is not opened. (2) That right lumbar colotomy is practicable in some cases where ante-sigmoid colotomy is impossible, and (3) That in many cases the patients were exhausted and bedridden, so that the posterior opening offered a more convenient and dependent drain. The discussion was closed by Professor Kuster. He expressed his approval of iodoform as a dressing after extirpation and dwelt on the value of the scraping as a substitute for colotomy or rectotomy. He stated that so great an improvement followed scraping as sometimes to allow the patient to think himself cured for three or four months.

Dr. Paquet, of Lille, read two communications: (1) Unilateral hyperostosis of all the bones of the head, excision of the upper jaw, arrest of the hyperostosis in all the other bones. (2) Removal of the thigh bone, or disarticulation of the hip joint with the thermo-cautère. Two cases. Cure.

Dr. A. Van Deveer contributed a paper on the treatment of the intermaxillary bone in cases of cleft palate with double hare-lip, and Mr. Reginald Harrison read a paper on the treatment of certain cases of prostatic obstruction by section of the gland. The objects aimed at by the operation and the after-treatment are: (1) To obtain a precise knowledge of the impediment to micturition caused by a prostatic bar, by means of digital exploration. (2) The removal and division of any barrier formed by the prostate which was found seriously to obstruct micturition. (3) To provide for the permanency of the section or cleft so formed in the floor of the prostatic urethra (*a*) by the use of a suitable drainage tube, and (*b*) by the subsequent employment of bougies. Professor Volckmann preferred the simple boutonnière operation with subsequent passage of a bougie the size of the finger, and where this failed, the old practice of making a lateral lithotomy incision.

The Section of Military Medicine was joined with that of Surgery for the first day's sitting.

Resection and Arthrotomy in Tubercular Diseases of Joints.

The day's work on Tuesday, August 12th, commenced with a paper by Professor Ollier on the above subject, which was followed by a prolonged discussion, in which Professors Volckmann, Trélat, and Chiene took part. Professor Ollier advocated arthrotomy and canalisation in many cases of tubercular joint. Professor Volckmann thought arthrotomy a bad term as it might extend from simple puncture to scraping of bones and complete extirpation of all joint structures. He dwelt on the tubercular nature of the diseases known as white swelling, pulpy degeneration, strumous joint, spina ventosa, &c., and stated that in his opinion the point in treatment was the extirpation of the tubercular granulations which should be as complete as that of a round celled sarcoma. Professor Chiene mentioned the treatment adopted by him in the different joints, and Professor Trélat made some observations much in accord with what had fallen from Professor Volckmann.

Osteoplastic Resection of Foot.

A case of Mikulicz's osteoplastic resection of the foot was exhibited by Dr. Lauenstein, of Hamburg. The operation (which consists in the removal of the articular surfaces of the tibia and fibula, the entire os calcis and astragalus, together with about half the scaphoid and cuboid bones, the sawn surfaces of the scaphoid and cuboid being then applied to those of the tibia and fibula, the patient afterwards walking on the metatarso-phalangeal line, the foot being in the position of extreme equinus) was performed for caries of the os calcis and astragalus. Six weeks after the operation the patient could walk in a plaster of Paris bandage, and at the end of ten weeks he resumed his work as a mason which he has carried on up to the present, a period of twelve months. The advantage claimed for the operation is that it can be resorted to where the state of the soft parts about the heel renders Syme's amputation impossible, and it is then a substitute for amputation of the leg. The patient can walk in a boot made by an ordinary shoemaker. Dr. Lauenstein quoted eight cases, one for syphilitic disease of os calcis, seven for caries; of these latter, four were definitely cured, two died during the first year of pulmonary tuberculosis, and in one case only had a secondary amputation of leg to be performed. Professor Sklifossoffsky, of Moscow, claimed priority for Dr. Vladimiroff, of Kasan, who performed this operation as early as 1872. He thought it good for traumatic cases, but not for caries.

Osteotomy for Genu Valgum.

Mr. MacEwen, of Glasgow, read a paper on osteotomy for genu valgum, quoting results of 1,304 cases, in which his supra-condyloid method had been resorted to, with ten deaths, only one of which could be attributed to the operation, comparing these results with those obtained by other methods. In the discussion which followed, Dr. Ogston very handsomely renounced his own operation in favour of MacEwen's, and Mr. Chiene expressed his intention to give it a fair trial. Dr. Schede spoke in favour of MacEwen's method, pointing out that in many cases the tibia should be divided rather than the femur. Mr. Bryant also spoke in favour of the supra-condyloid method.

Dr. Robin, of Lyons, exhibited an instrument for supra-condyloid fracture of the femur, from two to four fingers' breadth above the epiphyseal junction in cases of genu valgum. The method consisted in fixing the thigh, and then fracturing the femur by a lever, the force being applied in an antero-posterior direction. He had used the method 93 times without any accident, and exhibited photographs of the cases.

Mr. W. Adams read a short paper, and exhibited a series of photographs taken from cases of Dupuytren's finger contraction.

Dr. Howe, of New York, exhibited a calculus, weighing 3,541 grains, which had been removed by supra-pubic lithotomy, combined with urethral puncture. The calculus was composed of five layers of mixed phosphates on a compound oxalic nucleus.

Discussion on the Treatment of Wounds.

On Thursday, August 14th, Professor Trélat occupied the chair, Sir Joseph Lister, who had been confidently expected, not arriving. The discussion on wound treatment was opened by Professor Esmarch. He enunciated his general principles and went at rather more length into his practical method. He stated that the majority of the vessels were tied with catgut before the removal of Esmarch's band, in some cases the dressing being also applied before loosening it. He laid stress on infrequent dressings, and stated that he was in the habit of not introducing drainage tubes, which necessitate dressing, but in their place he leaves larger gaps between the sutures at the dependent points. The principal antiseptic at present in use at Kiel is bichloride of mercury (1 in 1,000). The spray is used before but not during the operation, and the wound during the operation is washed with filtered distilled water, the sublimate solution being applied once only, immediately before the permanent dressing. The permanent dressing consists of bags of turf moss.

Professor Mosetig Von Moorhof followed with a paper on the iodoform treatment of wounds. He stated that he was the only surgeon who used the pure iodoform treatment, all other surgeons employing other antiseptics at the same time. He uses spring or distilled water only, to wash the wound. The hand, instruments and the neighbourhood of the wound are disinfected with some fluid medium. He thought perhaps its antiseptic power was greater with living than dead tissue and quoted Binz to the effect that when applied to a wound it checked the migration of leucocytes. He praised it as pain-stilling, and recommended iodoform gauze moistened with 1 part of glycerine and 2 of water as a dressing for burns. He also uses a solution in benzol mixed with vaseline, 1 part in 9 or 1 in 12 for similar cases. He affirmed its local action in tubercular granulations, cure being more permanent with less chance of recurrence than with other treatment. With regard to iodoform intoxication he had never seen it follow the pure iodoform dressing although he had made from 9 to 10,000 dressings; if it did occur it depended on the use of too much iodoform, or too frequent dressings, especially where much loose connective tissue exists, in other cases perhaps on renal disease. As to erysipelas he had never seen it except in the winter 1881-1882, and in that winter it abounded throughout Europe. He did not consider iodoform a better antiseptic than many others, but relatively it was more useful, especially for the poor doctor, the country doctor, and the army doctor, to all of whom its ease of application was a very great advantage, possessed by no other antiseptic at present in use. He had had 42 large amputations of which 37 had healed per primam with one dressing.

Dr. Schede said that when at the Frederichshain Hospital in Berlin, he had never had any erysipelas or pyæmia, but when he came to Hamburg, he found that slight and severe cases of sepsis occurred, but no actual pyæmia, although he continued the same antiseptic practice he had carried out at Berlin. He therefore looked out for a new antiseptic, and chose iodoform; this he employed for one year. The results were unsatisfactory. Erysipelas increased in frequency (29 cases with 15 deaths in 13 months), pyæmia and septicæmia occurred, besides cases of iodoform intoxication. Iodoform was therefore discontinued, and bichloride of mercury substituted; since then he had seen no more septic cases, in fact the wounds had followed an ideal aseptic course. Statistics of a very favourable nature were given of 1,780 cases, including 229 large amputations, in which suppuration occurred 17 times, deaths 12, none septic; 170 large resections, 63 healed per primam, 8 deaths; 75 osteotomies, no deaths; 8 uterus extirpations, 1 death; 25 ovariotomies, no death; and many other series of operations. With regard to mercurial poisoning, he had lost one case, a very cachectic woman with mammary carcinoma; she showed signs after the first dressing, these receded to re-occur after the next dressing, and again on a third occasion after which she died. Diarrhœa, bloody stools and salivation were occasionally seen, but disappeared when the dressing was discontinued. He now uses the 1 in 1,000 solution only for disinfection of wounds inflicted some time before coming under the surgeon's hands, or septic wounds; for other cases a solution of 1 in 5,000. He finds this sufficient, and has had no case of intoxication for 18 months. Children are very tolerant, and the whole body may be safely bathed in a solution of 1 in 1,000. No protective is used, but a small pad of glass wool soaked in 1 p. c. sublimate solution. Protective keeps the blood clot in the lips of the wound moist, and allows more chance of putrefaction. Over the glass wool, moss bags are applied, a soft, cheap and easily disinfected dressing, and the whole is fixed with a bandage, without macintosh. Sublimate catgut is used, and, if the surgeon likes, sublimate gauze instead of the moss.

Professor Mikulicz strongly recommended iodoform plugs for operations about the mouth, nose, pharynx, vagina, or rectum. Iodoform was only of use as a permanent dressing, not for primary disinfection. His experience with regard to erysipelas differed from Dr. Schede's, he had only had one case in 104. Thirty to fifty per cent. iodoform gauze was used, and separate drainage was not found necessary. He had seen iodoform intoxication, but rarely after large wounds; if symptoms occurred a weaker dressing must be applied or the iodoform discontinued.

Professor Neudörfer spoke of the difficulty, for those who did not work in large hospitals, of keeping the sponges aseptic, and recommended their disuse. He thought blood serum underwent decomposition in the absence of any special ferment from without. The principles of wound treatment on which he worked were three. (1) The preservation of the wound from foreign organisms. (2) The prevention of putrefaction. (3) The rapid advancement of the necessary changes in the blood serum, best attained by a supply of oxygen, such as is ensured by the use of peroxide of hydrogen.

Professor Buchanan (Glasgow) spoke of Lister's first operations; Dr. Schelkly, of antiseptic practice in the colonies.

Professor Koeberlé adverted to the difficulties of obtaining strict asepsis, which he thought unnecessary, and recommended the use of oxydising agents. Professor Blom was in accord with his German colleagues, and spoke of the importance of cleanliness in the hands of the assistants.

Professor Trélat closed the discussion with a statement of the general rules which guided him in wound treatment. (1) Complete apposition. (2) Removal of all foreign matter either mechanical or septic, here adverting to the difference in town and country practice, in regard to surroundings and consequent purity of atmosphere. (3) Preservation from external infection. (4) The use of antiseptic means, of what nature the surgeon liked if only effective. (5) Dressings to be as infrequent as possible. He followed the following plan:—(1) Irrigation of the wound with carbolic acid, or sublimate solutions. (2) Final disinfection before closing. He used antiseptic gauze, iodoform gauze for cavities, and elastic bands to fix the dressing when necessary.

Professor Blom paid a tribute to the esteem in which Sir J. Lister was held, and invited the section to rise as a body, to express their sense of the benefits conferred by him on science, the sick, on those present, and on all.

Dr. Whitson, of Glasgow, read a paper on the treatment of talipes by paraffin boots, made by applying bandages which had been dipped in melted paraffin. He also cited two cases of varus successfully treated by excision of the cuboid bone.

On Friday, August 15th, Professor Sklifossoffsky having taken the chair, Dr. Phelps, of New York, read a paper on the treatment of certain cases of talipes varus, by an open incision carried down to the medio-tarsal joint; in one case combined with section of the neck of the astragalus, and in others with division of the post-tibial tendon (ten cases were included). The operation is commenced by subcutaneous division of the tendo Achillis, and the incision in the sole leads down to the mid-tarsal joint, all structures except the external plantar artery and nerve being divided. He repeated Mr. Davy's experiment of dividing the superior calcaneo-cuboid ligament subcutaneously, showing that an extreme varus could so be produced.

Renal Surgery.

Mr. KNOWSLEY THORNTON read a paper on nephrotomy, nephrolithotomy, and nephrectomy. He quoted fifteen cases (four nephrotomies, three nephrolithotomies, eight nephrectomies) occurring in his own practice, of which fourteen were still living, one having died of extension of tubercular disease to the second kidney. The principal points of interest were his advocacy of the abdominal incision, as allowing the neighbourhood of the calculus to be ascertained, the condition of the other kidney to be made out, and steadying of the kidney should nephrolithotomy be the operation. The loin incision should not communicate with the peritonæum, and should only be one inch to one inch and a half in length. The relative prognostic importance as to incision of the renal substance and of the pelvis, as to the formation of urinary fistula was spoken of, and two cases quoted where incision of the renal substance had been followed by long continuing fistulæ, while in his third case the pelvis had been incised and no urine escaped after the fifth day. In the eight nephrectomies Langenbach's incision was employed four times, the median three times, and once the incision was made parallel, but external, to the outer edge of the recti. On the whole, preference was given to Langenbach's incision. The importance of fixing the cut-end of the ureter to the inferior angle of the wound was spoken of and a case quoted where this was not done, and where a septic abscess followed. Mr. Thornton thought that renal operations fairly promised to rival ovarian ones in success.

Professor KOSINSKI related a case in which he had performed nephrectomy by an anterior incision, running from above the umbilicus obliquely outwards parallel to the fibres of the obliqnus externus. The case was one of tubercular disease with calculus.

Dr. TSCHERNING, of Copenhagen, also read notes of a case of lumbar nephrectomy. The incision was a longitudinal one at the edge of the erector spinæ, with a horizontal branch travelling forwards.

Mr. HENRY MORRIS thought lumbar nephrotomy or nephrectomy very much safer when no large renal tumour had to be removed. He objected to fixing the ureter to the anterior abdominal wall, suggesting that it formed a band, behind which coils of intestine might get strangulated. He thought Mr. Thornton's two incisions apt to weaken unnecessarily the abdominal wall, and that the examination of the other kidney was not a very strong reason for their adoption. As to nephrectomy for pyonephrosis, he thought that considerable time should be given, quoting a case of nephrotomy in his practice where the patient had been entirely relieved, although still obliged to wear an apparatus to collect urine escaping from a fistula. He suggested extensive probe incisions before extirpating a kidney in which a calculus was supposed to be lodged. As to the question of incision of renal substance or pelvis, he thought it of little importance, the indication for either being the position of the stone alone. He suggested that in some cases, perhaps not very uncommon, where the calculus was arrested close to the entrance of the ureter into the bladder it might be removed by cystotomy.

Mr. GRIFFITH, in relation to the question of suturing the ureter to the wound, mentioned a case where he had made a *post-mortem* examination after a nephrectomy for a sarcomatous tumour, and found the ureter very much dilated. He suggested the introduction of a permanent catheter to obviate this danger.

Mr. BRYANT spoke strongly in favour of nephrotomy, rather than nephrectomy. He had never performed the latter, but had every reason to be satisfied with the result of twelve to fifteen cases of nephrotomy which had occurred in his practice. He thought the free incisions into the kidney and pelvis, suggested by Mr. Morris, quite advisable when doubt existed as to the presence of a calculus.

Mr. THORNTON, in reply, upheld the abdominal incision. He thought an incision into the peritonæal cavity unattended by any danger, except that of taking an anæsthetic, if asepsis was ensured. He thought that the sutured ureter would so soon atrophy as to be a very unlikely source of the danger suggested by Mr. Morris, and his lumbar incision was so small in nephrolithotomy, as to give little chance for the development of a hernia. He was quite in favour of exploratory incisions in the kidney. He thought a permanent catheter inadvisable from the danger of cystitis. He thought the suggestion of cystotomy in certain cases good. Lastly, he thought his cases must have been of a widely different nature from those of Mr. Bryant, as in none of them would any one have thought of suggesting nephrotomy.

The afternoon sitting was principally taken up with a discussion on the two papers read, on the Treatment of Talipes.

VII. SECTION OF OPHTHALMOLOGY.

ON Monday, August 11th, this section was principally occupied by two papers on the practical value of light-sense examination in ophthalmology, by Drs. Samuelsohn, of Cologne, and Bjerrum, of Copenhagen. The former, disagreeing with Förster's rule on the subject, believes that although an affection of the perceptive cells in the retina is followed by a diminution of the light sense, the reverse of this is not true for all cases, and instances certain forms of haziness of the vitreous, certain conditions of cataract and glaucoma, all of which require to be looked for in cases of failure of qualitative light perception. Dr. O. B. Bull, of Christiania, also presented an interesting paper on his investigations on the perception of light and on photometry.

On Tuesday, August 12th, Dr. MAYER, of Paris, presided. Papers were read by MM. Radard, of Paris, Libbrecht and W. Thomson, on testing vision of railway employés. A committee on the subject was proposed but deferred for further consideration.

Professor SATTLER, of Erlangen, read a paper on jequirity infusions and their use, embodying all the facts already known on the subject. He employed it in granular affections of the conjunctiva, although with occasional injury to the cornea.

Dr. BENSON, of Dublin, who had had considerable experience of the use of jequirity, extolled its value in granular conjunctivitis and pannus. In some of his cases he had not been able to detect the presence of the characteristic bacillus.

On Thursday, August 14th, Professor SCHMIDT RIMPLER, of Marburg, described a new method of estimating the refraction of the eye, by means of indirect ophthalmoscopic examination. The lens is held at a fixed distance in front of the eye, whilst a tape measure is extended from this to the ophthalmoscope, thus fixing the distance between these two points. An image of the lamp is then observed and according to the distance at which this image becomes clear and well defined, so Professor Rimpler is able to estimate the refraction.

Mr. BERRY, of Edinburgh, approved of Professor Rimpler's method since it enabled one to get over the difficulty of estimating refraction in the region of the yellow spot. The refraction in this region often differs considerably from that in the neighbourhood of the optic disc.

Dr. NOYES, of New York, thought that the diagnosis of errors of refraction should always be confirmed by means of test-glasses.

Mr. JULER, of London, wished to see something more of Professor Schmidt Rimpler's method, and agreed with other speakers as to its value in estimating refraction in regions where vessels were scarce. He considered that the shadow test (retinoscopy) formed the best means of estimating the refraction in astigmatism, but it required that the eye under observation should be fully atropised.

Dr. E. MAYER, of Paris, read a paper on the artificial maturation of cataract, advocating a process of "massage" of the lens, after tapping the anterior chamber of the eye. He had found the proceeding to be efficacious, and innocuous, and he thought it might well be employed in dealing with cataractous lenses, requiring removal, which were not yet fully matured. He showed a rabbit's eye in which he had produced opacity of the lens by this means three days previously. No definite pathology could be given in explanation of the results produced.

Dr. Christensen, of Copenhagen, read a paper on blennorrhœa neonatorum, and Dr. Martin, of Bordeaux, brought forward the subject of inflammation of the eye and its surroundings caused by astigmatism.

On Friday, August 15th, Professor Gayet, of Lyons, read his paper on the result of great loss of substance of the cornea. He advocated the substitution of peripheral section of the cornea with a large iridectomy, for the simple method of opening abscesses.

Mr. Berry had seen the results both of corneal section and the iridectomy treatment. He thought it was not necessary to incise more than the part most affected. Cases were at times unsuccessful under both modes of treatment and, as a rule, these abscesses should be treated on the same principles as abscesses elsewhere. He thought that the dangers of anterior synechia were exaggerated.

Dr. Hansen Grut, of Copenhagen, in reply to Dr. Noyes, had found from experience that the re-opening of the corneal section generally does harm, and increases the risk of adhesions. In case of failure of incision, he would use the actual cautery.

Dr. Mayer, of Paris, also deprecated interference with a section once made.

At the afternoon sitting, on Friday, Mr. Cowell, of London, in the chair, Dr. Hansen Grut, of Copenhagen, read a paper on latent divergent squint, which he defined as a defect of convergent impulses, and pointed out that it was neither a paralysis nor a disturbance of muscular equilibrium. He thought that the frequency of muscular asthenopia was very much exaggerated, its symptoms being very uncertain and its presence being very difficult to prove.

On Saturday, August 16th, Mr. Cowell, of London, being again in the chair, Dr. Jannik Bjerrum, of Copenhagen, read a paper on the refraction of new-born children. Professor Holmgren, of Upsala, communicated a paper on colour sense. Mr. Juler, of London, gave demonstrations of—(1) McHardy's perimeter; (2) Frost's artificial eye. Krebs electro-magnet, for removing particles of steel from the eye, was also exhibited.

XI. Section of Laryngology.

On Monday a combined sitting of this and the Otological Section was mainly occupied with a discussion upon the structure of the tonsils and their diseases, regarded from a practical point of view.

Laryngeal Paralysis.

At the meeting of the Laryngological Section, on August 12th, held under the presidency of Dr. Morell Mackenzie, Dr. Felix Semon, of London, read a paper on Laryngeal Paralysis, which contained many points of interest. It will be remembered that he drew attention some years ago to the fact that in commencing paralysis of the motor nerves of the larynx, from whatever organic cause, the fibres supplying the abductor muscles appeared to be the first to give evidence of failure. In his present paper he stated that he had been for years hampered in his efforts to determine the cause of this phenomenon by the consideration of a simple physiological fact, viz.:—that the width of the glottis during quiet respiration (both inspiration and expiration) was considerably larger than that seen after death. He had established this fact by large numbers of direct comparative measurements. As a result of a long series of observations, of which he gave details, Dr. Semon had come to the conclusion that this greater width of the glottis during life was not due to the greater strength of the abductor fibres, but really to a distinct innervation which they received, in virtue of their respiratory function, directly from the respiratory centre. This extra-innervation bore the character of a reflex-tonus, the respiratory centre being in turn constantly stimulated through centripetal fibres, contained in the trunk of the pneumo-gastric nerve. He believed that this was the true explanation of the apparent preponderance of the abductor fibres in the trunks of the nerves.

Dr. Krause, of Berlin, communicated a very long paper on the same subject, the reading of which had to be considerably curtailed. He had, however, come to exactly the same conclusions as Dr. Semon, with regard to the existence of tonicity of action of the abductors, due to reflex influences. As the result of certain experiments upon dogs, he had, however, arrived at a different explanation of the abductor paralysis, and believed that the phenomena produced were to be explained as "contractions of the abductors." He proposed to give a more detailed account of this condition in a forthcoming number of *Virchow's Archiv.*

The following is a brief record of the proceedings in some of the other sections, on Monday, August 11th:—

In the Obstetric and Gynæcological Section a lively debate took place upon the subject of removal of uterine myomata by means of laparotomy, in which Sir Spencer Wells and many others took part. The subject was introduced by a paper of Dr. Koeberlé, of Strasburg, in which the aspects of the disease and its treatment were fully considered. The indications for the operation were chiefly these: Reduced condition of the patient from hæmorrhage; particular circumstances whereby the presence of the tumour rendered life almost insupportable; relative age of the patient in respect of the menopause. Contra-indications were presented by the presence of vascular adhesions to the abdominal wall, rapidly recurring ascites or the presence of other disease. He advocated removal of the tumour per vaginum in every possible case, but in all others he would perform laparotomy. Pedunculated tumours might be ligatured, and the stump returned. Hysterectomy, which was quite feasible in cases of tumour within the uterine wall, became exceedingly difficult and dangerous when the tumour was situated in the ligaments, or bound down in the cavity of the pelvis. Enucleation of tumours presented many dangers. He would regard the operation of laparotomy as a real advance in abdominal surgery, and one worthy to be taken into serious consideration by the profession. Other papers on the treatment of uterine tumours by electrolytic puncture were read by Drs. Apostoli and Ménière, of Paris.

In the Section for Children's Diseases, Dr. Rehn, of Frankfort, read a paper on the so-called Acute Rickets, to which Dr. Barlow, of London, contributed some specimens; and Professor Herschsprung, of Copenhagen, recorded his observations on hæmo-globinuria in the first year of life, and gave demonstrations.

In the Section for Psychiatry and Neurology, a proposal for uniformity in the annual reports of lunatic asylums in the various countries was brought forward by Dr. v. Schwartzer, of Buda Pesth, after which the curability of labes dorsalis was introduced by Professor Eulenburg, of Berlin. His experience led him to class the curable cases only in the proportion of one per cent. No criterion of curability could be at present suggested, nor was it possible to understand any real recovery from the local pathological changes. Cases had been observed, however, where the clinical symptoms gave evidence of recovery, whilst the subsequent pathological changes were found to be as well marked as in the progressive cases.

ABSTRACTS AND EXTRACTS.

M. STRAUSS' REPORT ON THE CHOLERA AT TOULON.

At the meeting of the Academie de Medicine on August 5th, M. Strauss made the following communication on behalf of himself and his colleagues in regard to their investigations on the cholera at Toulon. In their first autopsy they had been able to establish the identity of the lesions with those which they had found in the Egyptian epidemic. In Egypt they had endeavoured to find a specific microbe in the walls of the intestine. The method they had adopted consisted in staining sections of portions

of the small intestine, hardened in alcohol, with methylene blue. Divers micro-organisms in varying numbers were thus discovered in the superficial portions of the mucous membrane, in the ducts of the tubular glands, amongst the villi, and here and there in the sub-mucous tissues. The majority of these organisms were bacilli, varying in size and appearance. From these anatomical data, it had not been possible to draw any positive conclusions as to the cause of the disease. At Toulon they had again tried to find the specific organism in the intestinal wall. According to Koch, cholera was characterised in Egypt as well as in India by the constant presence, in the mucous membrane of the small intestine, of a characteristic bacillus.

The new observations of MM. Strauss and Roux enabled them to confirm what they had found in Egypt. In the intestinal mucous membrane of a certain number of cholera patients, the most varied organisms were met with, especially in cases where the disease had been somewhat prolonged. But in more rapid cases these organisms were not nearly so numerous, and in the most rapid cases of all it had not been possible to detect their presence. Like Koch, Strauss used a watery solution of methylene blue. In a good number of cases no micro-organisms could be found in the mucous coats of the intestines. In some of his reports dated from Calcutta, Koch had given more exact details as to the organism which he regarded as the cause of cholera. His investigations were made on the contents of the intestines and on the stools. "The bacillus of cholera," he had said, "is not quite straight, but somewhat curved, sometimes in the shape of a comma, sometimes in the form of a semi-circle." Koch had used no special method of staining in order to demonstrate this microbe. The specimen of the stools or of the intestinal mucus was spread in a thin layer on a cover glass, and dried. The preparation thus obtained was slightly warmed and stained with a solution of some aniline base, preferably methylene blue.

In Egypt M. Strauss and his colleagues had also obtained these microbes. When the characteristic choleraic stools were examined, it was seen that they mostly contained a great number of different micro-organisms, and in many instances only a few of the comma-shaped organisms were found, even when the stools had the rice-water appearance. The contents of the intestines taken from the dead body under the most favourable conditions showed, in the majority of cases, various sorts of micro-organisms, amongst which were found comma-shaped bacilli, without, however, there being any marked predominance of these over the others. In a very malignant case in which the autopsy was made with M. Koch, MM. Strauss and Roux found the small intestine as it were lined with mucus, a thin layer of which, spread out and stained in the manner already described, showed a large quantity of comma-shaped bacilli. They were led, therefore, to attribute an important part to the comma-shaped organism in cholera. But there were some cases where so great a variety of organisms was found in the contents of the intestinal canal, that no one of them could be said to predominate. In such cases M. Koch had had recourse to cultivation in order to demonstrate them. A specimen of the contents of the intestine was diluted by being placed in a gelatinised infusion, rendered fluid by the application of a gentle heat, and the fluid thus fertilised was transferred to a watch glass. In the little islets of organisms which were developed, were some having the aspect of refracting masses, formed by comma-shaped organisms, which rendered the gelatine immediately around them fluid, and could then be seen under the microscope to possess rapid movements. During the period of their vegetation, these organisms sometimes remained joined end to end, and were then S-shaped or in the form of spirillæ. It was this appearance of the cultivation on the gelatinised infusion which M. Koch regarded as characteristic. The comma-shaped organism required an alkaline medium for its development; it proliferated with the utmost readiness in the majority of alkaline media, at a temperature of from 16° to 42°. Were we justified in concluding that the comma-shaped microbe was the organism of cholera? Until success had been obtained in transmitting cholera by means of the administration of a pure cultivation of this organism, this could not be considered to be proved. For lack of direct proof furnished by the inoculation of animals with the comma-shaped organism, M. Koch had endeavoured to show that the organism which he had described in cholera, was only met with in the intestine of cholera patients, and never in healthy persons, or in those who are suffering from any other disease than cholera. It would be sufficient that the organism of M. Koch should be found even once only, in a case of something other than Asiatic cholera, to put an end to the question. The comma-shape alone could not be regarded as characteristic of the organism of cholera. M. Malassez had shown them some comma-shaped bacilli detected in the stools of a patient with dysentery, and M. Strauss had found comma-shaped bacilli himself, similar to those in cholera, in the vaginal mucus taken from a woman suffering from epithelioma of the neck of the uterus. If the comma bacillus was the cause of cholera inasmuch as it only lived in the contents of the intestine, and, in rapid cases at any rate, did not invade to any appreciable degree the mucous membrane of the intestine, it must be admitted that in order to produce such rapid and intense effects as it did, it secreted a soluble ferment, a ptomaine, some poison which when absorbed provoked symptoms of cholera. We must then endeavour to extract from pure cultivations in which the bacillus had lived, a soluble poison which would reproduce in animals symptoms analogous to those observed in persons suffering from cholera. It would also be especially interesting to note whether in cases of undoubted cholera nostras the comma bacillus was met with. The minute particles in the blood which had been met with in Egypt were also found at Toulon; they were due to a peculiar alteration of the hæmoglobin. Thus it will be seen that M. Strauss in his general results agrees with the opinions recently expressed by Dr. Klein.

OPHTHALMOLOGY.

The Ætiology of Ophthalmia Neonatorum — Zweifel's Experiments. — Some time ago Zweifel reported in *Archiv für Gynäkologie*, Band XXII., some experiments which he had made with lochial secretion. The conclusions drawn from the experiments throw some light on the question as to the ætiology and the prophylactic treatment of ophthalmia neonatorum, and they have also considerable value from a medico-legal point of view. In 1882, Schirmer, Zweifel's assistant, published a case of ophthalmia neonatorum in a child of six days old, produced by the entrance of lochial discharge into its eyes, which up to that moment were perfectly healthy; in about 40 hours after, the affection appeared. The mother was perfectly healthy and had never suffered from a venereal affection. The child was cured under Professor Sattler's treatment, who examined the discharge microscopically and found that it contained the gonococcus of Neisser, which is the characteristic of gonorrhœal pus. The importance of this case consisted in it being the first observation of the disease arising from the lochia of an alleged perfectly healthy person. If it were an accurate observation, it would tend to modify our views as to the specific character of ophthalmia neonatorum. In order to test the correctness of Schirmer's conclusion Zweifel made the following experiments: By means of a fine glass pipette he conveyed lochial secretion from undoubtedly healthy persons, directly into the conjunctival sacs of infants, having previously made certain that there was no possibility of infection. Six such experiments were made, and although the secretion was taken at sundry times between the third and thirteenth day after delivery, and was consequently bloody, serous or purulent, the results were negative—ophthalmia was in no case produced. Two of the women from whom discharge was taken had previously suffered from leucorrhœa. These may appear somewhat hazardous experiments, but Zweifel trusted, on the other hand, to his conviction that pure secretion cannot possibly give rise to a specific affection, and, on the other hand, he confided in Professor Sattler's ability to cope with any attack which might follow the inoculation. These experiments afford strong confirmatory evidence of the specific nature of the affection, and tend to show that ophthalmia neonatorum arises from

gonorrhœal inoculation. In a supplementary note in a subsequent number (*Archiv für Gynäkologie*, Band XXII, 325), Zweifel reports that one of the children, with whose mother's discharge the experiment was made, had subsequently an attack of purulent ophthalmia which threatened to upset the above conclusions, but it turned out to be a case of diphtheritic conjunctivitis; the child's father having been laid up with diphtheria at the same time. Further, Zweifel thinks very justly that these results indicate in what cases the recommendation of Credé should be adopted, according to which a 2 per cent. solution of nitrate of silver is instilled into the eyes of new born children as prophylaxis. Since the disease is apparently specific, this treatment is quite unnecessary in private practice, in cases where there is no suspicion of any danger of infection. It is, however, a proper precaution in a lying-in hospital to employ Credé's treatment for all the children. It does no harm, and since its introduction into his institutions, no child has suffered from the disease.

The Prevention of Ophthalmia Neonatorum.—A recent number of the *Archiv für Gynäkologie* (Band XXII., Heft 2), contains an article on this important practical subject, by Dr. G. Krukenberg. Its object is to put before the profession the experience of the obstetric clinic at Bonn, with regard to the prophylactic measures recommended by Credé. During the six years preceding the adoption of these precautions, ophthalmia occurred in 7·3 per cent of the children born. In February, 1881, prophylactic treatment, after the method of Olshausen, was begun: that is, immediately after the birth of the head the eyelids were washed with a 2 per cent carbolic acid solution, and the conjunctiva mopped with a similar solution. This was practised till June, 1881, in which period 82 children were born, and 11 of them developed ophthalmia, or 13·4 per cent. This treatment therefore was a failure. In June, 1881, the method of Credé was adopted, with the modification that instead of a 2 per cent. solution of nitrate of silver in water, a vaseline ointment of the same strength was employed. The eyelids were, when possible, washed immediately after the birth of the head with a 2 per cent. solution of carbolic acid, and then the lids opened so widely as to expose the cornea, upon which a piece of the ointment was laid with a glass rod, and the lids then closed. The result has been that out of 703 children born up to November, 1883, only four have suffered from ophthalmia, or 0·56 per cent. In three of these cases Dr. Krukenberg believes that the child was infected subsequent to birth, from the fact that the disease did not appear till the 7th, 8th, and 9th days respectively. If this view be accepted, the percentage of ophthalmia caused during delivery is reduced to 0·14 per cent. The four cases all recovered well without injury to the cornea. Dr. Krukenberg discusses the respective advantages of the vaseline ointment and the watery solution. The vaseline adheres better, but he thinks the watery solution, which has only to be dropped in, safer in the hands of a midwife. Credé's own results, too, are a trifle better than those at Bonn, and therefore at the latter institution they adopted the solution in place of the ointment. The first case in which the solution was employed developed ophthalmia, which was cured by using the ointment.

The Rapid Artificial Ripening of Cataract.—The operation proposed by Professor Förster at the Heidelberg Ophthalmological Congress, in 1881, consists in performing a broad irideetomy, usually upwards, and, after all bleeding has ceased, making stroking or rubbing massage-pressure upon the cornea opposite the coloboma with the elbow of a strabismus hook or some similar smooth instrument. In properly selected cases, the partially opaque lens is observed to increase very rapidly in opacity. Dr. Stedman Bull gives (*New York Medical Journal*, May 24th) an analysis of thirty cases in which he has employed this method. He has found it especially applicable to the very slowly ripening cataract of middle life, and the immature senile cataract with yellow nucleus and cloudy cortex; and, with Förster, he recognises that the existence of a hardened opaque nucleus is essential to its success. Too strong a pressure may rupture the zonula and dislocate the lens; and short of this, it has sometimes produced "a striated or radiating opacity of the cornea, which seems to be confined to the anterior layers, frequently remains for a long period, and fades out but slowly." A rotatory rubbing or massage seems to answer better and to be more easily performed than the stroking from the centre to the periphery of the cornea recommended by Förster. In contra-distinction to the latter's experience, Dr. Bull has frequently observed a slight iritis follow the operation, but it is always amenable to treatment. Like Samelsohn, he has noticed that the opacity extends much more rapidly if the anterior chamber be absent for several days by reason of the external wound remaining open. The pain is very slight and the operation can almost always be done without an anæsthetic. In five of Dr. Bull's thirty cases, the operation was followed by a slight plastic iritis which readily yielded to ordinary treatment. In none was the zonula ruptured or the lens dislocated. In no case was an eye lost through the later operation for the extraction of the cataract. In three cases, ten per cent., the resulting vision was less than $\frac{20}{100}$. In ten cases, or 33⅓ per cent., the vision after extraction was $\frac{20}{40}$. In the remaining 17 cases the vision ranged between $\frac{20}{100}$ and $\frac{20}{40}$. In no case was the preliminary operation for ripening the cataract performed, except on account of an extremely urgent demand for the restoration of useful vision within as short a time as possible. The average duration of the confinement to house or hospital after the first operation was six days. The period occupied by the apparent complete ripening of the cataract after the preliminary operation varied between six days and five weeks. In no case was the extraction of the cataract attempted until four weeks had elapsed after the first operation.

Eye Symptoms in Disseminated Sclerosis.—M. Parinaud has recently (*Progrès Médical*, No. 32) summed up the result of his three years' investigations on this point. The symptoms are referable either to the external muscles, the iris, or the optic nerve. The *muscular* troubles consist of paralysis or paresis of the associated movements of the eyes; as a result diplopia is very common, especially in the early stages of a rapid case. Nystagmus is the most constant symptom resulting from this paresis of associated movements, and corresponds exactly to the trembling on voluntary movement so characteristic of the disease. Another common result is the vague expression, which is so often present, and is so typical. Ordinary paralyses, such as of the external rectus or ptosis, are by no means common. As regards the *iris*, inequality of the pupil is not uncommon in the early stages; later on, miosis is the rule, the reflexes both for light and accommodation being preserved and even exaggerated in some cases. This fact forms a most important point of distinction between the symptom in this disease and in locomotor ataxy, in which as is well known there is also miosis, but in which the light reflex is abolished. In sclerosis, then, the miosis must be looked upon in the nature of a contracture. The affection of the *optic nerve* results in three varieties of amblopia, all tolerably characteristic. In the first of these there is a lowering of the visual acuity, without any limitation of the field of vision, but there is some degree of dyschromatopsia as regards red and green, and this often constitutes the first sign of the disease. The ophthalmoscopic changes (if any) at this stage will be confined to a slight pallor of the temporal half of the disc. The second variety is ushered in more quickly, and there may be complete transient blindness, the dyschromatopsia is more marked, and the visual field is affected, the disc is markedly white. Even when the atrophy of the disc has reached an advanced stage, the blindness is hardly ever total, forming a striking contrast with what is seen in ataxy. The third form is more rare, the effect of sight is unilateral, is more marked, and more persistent. The field of vision is irregularly contracted, and there is no colour blindness, but atrophy of the disc is very marked.

The Cerebral Localisation of Homonymous Hemianopia.—In an interesting paper published in the *Boston Medical and Surgical Journal*, for May 22nd, three cases of homonymous hemianopia are reported by Dr. O. F. Wadsworth. As an accompaniment of other cerebral disorders, hemianopia is not uncommon, and in some cases is probably present without being recognised; but as an isolated symptom, appearing suddenly without paresis or

disturbance of sensation, it is infrequent; such, however, was its character in each of these three cases, in one of which it was discovered only accidentally during the routine examination of the field of vision. The patients were adults—a male aged 60, another aged 59, and a female aged 54 years. The left half of the field of vision was found to be wanting in each case: in all other respects the eyes and vision were normal. The paper is too lengthy to allow of its adequate condensation within these limits; but it may be stated that, after a careful examination of the some half dozen similar cases at present recorded, and especial reference to the two cases reported by Cursehmann (*Centr. für Augenheilk.* 1879, p. 181), and Haab (*Monatsbl. für Augenheilk.* 1882), in both of which there occurred simple left hemianopia, while the only cerebral lesion discovered *post-mortem* was situated in the right occipital lobe; referring also to Munk's experiments on animals (dogs and monkeys), and to the evidence furnished by the pathological anatomy of Huguenin's cases (blindness of the left eye from childhood in a man, death from pneumonia at æt. 53, atrophy of posterior median part of both occipital lobes, most marked on the right; almost total blindness of both eyes from childhood, death from typhoid at 43, and atrophy of corresponding parts of both occipital lobes); Dr. Wadsworth concludes from the absence of demonstration of a sufficient lesion within the tractus, and from the evidence afforded by such cases as those quoted, that it may be assumed that "when homonymous hemianopia occurs as an isolated defect, the seat of injury is to be found in the occipital lobe." Dr. G. Hay points out that such a position of the visual centre, so remote from the eye, is consistent with the doctrine that something more than the eye itself is concerned in vision; that light and colour may perhaps have some special relation to the retina, while the conception of form and distance is more intimately associated with another part of the nervous apparatus.

Hysterical Blindness Cured by an Imitation Magnet.—Dr. Harlan's patient suffered with hysterical uniocular blindness with mydriasis and blepharospasm. After having been treated in different ways for some time, a Charcot magnet was finally applied, to see what effect it would have on a severe spasm of the face which was then present. It relieved the spasm and also improved the sight. The experiment was repeated several times and always with the same result. It was then decided to try the effect of an imitation magnet made of wood. With this the results were even better than with the real magnet. An hysterical affection of the elbow joint, which followed a fall during the course of the treatment, was also successfully treated with the imitation magnet.—*New York Medical Journal*, July 26.

Polycoria.—A lady, age 32, sought advice on account of compound myopic astigmatism. On examination five pupils were found, the largest being in the centre. After correction, V = $\frac{20}{20}$. This lady's father had two pupils in one eye, the lower one being divided into two by a band passing across it. In neither case had there been any failure of vision. Dr. Seely had studied a number of cases occurring in one family; in the instance which he had seen the patient eventually became blind with choroiditis.—*New York Medical Journal*, August 2.

GENERAL CORRESPONDENCE.

"ANTI-VACCINATION ARGUMENTS."

[To the Editor of the Medical Times.]

Sir,—Having been compelled by the State to consider the question of vaccination seventeen years ago, and having done my best ever since to find out the facts bearing on it, may I be permitted a few words of protest anent your leader of the 9th? Let us take the question of compulsion—"Do the benefits of vaccination justify its compulsory performance?" These words of yours fairly describe our main query. Naturally you occupy most space with other points; but other points we would gladly leave you to carry, if you would abandon compulsion. Further, compulsion is not necessary. It does not exist in Italy, in Belgium, and scarcely in France, save in the army. These countries will, in respect of small-pox, contrast favourably with England, where some thousands of parents are annually prosecuted under compulsion. I do not like to speak positively, but I feel clear that the incidence of small-pox is as great, if not greater, in England than in these freer countries. Thus the benefit of compulsion is not manifest. It is not from your own point provable. The only argument worth anything in its favour is, that it gives the supply of vaccine virus. Yet this is managed in all the countries named without compulsion; and as Dr. Boëns says, "according to us, all governments should abstain from taking sides in favour of, or against any scientific theories which are not yet actually demonstrated, incontestable, or universal." The abolition of compulsion would leave us as we were in 1850; and the fifty years of the century, up to that time, were not marked by more extraordinary small-pox epidemics than those since. And I again point to Belgium and Italy as proof that compulsion cannot be justified. Picture abolition abandoned—no one would be prevented from adopting vaccination, and probably for some time, something under half of the births would be vaccinated. The doctors' influence, however, would be far more powerful than it is now. And if you confess to the need for justifying compulsion, a strong case must be shown. This cannot be done. Our own English experience is surely enough; and it does not justify compulsion. Ninety-two per cent. of the Highgate small-pox patients are confessedly vaccinated. Seventy-five per cent. of the many thousands of London patients are vaccinated, without doubt. If English experience does not justify it, foreign cannot. The figures respecting the French and German armies are fabricated. You should not use them after Dr. Carpenter has publicly withdrawn them (*Daily News*, January, 1883). Dr. Flinzer's need confirmation; for of 2,400 patients, at Cologne, only 49 were non-vaccinated, and 2,351 vaccinated or re-vaccinated, 1870-1-2. But, as I said, we deal with England where compulsion exists. Here prove your case. You speak of Dr. Boing, of Germany. This error is indicative of the carelessness which you show in respect of our contention. You, no doubt, mean Dr. Hubert Boëns, a very talented Belgian member of their Royal Academy of Medicine, whom I have quoted. Examine our case. We ask for freedom from cow-pox, as from all self-inflicted ills. Freedom to use our judgment to the best of our knowledge. At present we believe health better than disease, be it cow-pox, small-pox, or any other ill. You, if you advocate compulsion, must degrade healing into diseasing. This we deplore, and hope to alter.

I am, Sir, yours &c.,

ALEX. WHEELER.

Darlington, August 17th, 1884.

[Before a man ventures to charge a writer with carelessness and ignorance he would do well to find out whether the ignorance is not on his own side. We know, what Mr. Wheeler does not, the difference between M. H. Boens, the Belgian who writes in French, and H. Böing the German who writes in his native tongue, and we recommend to Mr. Wheeler's careful study the article by Dr. Böing in the *Deutsche Vierteljahrschrift für öffentliche Gesundheitspflege*, 1882, Heft 4. together with the crushing exposure of the fallacies and misrepresentations contained therein by Dr. Lotz, in the same number of that invaluable periodical, and one by Dr. L. Voigt in the first number of the following year. If Mr. Wheeler will give us facts and figures we should doubtless be able to do for him as Lotz has for Böing (not Boens!), but he deals only with assertions. The few figures he does give are easily disposed of. Seventy-five per cent. of the small-pox cases in certain hospitals, and ninety-two per cent. in one were vaccinated. Perhaps they were after a fashion, but did we not say that the effect of even a thorough vaccination wears off in time, and of imperfect and insufficient vaccination in a very short time? Again, will he give us the mortality in each

elass? or explain the immunity of the attendants with the exeeption of such as refuse to be re-vaeeinated? Will he explain the ehange that has come over the scene in Berlin and Hamburg sinee vaecination, from being far from general and rarely performed before school age, has been made compulsory and universal as far as human power can make it? He does not give any statisties of France, Italy, and Belgium, but if he did it would be manifestly unfair to compare a densely aggregated population like that of London with the scattered populations of those countries. We should not compare London or Paris with Wales or Ireland, as we have compared Berlin with Vienna, and would fearlessly compare it with other towns of a million or so inhabitants. We should be grateful to Mr. Wheeler for the small-pox mortality of Belgium in the epidemic period 1870-73, since he declines to notice the results we gave of optional and compulsory vaccination at that time in the neighbouring kingdom of Holland and in Bavaria. We should have thought that the contrast between a mortality of 593 per 1,000 under five years of age under the former system, and of 44 per 1,000 under the latter, these 44 being largely composed of children *not yet vaccinated*, would be considered pretty satisfactory. We have not seen Dr. Carpenter's repudiation of the figures, which we gave on *French* authority, as to the mortality in the French and German armies, but we shall not fail to enquire into it. Our position is quite strong enough to dispense with any questionable figures. It suits Mr. Wheeler no doubt to cast suspicion on Flinzer's statisties, though neither Böing (not Boens) nor Vogt (not Voigt), with better opportunities than he, have attempted to dispute their accuracy. On the contrary, they thought it more prudent to ignore altogether eight of his fourteen tables and to play such tricks with the others as that to which we alluded, viz., reckoning all those persons who having had small-pox were most thoroughly protected with the unvaccinated, in order to bring down the mortality among the latter to something like that which obtained among the vaccinated! Our complaint against the anti-vaccinators is that they refuse to meet us in fair argument, either, like Mr. Wheeler, ignoring facts and dealing in mere assertions, or, like Pearce, Böing, and Vogt, falling into, or we fear deliberately availing themselves of, one or other of the various fallacies with which students of vital statistics are painfully familiar.

Ed. *Medical Times*].

MR. LAWSON TAIT'S CASE OF ENTEROTOMY

[To the Editor of the Medical Times.]

Sir,—In reference to a letter signed "F.R.C.S." in your impression of August 9th, I think it only just to state that, in the case spoken of, which was under my care as a private patient, the symptoms were those of complete intestinal obstruction, neither fæces nor flatus passing per rectum for about ten days; there was constant stercoraceous vomiting, and all the signs of impending death from exhaustion; the treatment by opiates did not allay the symptoms. I certainly think the operation was justifiable as the only chance of life. Perhaps it will not be out of place whilst writing on the above case to point out the error of "An Anatomist," in thinking that a tumour ten times as large as the one spoken of (three inches by four inches) would be 30 inches by 40 inches. Let "An Anatomist" try how many oranges of the former size he would be able to get into a bag of the latter dimensions. I believe it would be just 100 and not ten.

Yours, &c.,

Matt. Hall-Wright, M.R.C.S, &c.

Hayley Road, Birmingham.
August 19, 1884.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 14th, 1884:—

Frank Charles Butt, St. Margarets, Richmond; Jno. Edward Gemmell, 17, Queen Street, Waterloo, Liverpool; Samuel Hughes, 6, Princes Road, Liverpool; Henry William Martindale Kendall, Renfrew, Bexley Heath; Robert Chambers Priestley, 17, Hertford Street, May Fair.

Royal College of Surgeons in Ireland.—At a meeting of the Court of Examiners, held on August 12th and following days, the undernamed gentlemen passed their several examinations for the first professional examination for the Letters Testimonial of the College under the new scheme viz.:—

John Abbott, William P. Barter, Alfred W. Bewley, Shenstone Bishop, Charles E. Boyce, John J. Byrnes, Stafford M. Cox, William Cremin, James Crumley, Edwin T. Cummings, Roland Delaney, William H. Doran, John D. Ferguson, Daniel F. Finucan, Robert A. Flynn, Edward Frazer, John F. Greene, William R. Gore, William R. Graves, Eugene Glynn, Richard J. Hewitt, Robert E. Hickie, Charles L. Hughes, Richard B. Hunt, George A. Johnston, Peter P. Keane, Laurence E. Keegan, Victor E. Ludlow, Charles J. Lyons, Michael Mahony, Joseph F. Mannix, John R. Meek, Henry M'Dermott, John M'Ginn, John Mulqueen, Denis P. Murphy, James O'Connor, Peter O'Dwyer, James O'Rafferty, Eugene P. Pentony, John H. Reynolds, Charles R. Scott, Michael Shanley, Thomas A. Sheahan, Laurence Skelly, Laurence Slevin, John B. Spearing, John Stewart, Thomas W. Talbot, Timothy T. Teahan, James Trant, Wilford P. Wynne.

Twenty-seven were stopped. The College is now closed for the autumnal recess until October next.

Royal College of Surgeons.—The library of this institution will be closed as usual on Monday the 1st proximo, for the usual dusting and cleaning, and be reopened on Wednesday, October the 1st.

Congress for Criminal Anthropology.—Among the almost innumerable congresses occurring at this time of the year, it is announced that one will be held at Turin, from 25th September to October 1st, at which subjects relating to criminal anthropology are to be discussed, and criminals will be chiefly regarded from the psychical and organic point of view. It is warmly supported by the profession in Italy.

Charitable Bequests.—The late Mrs. Armitage, of Redcliffe Square, has bequeathed 200*l.* each to the Charing Cross Hospital, and the Hospital for Hip Disease in Queen's Square. The late Mr. Nutter, of Halifax, has left 1,000*l.* each to the Halifax Infirmary and the General Infirmary, Bradford; 500*l.* each to the Bradford Fever Hospital and the Ripley Convalescent Home; and 100*l.* each to the Eye and Ear Infirmary, of Bradford, and Ilkley Bath Hospital.

Proposed Fever Hospital at Alcester.—It has been proposed to establish a fever hospital at Alcester, as a memorial to the late Marquis of Hertford, and a meeting was held at Leamington a few days since at which, on the motion of Lord Leigh, seconded by Mr. W. Willes, it was resolved to carry out this project, and an influential committee was appointed to receive subscriptions and take such other steps as were needful. Several subscriptions have been received, and it is hoped that the 1,500*l.* or so which is required will speedily be found to complete the work.

Guy's Hospital Medical School.—The following medals and prizes have been awarded:—The Treasurer's Gold Medal in Medicine, Albert Martin, M.B., Wellington, New Zealand; the Treasurer's Gold Medal in Surgery, George E. C. Anderson, Oudtsboorn, Cape Colony; the Mackenzie Bacon Prize for Ophthalmoscopy, James Henry Targett, M.B., Idmiston, near Salisbury; the Mackenzie Bacon Prize for Nervous Diseases, William Leonard Braddon, Upton-on-Severn; the Burdett Prize for Hygiene, Hubert H. Du Boulay, Winchester; Fourth Year's Students, George E. C. Anderson, Oudtsboorn, Cape Colony, First Prize, 25*l.*, William Leonard Braddon, Upton-on-Severn, Second Prize, 10*l.*; Third Year's Students, Frederick Lever, Epsom, First Prize, 25*l.*, Sidney Watcher,

Canterbury, Second Prize, 10*l.*; Second Year's Students (Joseph Hoare Prizes), Henry, W. Drew, Southwark, First Prize, 25*l.*, Fridiric Francois Burghard, Kensington, Second Prize, 10*l.*; First Year's Students, Ernest Henry Starling, Bombay, First Prize, 50*l.*, Guy Bellingham' Smith, Lee, Second Prize, 25*l.*

Improved Ambulance Vans.—With the view of avoiding risk of contagion in the conveyance of patients suffering from small-pox or contagious fevers to hospitals, Dr. Gayton, Senior Medical Officer of the Metropolitan Asylums Board, has constructed an ambulance van of new and improved form. Instead of having open glass and wooden louvre shutters, its apertures consist of a double layer of perforated metal, enclosing an absorbent material saturated with an acknowledged germicide or destroyer of the minute microscopical particles which tend to propagate disease. Fresh air is admitted through modified and improved "Tobin" ventilators of a horn shape, with the larger end opening externally, whilst inside the van the smaller extremity of this air-tube is provided with a disinfecting air-chamber, constructed like those attached to the other apertures or windows. The Metropolitan Asylums Board use these ambulances for conveying small-pox convalescents from Hampstead to their river wharf, *en route* to the hospital ships off Purfleet.

Society of Public Analysts.—This society held their annual country meeting at the Royal Hotel, Mattock, Derbyshire, on Saturday, under the presidency of Professor Cameron, of Dublin. The subject discussed was "Milk Adulteration." A paper by Mr. Allen, of Sheffield, advocated the addition of twice its weight of alcohol to every sample of suspected milk which had to be produced in court under the provisions of the Adulteration Act. Samples of milk, when kept for several weeks, were often found to be in such a state that the Government analysts at Somerset House could not properly analyse them, and hence differences of opinion arose between them and the public analysts. The general opinion of the meeting was in favour of a milk standard being adopted by Act of Parliament. The proceedings terminated with a dinner.

The Writings of the late Dr. Farr.—It has long been felt that the works of this most eminent statistician, and especially those bearing on vital statistics, were much too valuable to be left in a scattered condition, and a movement, which will commend itself to all students of statistics, is being made by the Sanitary Institute of Great Britain to bring together Dr. Farr's official reports and papers in a volume of some 400 pages, and publish them by subscription, if a sufficient number of subscribers should come forward to justify the expense. Mr. Noel Humphreys, F.S.S., of the Registrar-General's Department, has been entrusted with the selection and editorship; and it may safely be anticipated that so valuable a work, which indeed may be said to form the basis and text-book of our knowledge of vital statistics, will not be allowed to halt in its way towards completion.

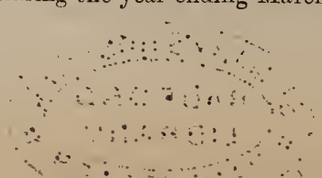
Hospital Saturday Fund.—In anticipation of the recurrence of Hospital Saturday on the 6th of September next, the board of delegates have appealed to the employers of labour in London asking them to remind their workmen of the claims of the metropolitan medical charities upon their liberality, and pointing out that the London hospitals alone contain over 5,000 beds, many of which are unoccupied for want of funds, while more than 1,000,000 of the labouring classes of the metropolis annually receive the gratuitous relief afforded by these institutions. The Board point out that by the development of the existing system of having a collector in each workshop and business establishment of the metropolis ready to undertake the responsible duty of receiving the workfolks' pence periodically and pay it into the central office of the fund, 41, Fleet Street, at least a million of London workpeople can afford a half-penny weekly each towards the support of the hospitals and dispensaries of London, and in this way it is estimated that over 100,000*l.* could be raised.

The Dublin Hospitals.—The twenty-sixth report of the Board of Superintendence of the Dublin Hospitals, just issued, states that during the year ending March 31st, nine hospitals were inspected in a very careful way. The general arrangements and the domestic economy of the several institutions were closely considered in every respect, and statistics made with respect to the following particulars:—The several sources from which income is derived; the expenditure in detail in respect to maintenance and establishment; the admissions, discharges, deaths, the average daily number in hospital during the year, the average sojourn of each patient in hospital, the extent of accommodation, &c.; the average cost per bed occupied throughout the year for maintenance and for establishment, exclusive of building and furnishing such building. On the 1st of April, 1883, there were 815 patients in the hospitals. During the year 9,560 patients were admitted, the total number under treatment was 10,375, of whom 9,226 left cured, relieved, or dismissed; 433 died. The mortality was 4·69 per cent. The total daily average of beds occupied was 746·84. A perusal of the reports respecting the various hospitals shows that these institutions are in a very excellent condition. There are no complaints of any serious kind, and there is much to indicate that the authorities of Dublin hospitals are ready to march with the times and adopt all modern expedients which may tend towards the comfort and well-being of the patients.

Cheese Poisoning.—Dr. Vaughan in a report to the Michigan State Board of Health on numerous cases of cheese poisoning, which occurred at four separate outbreaks in May and June, and were attended with severe symptoms, observes that analysis had found that no mineral poison was present in the cheeses which were eaten and which had all the appearance of a sound article. On being cut, however, a whitish acid fluid oozed out from their pores, in which microscopic organisms were detected. About 163 persons suffered, but they all recovered. Many similar occurrences have been recorded both in Europe and America, but no light has hitherto been thrown upon the cause of the cheese becoming poisonous. In this instance, the poisonous cheese had been manufactured at the same time and the same way as other cheeses which gave rise to no complaint. Good cheese is very slightly acid and is slow in reddening litmus, but a freshly cut surface of the poisonous cheese reddens it almost instantly. This would form a test of easy application by any seller of cheeses.

Paper Towels for Surgical Purposes.—In the surgical dispensary of the Philadelphia Polyclinic, Dr. Roberts has been using, with much satisfaction, Japanese paper handkerchiefs for drying wounds. Sponges are so seldom, and with such difficulty perfectly cleansed after being once used, that they are never employed in the clinic. Ordinary cotton or linen towels are much preferable to sponges, which, if dirty, are liable to introduce septic material into wounds. The paper towels, however, answer the same purpose as cotton ones, and are so cheap that they can be thrown away after being used. They cost from six to seven and a half dollars per 1,000, and the cost of washing a large number of ordinary towels is thus avoided. The paper towels are scarcely fit for drying the hands after washing, unless several are used at once. For removing blood from wounds, a paper towel is crumpled up into a sort of ball, and then used as a sponge. Such balls absorb blood rapidly.

The Treatment of Cholera by Ozone.—The antiseptic treatment is admitted to be the most rational line to follow in a case of cholera, but as we are ignorant of the exact nature of the agent of cholera, and of the conditions under which it flourishes, M. Romain Vigouroux points out (*Progrès Medical*, July 19th) that we ought to seek for an antiseptic whose sphere of activity is wide, and whose destructive action is brought to bear indiscriminately upon all parasitic organisms. Ozone has pre-eminent claims to be considered as having such properties, and its powers have already met with some recognition. The experiments of M. Chappuis demonstrated that ozone neutralises all the germs contained in the air, and further that the essences of the volatile oils owe their undoubted properties to the production of a certain quantity of ozone. All the ozone-producing apparatus in use at the present day is based on the fact that the electric discharge has the power of partially converting oxygen into ozone. The



ordinary electric machine in use for electro-therapeutics would be most suitable for the preparation of the ozone; the patient could be placed on an insulating stool and charged with the ozone. This line of treatment would have the advantage of improving the general nutrition and increasing the vital powers at the same time, and M. Vigouroux concludes his paper by expressing the belief that in electricity we probably have the most efficacious remedy against cholera yet known.

Professor Czerny's Surgical Clinic.—A correspondent of the *Philadelphia Medical News* writing from Heidelberg, furnishes some particulars of Professor Czerny's clinic. Heidelberg and its surroundings supply an immense number of surgical patients, the bulk consisting of cases of club-foot, diseased joints, cancer, lupus, and tumours, and Czerny often operates for ovariotomy. In club-foot he seldom performs tenotomy, but forcibly straightens the foot, and retains it in its position by plaster of Paris bandage. Much plastic surgery is done, *e.g.*, covering erosions from lupus or epithelioma, or building a nose with healthy integument from the forehead. The results are excellent, and sloughing is rare. Almost absolute cleanliness and disinfection are the remarkable features of the clinic. The latter is practised in every department in detail, *e.g.*, in resection of the elbow the part is well-soaped and shaved, and washed with a 1 to 3 per cent. carbolic solution. Professor Czerny, then, with well-disinfected hands and instruments, removes the dead bone, washes out the wound with the bi-chloride (1 to 2 per 1,000), and sews it up. He next introduces some bone drainage-tubes, packed round with gauze, holding powdered iodoform, put up in bags of wood-wool disinfected by carbolic or bi-chloride solution, the whole being bound up with disinfected bandages. The joint is then left at rest for ten days, unless pain, bleeding, or fever occurs. Infrequent dressing is a strong feature of the clinic. In major operations, ovariotomy. large joints, openings, &c., he uses spray. His therapeutic measures are essentially cleanliness, carbolic and bichloride solutions, quinine in large doses, and the liberal use of powdered iodoform. His results are very good, as he attends religiously to the minute details. Professor Czerny is about 45 years of age, with dark hair and broad shoulders. He has an energetic twinkle in the eye, and is genial and good-humoured. He is a demonstrative instructor, a man who talks to the point, and an original operator. His fame rests mainly on successful and original abdominal surgery. He is very kind and instructive to foreign doctors, and speaks good English.

Lady Hospital-Internes. — The *Revue Medicale*, August 2, is somewhat aghast at the news which has reached it that lady candidates are about to be allowed to contest in the *concours* the posts of *internes des hôpitaux* so prized and so fought for by the Paris Medical Students, "Can that be true?" it exclaims. "It is at all events probable enough, seeing the wind of folly which propels the administration of the *Assistance Publique*. By diverting attention to such phantasmagoria, it may delay the great reforms and innovations demanded, while who has ever heard of such a proposal as to convert young ladies into internes? In spite of the youthfulness of the present occupants the waiting-rooms of the internes are not very cheerful rooms, which no doubt is due to the influence of the surroundings, for they are often low and badly lighted places, the administration only handing over to the doctors apartments, which other employés decline to make use of. But all is to be changed, for rays of light are about to inundate these abodes with the free entrance of women. It is even said that the internes have warmly supported this movement of the administration, on the plea that during their watchings and waitings an element of gaiety has become indispensable to them."

A Lithographed Medical Journal.—The most unique medical journal at present published is probably *Le Journal Médical Quotidien*. It is published daily in Paris. All the matter is written out in excellent script and this is then lithographed. The journal is therefore autographic.

THE ALLEGED CASE OF ASIATIC CHOLERA IN BIRMINGHAM.

Dr. Saundby, of Birmingham, has had the kindness to send us the following telegram. From inquiries I have made, it appears that the subject of the alleged case of cholera was a man named Rolfe, a powerfully-built healthy man, aged 47, living in a court in Bishopsgate Street, in St. Thomas's Ward. He was a wheelwright by trade, and was at work on Friday. That night, about half-past twelve, he was attacked with severe sickness and diarrhœa, but did not obtain medicine till the following morning and was not seen by a doctor till Saturday evening. Dr. Richards, who saw him, states that he was then suffering from diarrhœa, with cramp in the abdomen. About midday on Sunday Mr. Hoskins found him collapsed, with severe cramps in the calves of his legs, and very cold. He used strong stimulants and counter-irritants, but could produce no reaction. The man died on Monday evening about 6 o'clock. Mr. Hoskins states that the purging and vomiting ceased after his first visit. Dr. Hill, the Medical Officer of Health, has ascertained that the deceased had been eating a quantity of tainted ham which he had bought cheaply. He also states that he house was free from sanitary defect, except that the sink communicated directly with the drain. There were no other cases of serious diarrhœa on the same premises, and the deceased had had no communication with those countries in which cholera is epidemic. Dr. Waterson, who inspected the body twenty-four hours after death, states that rigor mortis was well marked, the eyes were not sunken, the face was calm, and not at all like the characteristic facies of cholera. Mr. Hoskins says he never authorized the use of the term Asiatic Cholera, but he believed it was a bad case of cholera of sporadic origin. Dr. Hill and Dr. Waterson believe it to have been simply a severe case of diarrhœa, which is now prevalent. The duration of the case, its history, and the surrounding circumstances leave no room to doubt this statement. That it was a case of Asiatic Cholera is absolutely without foundation.

APPOINTMENTS.

Brew, T. F., F.R.C.S.I.—Medical Officer to the Workhouse, Ennistymon Union.

Duffus, George, M.B., C.M. Aberd.—Assistant Medical Officer to the Cheshire County Lunatic Asylum, Macclesfield.

Godwin, Henry, L.R.C.P. and L.R.C.S. Edin.—Medical Officer to the Bovey Tracy District, Newton Abbot Union, *vice* Mr. A. H. N. Lewers, resigned.

Greensill, John Nicholas, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Workhouse, Martley Union, *vice* Mr. E. S. Greensill, resigned.

Guy, William, L.R.C.P., L.R.C.S. and L.M. Edin.—Medical Officer to the Gosforth District, Whitehaven Union, *vice* Dr. C. A. Parker, resigned.

Jones, T. W. C., M.A. Cantab., F.R.C.S. Edin.—Assistant Surgeon to the Western Ophthalmic Hospital.

King, E. E., M R.C.S., L.S.A.—Resident Obstetric Physician to the Middlesex Hospital.

Rowlands, Hugh Pugh, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer for Llanegryn District, Dolgelly Union, *vice* Mr. J. F. Jones, deceased. Also, Medical Officer to the Towyn District, Machynlleth Union.

Travis, W. O., M.S., M.B. Durh., M.R.C.S. — Demonstrator of Anatomy in the Yorkshire College, Leeds.

VACANCIES.

Charing Cross Hospital.—Chair of Physiology. (*For particulars see Advertisement.*)

Dunmow Union.—Medical Officer to the Hatfield District, *vice* Mr. C. G. Firman, resigned. Area, 14,537 acres. Population, 3,193. Salary, £95 17*s.* per annum.

General Hospital for Sick Children, Pendlebury, Manchester.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary, £70 per annum, with residence and maintenance in the house. Candidates must possess a Medical and Surgical qualification from one or more British Colleges or Institutions, recognised under the Medical Act. Applications and copies of testimonials to be addressed to the Chairman of the Committee, not later than August 29th.

QUEEN'S COLLEGE, CORK.—Professorship of Materia Medica. (*For particulars see Advertisement.*)

RHAYADER UNION.—Medical Officer to the Rhayader District and the Workhouse, *vice* Mr. Richard Richardson, resigned. Area, 94,261 acres. Population, 4,670. Salary, £55 per annum. Salary for Workhouse, £20 per annum.

ST. BARTHOLOMEW'S HOSPITAL.—Dental Surgeon. Applications with Testimonials must be left, on or before September 4th, at the Clerk's office. Further particulars from Wm. Henry Cross, Clerk.

THE GENERAL HOSPITAL, BIRMINGHAM.—Resident Registrar and Pathologist. (*For particulars see Advertisement.*)

UNIVERSITY COLLEGE, LONDON.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, ETC., 73, WELBECK STREET, W. — Physician. (*For particulars see Advertisement.*)

DEATHS.

DANIEL, JAMES STOCK, F.R.C.S., at Ramsgate, on August 14th, aged 80.

KEMPTHORNE, J., F.R.C S., of Callington, Cornwall on August 18th, aged 62.

MCCULLOCH, D. M., M.D., late Medical Superintendent Joint Counties Asylum, Abergavenny, at Wimpole Street, on Aug. 13th.

SCRASE, GEORGE, M.R.C.S., at Lewes, Sussex, on August 15th, in his 81st year.

STEEL, C. W., M.R.C.S., L.S.A., at Southfield, Lewisham, on August 16th, aged 73.

NOTES, QUERIES, AND REPLIES.

M. B.—The continuation of Dr. Gairdner's Lecture will appear shortly.

COMMUNICATIONS RECEIVED—

Dr. CHURCHILL, London; Dr. CURNOW, Penzance; Dr. KNUTSEN, London; Mr. CLARK BELL, New York; Mr. K. STICKELBERGER, Allassio; Dr. JOHN SPEIRS, Glasgow; Mr. J. T. W. BACOT, Seaton; Dr. H. F. BANHAM, Bournemouth; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. J. W. COUSINS, Portsmouth; Mr. ALEX. WHEELER, Darlington; Dr. F. T. ROBERTS, London; Mr. FRANCIS SCOTT, Edmonton; Dr. HERMAN, London; Dr. WILLOUGHBY, London; Mr. STONE, London; OUR VIENNA CORRESPONDENT; Mr. G. S. GIBBS, Darlington; Prof. MONCORVO, Buenos Ayres; THE REGISTRAR-GENERAL, Edinburgh; OUR PARIS CORRESPONDENT; Dr. CLIFFORD BEALE, London; Mr. G. H. MAKINS, London; Dr. SHELLY, Hertford; Dr. WOLFE, Glasgow; Mr. CHATTO, London; THE REGISTRAR-GENERAL, London; Mr. J. LAWRENCE-HAMILTON, London; THE JAPANESE COMMISSIONERS, HEALTH EXHIBITION, London; THE SECRETARY OF GUY'S HOSPITAL MEDICAL SCHOOL, London.

BOOKS RECEIVED—

Sandefjord Sulphur Bath, by Dr. C. A. Knutsen—Lehrbuch der Physiologie, von Dr. A. Gruenhagen—Army Medical Department, Report for the year 1882—On Tumours of the Bladder, by Sir Henry Thompson, F.R.C.S., M.B. Lond.—How to Prevent and Oppose the Cholera—Alcohol and its Use by Healthy Persons, &c., by James Startin—De La Répartition du Sang Circulant Dans L'Économie, par le Docteur Émile Spehl—Lectures on Mental Disease, by W. H. O. Sankey, M.D., F.R.C.P.—Contribution à L'Étude De La Sclérose Multiloculaire chez les Enfants, par le Docteur Moncorvo—Da Dilatação Do Estomago Nas Creanças, pelo Dr. Moncorvo—De La Nature De La Coqueluche et de son Traitement Par La Résorcine, par le Docteur Moncorvo—The Purification of Coal Gas, &c., by R. P. Spice, M. Inst. C.E.—Discours Sur Le Choléra, par M. le Dr. J. Bonnafont—The Dress of Women and Children, by Francis Vacher—On the Vital Statistics of the City and Principal Wards of Liverpool, by E. W. Hope, M.D., B.Sc.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal — — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin — Philadelphia Medical News — Le Progrès Médical—New York Medical Journal—New York Medical Record —The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften — Berliner Klinische Wochenschrift — Louisville Medical News — The Medico-Legal Journal — Weekblad — Maryland Medical Journal — Revista Internazionale—Revue de Chirurgie—Revue de Médecine—The Evening Post, New York, August 4th—The Vaccination Enquirer —Jornal do Commercio—The American Journal of Obstetrics— The Sheffield Daily Telegraph—North Carolina Medical Journal— The Journal of the British Dental Association—The Medical World—Philadelphia Medical Times.

APPOINTMENTS FOR THE WEEK.

Friday, August 22 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, August 23.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, August 25.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, August 26.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, August 27.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, August 28.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES

AND GAZETTE.

No. 1783. LONDON, SATURDAY, AUGUST 30. 1884.

Contents.

INTRODUCTORY ADDRESS AT THE OPENING MEETING OF THE EIGHTH INTERNATIONAL MEDICAL CONGRESS.[1]

By PROFESSOR PANUM.

[Abstract].

AFTER expressing the gratitude that he and his colleagues felt to His Majesty, the King of Denmark, for honouring their meeting with his presence, Professor Panum addressed a few words of hearty welcome to the strangers from all quarters of the globe, and then proceeded to trace the history of the congress.

The idea of an International Medical Congress had originated with M. Gintrac, who, at the meeting of the third annual Medical Congress in France, at Bordeaux, in 1865, had suggested the desirability of making the International Exhibition, which was to be held at Paris in 1867, the means of bringing together medical men from all parts of the world. This was no sooner proposed than it was unanimously agreed to, and the French Annual Congress was merged for the year 1867 into the Congress of Paris. It was resolved that the meeting should be purely for scientific purposes, and a committee was appointed, with M. Bouillaud for chairman. This committee issued and scattered broadcast a series of seven questions relating to anatomy, physiology, pathology, surgery, medicine and hygiene. The congress was under the patronage of the Minister of Public Instruction, and its international character was shown in the nomination, as honorary members, of several members of the diplomatic body, besides delegates from some of the governments and learned societies, and the appointment of six vice-presidents from foreign countries as well as six from France.

At the second sitting of this congress, Dr. Pantaleoni expressed, in the name of his fellow-countrymen of Italy, the hope that that international gathering was but the first of a long series of such meetings. This was followed by a proposal that the next meeting should be wherever the International Exhibition was being held, but this was not agreed to, as it was thought better to try and see whether a really international medical congress could not be a success without the attraction of an international exhibition at the same time. Florence was accordingly chosen for the second congress, in 1869, possessing in its skies and its art treasures far greater attractions than an international exhibition. In the evenings an excursion to the royal baths at Montecatani, and a splendid banquet

[1] Delivered at Copenhagen, on August 10th, 1884.

due to the hospitality of the medical men and townsmen of Florence, contributed in no small degree to increasing and cementing the international relationship of the members of the congress.

The third congress, delayed a couple of years by political events, was held at Vienna, in 1873, the year of the great exhibition there. Its organisers departed in several respects from the footsteps of their predecessors. The propositions to be discussed at the congress were drawn up solely by the physicians of Vienna, and not by a committee chosen from foreign countries as on the previous occasions. The committee decided on the official nomination of a number of delegates from the governments of the different countries, and appointed presidents and vice-presidents from other countries to direct the discussions. Relying on the promise of pecuniary support from the government, the committee declined any contributions from their members, with the result that the transactions had to be published out of the funds of the succeeding congress. Several notable advances were however made at this congress. One was concentrating into one week what had occupied two weeks previously, another was their courtesy in allowing the discussions to take place in other languages than the German, and finally the allowing foreigners to take the chair and direct the discussions.

The fourth congress was held at Brussels. Here the organisation of the congress was entirely remodelled by the institution of sections for the various branches of the medical sciences, by which means the interest of those attending, the number of the sittings, the time devoted to work, and the scientific results of the congress were much increased. Here too was first introduced the custom of exhibiting new instruments, as also the plan of excursions to places of interest in the neighbourhood. The congress was favoured by the presence of His Majesty the King of the Belgians at the opening ceremony. Another change was the nomination of honorary presidents of the congress, and of honorary vice-presidents of the sections, who by the way very seldom had anything to do. The mistake, however, was made at Brussels of attempting to decide questions of scientific interest, by voting on them, which was contrary to one of the laws of the congress passed at the Paris meeting.

The three following congresses had completely adopted the arrangements set on foot in Brussels, though in the matter of detail, at each the customs of the city led to certain differences. The number of inhabitants of the country and town evidently bore some proportion to the number of members of the congress. At Paris about 1,200, at Florence 357, at Vienna 671, at Brussels 412, at Geneva 365, at Amsterdam 630, and at London 3,181 members were present.

The size and magnificence of the ceremonies, the dinners and the excursions had increased in proportion to the wealth of the towns and had culminated in London in such a pitch that it would be madness to wish to attempt to imitate them in Copenhagen. They had no such ambition. On the contrary, they believed that it was neither by the number of the members nor by the festivities that the value of the congress could be measured. They had even thought that the development of too great a luxuriousness might prove a source of danger to the congress in the future, and that the need of greater frugality had been one of the reasons why Denmark, well known as a small and poor northern country, had been chosen as the seat of the congress.

The congress at Geneva had the credit of having re-established the Paris plan of having contributors from foreign countries, and in this they had been followed by Amsterdam and London. For their own part they had tried to get as many foreign contributors as possible, and had circulated amongst the leading men of the day some two hundred suggested subjects. The Geneva Congress had rendered prominent the importance of the natural sciences in relation to practical medicine, a relationship which had received further development at the subsequent congresses. The Geneva Congress had, however, made the mistake of reducing the number of sections to six, but at Amsterdam they were restored to nine, and at London this number was increased to sixteen. They had decided to reduce this number by two, leaving out the Section of Pharmacology, and also the Dental Section, these subjects being merged into the other sections. In order to secure success for so great a number of sections, they had determined to make use of the active assistance of the honorary presidents to rule over the various discussions already agreed upon. They had tried to profit by the experience of their predecessors in order to obtain the best possible results. "It will be," said Dr. Panum in conclusion, "for future congresses to continue the progressive development of this international institution, to the advantage of science, of suffering humanity, and of a brotherly alliance of the physicians of all nations in a sacred work, one far above the barriers of languages, and beyond the rivalry of nations."

THE BRADSHAWE LECTURE
ON
THE PATHOLOGICAL RELATIONS OF THE ABSORBENT SYSTEM.

By GEORGE HARE PHILIPSON, M.A., M.D., D.C.L., F.R.C.P.

Professor of Medicine in the University of Durham; Senior Physician to the Newcastle-upon-Tyne Infirmary, &c.

(*Concluded from page* 249.)

THE lymphatic vessels are subject to two principal classes of tubal changes, namely, dilatation and hypertrophy, and obstruction. Dilatation may affect the capillary network of the lymphatics, more commonly the larger trunks; or occasionally the thoracic duct or the receptaculum chyli. It presents various degrees, and assumes different forms. Thus there may be merely a localised reticular dilatation of the lymphatic capillaries, or more frequently varicose, saccular, tubular, fusiform or cirsoid dilatation of the trunks; or the enlarged vessels may form a distinct growth, named lymphangioma or lymphangiectodes, which has been divided by Wagner into the three varieties, simple, cavernous, and cystoid, in which cysts are developed. Moreover, enlarged lymphatics constitute an important element in the structure of elephantiasis and other growths, especially elephantiasis lymphangiectodes. The thoracic duct and receptaculum chyli may be enormously dilated, the former, in extreme cases, reaching the size of the little finger, or even attaining larger dimensions than this. The deep lymphatics and the lacteals are liable to dilatation, as well as those on the surface. Lymphangiectasis is in many cases congenital, and it has been supposed that this may be due to the want of specialisation in the lymphatic system of certain parts. The condition is attributed to different causes. Thus it may follow lymphangitis, in consequence of which the larger tubes are blocked, and the afferent vessels become therefore dilated. In other cases it is not preceded by marked inflammation of the lymphatics, but there is considerable hypertrophy of the cellular tissue, and the vessels enlarge, forming a very free anastomosing network. Again, it is

supposed that dilatation may arise from mere hypertrophy of lymphatic plexuses, or from paralysis of the coats of the vessels. Any obstruction from internal plugging or external pressure may lead to enlargement of the vessels, the circulation through which is thus impeded, and probably the obstruction may be occasionally seated in the glands. Lymphatic dilatation is most frequently met with in warm and moist climates. When lymphangiectasis occurs on the surface of the body, it can be recognised by objective examination. Dilatation of the superficial lymphatics is generally observed on the inner side of the thigh, the sides of the abdomen, the scrotum, and the penis. It is characterised by vesicles like grains of sago, grouped irregularly (Curnow). Sometimes, only ampullæ are formed, which are generally soft and painless. The vessels may rupture subcutaneously, forming vesicles containing a clear or milky fluid. They are also liable to rupture externally, or into various internal parts when situated internally, and it is only thus that the latter can be at all recognised clinically, the escaped chyle or lymph appearing in the fæces or urine. Even superficial dilatation of the lymphatics has been not uncommonly mistaken for other conditions, such as hernia, abscesses, and strumous enlargement. The discharge of lymph confirms the diagnosis. If inflammation attacks dilated lymphatics, it tends to spread rapidly, and may prove fatal.

Multiple lymphatic nævi of the skin, a newly observed disease of the lymphatics, has been recently described by Hoggan. The condition is believed to be not uncommon, quite as frequent, perhaps, as venous nævi, which it often accompanies and complicates. It also forms the initial stage or predisposing pathological condition of other diseases, such as lymphatic varix of the larger vessels, and also of elephantiasis, in the production of which it may often be the most important factor. That this has not been observed before is probably due to the fact that no proper histological examination, as apart from microscopical, has been made of the tissues in the initial stages of the diseases. That the condition has not been recognised clinically, is probably due to the want of colour in such nævi, as compared with venous nævi. But there can be little doubt, from the frequency with which venous nævi have been observed in elephantiasis, that the two conditions of venous and lymphatic nævi are generally co-existent, and that conditions of hypertrophy, due really to the latter form, have, through being unrecognised, been erroneously ascribed to the former. On the other hand, when the lymphatic nævi were small, and placed so superficially in the skin that distension by lymph, produced at will, made them appear above the general surface, like vesicular papules: such a condition would almost certainly have been described as varicose lymphatics.[10]

The absorbent vessels may become obstructed. This condition may involve the lymphatic capillaries, their main trunks, or the thoracic duct itself. It may result from the blocking up of their channels by coagulated lymph, from inflammation of the walls of the vessels, or from external pressure. Thus the thoracic duct may be more or less obstructed, or even completely obliterated, by the pressure of enlarged glands in the thorax, or of an aneurysm. The lymphatic trunks in the limbs may also be compressed by glands, aneurysms, and other morbid conditions; and also the capillaries are subject to pressure in consequence of inflammation of the surrounding cellular tissue. Obstruction of the thoracic duct is said to arise from disease of its valves. It may be remarked, further, that a certain degree of obstruction to the flow of the lymph and chyle may arise from marked interference with the venous circulation, as the result of cardiac disease or direct obstruction of the principal veins. If the thoracic duct is obstructed, and if the chyle cannot reach the venous system by the establishment of a collateral circulation, grave general symptoms arise—viz., marked wasting and anæmia, tending towards a fatal issue. Various degrees of obstruction of this channel have, however, been found in several cases at *post-mortem* examination, in which no symptom had been observed during life. The most obvious direct effects of obstruction in the absorbents are dilatation of the vessels behind the impediment, in the course of the circulation, and the development of lymphatic œdema. These conditions necessarily vary much in their extent and degree, according to the situation and character of the obstruction. The dilatation may ultimately lead to rupture of the vessels.

When lymph or chyle is discharged from the vessels or glands, either on the surface of the body or into some internal part, the amount varying much in different cases, the terms lymphorrhagia or lymphorrhœa are applied in signification of the condition. Lymphorrhagia has been observed as a consequence of a wound, but more commonly of engorgement from closure of the lumen of the duct by inflammation or a tumour. In rare cases it may occur from slight wounds, especially in the neighbourhood of joints, which is probably due to a constitutional defect, a lymphorragic diathesis corresponding to the hæmorrhagic diathesis (Bradley). Usually traumatic lymphorrhagia results from wounds of the thoracic duct of the larger lymphatic trunks, or of the glands. Idiopathic lymphorrhagia is generally due to previous dilatation of the vessels, which ultimately give way. A most interesting case has been reported by Cayley, in which the receptaculum chyli gave way spontaneously as the result of previous extreme dilatation and fatal peritonitis ensued.[11] Lymphorrhagia may be associated with chyluria, and is then believed to be due to the filaria sanguinis hominis. When lymphorrhagia occurs on the surface of the body, the discharge of the lymph is the clinical sign of the condition. The amount of fluid which escapes varies considerably—from one ounce to five or even ten pounds during the twenty-four hours. It also differs at different times, and the flow has been known to assume a periodic character, increasing during digestion. The fluid which escapes after injury may be clear and limpid lymph, or mixed with inflammatory products or blood. That which comes away in cases of rupture from dilatation of the vessels is more or less white and milky, like chyle, and it contains a variable quantity of fat. The quantity of fibrin present varies much, and therefore the power of spontaneous coagulation of the fluid. When lymphorrhagia takes place internally it can only be recognised by the presence of the fluid in the urine or fæces respectively, in the former case giving rise to chyluria, in the latter to fatty stools. Bradley directed attention to the probable origin of certain cases of hydrocele, hydrocephalus, pleuritic effusion, and ascites from a lymphorrhagia into the respective serous cavities. As proved by Cayley's case, the escape of chyle into the peritonæum may set up fatal inflammation. The general condition is more or less affected in cases of lymphorrhagia in proportion to the amount of fluid lost.[12]

The consideration of inflammation of the lymphatic system would now appear to be appropriate. Acute inflammation presents three varieties, namely, when the vessels are alone affected, lymphangitis or angeioleucitis; when the condition is limited to the glands, adenitis, or when both vessels and glands are involved. It will be convenient to consider these varieties together. As a rule the disease is localised, but under

[10] Hoggan, *Journal of Anatomy and Physiology*, April, 1884, p. 304.

[11] "Pathological Transactions," vol. xvii., p. 163.

[12] Roberts' "Medicine," p. 165.

certain circumstances, the absorbent system is more or less widely implicated, especially if the inflammation is of a septic character. It may be set up and extend with great rapidity.

This class of affections may be of traumatic origin, being due to various forms of injury, such as a wound, contusion or strain, or they result from various kinds of irritation, such as that induced by neighbouring inflammation, suppuration, ulceration, or diseases of joints or bones. The implication of the glands under the jaw, in cases of diphtheria and scarlatina, is a familiar illustration of irritation from within. External irritation, as, for instance, the strong heat of the sun, may induce superficial lymphangitis. Special forms of inflammation of the absorbent system are set up by specific kinds of irritation, such as that of the syphilitic virus, and septic forms of the disease are induced by various septic poisons. The lymphatics connected with the internal organs are often inflamed when these are the seat of any irritation. Pus has been found in the neighbouring lymphatics in cases of purulent pleurisy. Some forms of pelvic cellulitis have also been regarded as being due to lymphangitis. Inflammation may be immediately excited in the vessels and then travel along to the glands ; or the irritation may be conveyed by the current of lymph to a more or less distant part, the intervening portion being unaffected, or the glands may be implicated by extension from the surrounding tissue. When a gland is involved, while the vessels between it and the source of the irritation are unaffected, the inflammation is said to be sympathetic, Inflammation is much more readily excited in the lymphatic structures in some persons than in others, and especially in those who are of a strumous habit. The glands are more liable to be affected in the early periods of life. A low state of the health may predispose to inflammation of these structures from slight causes.

Lymphangitis is distinguished as reticular or tubular according as the fine capillary network or the trunks of the vessels are involved. In the former case the skin and its capillaries are usually implicated. In the latter variety the vessels become dilated, and their walls are thickened, the endothelium often disappears, and the internal coat becomes opaque and uneven. The lymph coagulates in their interior, blocking up their channels, and the clot may become organised, obliterating the vessels permanently, or occasionally it softens and suppurates in the centre, and the pus may find its way into the circulation, leading to septicæmia or pyæmia. Exudation also takes place, while the surrounding cellular tissue undergoes hyperplasia and becomes thickened. Lymphangitis may lead to inflammation in joints, which may be of a purulent character. In adenitis the affected glands become congested and swollen, as well as the seat of exudation, while the passage of the lymph through them is impeded. Resolution may take place after a time, but not uncommonly the inflammation terminates in suppuration, this beginning in the centre, the cavities of the glands becoming filled with pus, and the surrounding cellular tissue being also involved. In other cases the glands remain more or less indurated, and they may form adhesions to the surrounding structures, especially if the irritation is repeated several times. Glands which are chronically enlarged, as the result of inflammation, are very liable to become the seat of acute inflammation from slight causes. They may subsequently suppurate, or undergo a caseous degenerative change, but often remain unaltered for a considerable time. This condition of the glands interferes with the passage of the lymph through them.

When the superficial lymphatic vessels or glands are inflamed, this condition is evinced by objective signs. Lymphangitis is indicated by wavy or straight lines, running towards the glands, or sometimes there are isolated red patches, the skin and the capillaries being involved along with the lymphatics. The large vessels may be felt as firm and knotted cords. If the glands are affected, these can be felt, and seem to be more or less enlarged and swollen, at first feeling firm.

At the same time pain is experienced, often very acute, with sensations of heat, stiffness, and tenderness. When the affected structures are deeply situated, there are no red lines, and redness is not always present. There is induration of the part, more like that of œdema than inflammation. The inflammation may, however, pass through the intervening tissues from the deep to the superficial lymphatics, and *vice versâ*. Owing to the interference with the passage of the lymph, more or less swelling from lymphatic œdema is often present of a firm character, and a limb may be much enlarged from this cause. If suppuration should take place in glands, this will be evidenced by the ordinary signs characteristic of an abscess. There is more or less pyrexia, in proportion to the extent and intensity of the inflammation. In septic forms of lymphangitis, signs of general septicæmia are likely to arise.[13]

Regarding the morbid conditions of the lymphatic glands, manifested by enlargement, if we have regard to the anatomical characters, there are at least three, which it is extremely difficult, and often impossible, to distinguish from one another. These are simple inflammatory hyperplasia—lymphoma, the so-called scrofulous form of enlargement, and that morbid condition now generally known as lymphadenoma.

Lymphoma is a comprehensive term, and includes formations which are not strictly tumours, but rather hyperplasias of the tissue proper to lymphatic glands, lymphadenoid, or briefly, adenoid tissue, as it is called. Lymphoma, as a neoplasm, would imply the development and deposit of new adenoid tissue in the form of a tumour within a lymphatic gland, a follicle, or some other structure of the connective tissue group. In what is usually called lymphoma, this does not happen. What does happen is, that the tissue of the lymphatic gland, or follicle, increases in size because the lymphoid cells it contains are multiplied, while the reticular tissue undergoes hyperplasia. The process is often inflammatory in character, in other cases the lymphoid hyperplasia seems to begin idiopathically, that is, without any cause hitherto discovered. It may often be doubtful whether the increased growth of a lymphatic gland should be regarded as neoplastic or as hyperplastic. Many cases of lymphoma, especially the leukæmic kinds, seem referable to hyperplasia. The lymphatic glands, adenoid structures of the intestine, and lymphoid follicles of the spleen, all maintain their structure as they grow in size, or alter but slightly. Moreover, the functions of the glands seem to be more actively performed. This does not seem to indicate that they are invaded by anything of the nature of a neoplasm.

In addition to the hyperplastic lymphomata, there is a true or heteroplastic tumour, whose structure agrees with that of lymphadenoid tissue. As the term lymphoma has been invented to describe the hyperplastic formations, we may do well to distinguish the genuine tumour as lymphadenoma or lymphosarcoma. It is a sarcoma whose structure somewhat resembles that of a lymphatic gland. It most commonly originates in lymphatic glands, and in the adenoid tissue of the mucous membranes. It may, however, arise elsewhere. When it attacks a lymphatic gland, it may be distinguished from mere hyperplastic lymphoma by its rapid growth, and by its tendency to overpass the limits of the gland, and to form metastases.[14]

The term scrofulous is commonly applied to the slow

[13] Quain's "Dictionary of Medicine," vol. i., p. 907.
[14] Ziegler, Macalister's Translation, vol. i., p. 216.

and painless enlargement of groups of lymphatic glands, which occurs for the most part in children, and almost invariably ends in the destruction of the glands, by an imperfect kind of suppuration. Scrofulous glands are generally met with in either the neck, thorax, or abdomen, and are commonly limited to one of these regions. Indeed, in the neck, where their progress can best be followed, we often see that the enlargement commences in one gland only, that the glands in the vicinity are successively affected, and often at long intervals, and that, after a while, the morbid process ceases with the destruction of all the implicated glands, those on the opposite side of the neck possibly remaining all the time perfectly healthy. In the earlier stages of the affection the glands differ little, either to the naked eye or under the microscope, from such as are simply hyperplastic from inflammation, but they tend soon to become opaque, yellow, and friable, to undergo caseous degeneration. This change commences in the central parts, and gradually involves the whole mass, which presently breaks down into a semi-fluid *detritus*. Occasionally, the caseous lump dries up, earthy salts are deposited in it, and it becomes an inert earthy concretion. There is a good deal of vagueness in the sense in which the term "scrofulous" is generally employed. It is taken for the most part to imply that the morbid process to which we attach it is dependent upon some peculiar condition of the constitution, and further, that there is some close affinity, if not actual identity between it and tubercle. But the so-called "scrofulous glands" are certainly not tubercular; and, although their appearance is sometimes followed by that of tubercle, in a very large number of cases no such sequence is observed. And as regards cachexia, it is certain that "scrofulous glands" often develop in persons who appear in all other respects in the best of health; and further, if we may judge by the limitation of the morbid process, that we admit their dependence on a pre-existing state of cachexia, that cachexia must in many cases be limited to a definite part or district of the organism. It is well known, moreover, that when a single gland has undergone scrofulous proliferation, there is a remarkable tendency for the morbid process to spread thence to other glands in its immediate neighbourhood, and thence again to others; it seems, in fact, to spread from gland to gland, through the agency of some infective materials which the diseased organs evolve. It is well known, also, that scrofulous enlargement of the glands of the neck not unfrequently follow upon certain diseases affecting the throat, such as parotitis, diphtheria, and scarlatina. Now, basing his arguments upon such facts as these, Virchow maintains, and we think with reason, that scrofulous proliferation of the lymphatic glands, like ordinary inflammatory hyperplasia of the same organs, is always secondary to the same peculiar process, going on at the mucous surface or other part, which is in direct relation with them by means of the lymphatic vessels; that scrofulous disease of the glands of the neck is traceable to some inflammatory condition of the throat, fauces, or contiguous parts; of the bronchial and mediastinal glands to pulmonary or bronchial inflammations, and of the mesenteric and retro-peritonæal glands, to similar conditions of the alimentary canal. He considers that there may be some specific quality or element in the primary inflammation, and a tendency in its products to undergo rapid decay similar to that which characterises the morbid products of the diseased lymphatic glands, but that generally they are not recognisable, from the fact that in this case the cells are mostly developed at a free mucous surface, and are speedily shed from it. But he considers, further, that there may be some special aptitude, or weakness, congenital or acquired, in the lymphatic glands of certain persons, or of certain parts of them, which makes their inflammations, induced by indifferent causes, assume the scrofulous character.[15]

In contradistinction to the scrofulous enlargement, tuberculous lymphadenitis may be mentioned. It attacks certain parts of the lymphatic system rather than others, especially those through which the lymph is, as it were, filtered, namely, the lymphatic glands. It is in the glands that the tuberculous eruption is most intense. Generally, the process makes a kind of halt at these gland stations, but it sooner or later finds opportunity to spread onwards, and at length reaches the main trunks and the thoracic duct itself. Wherever the tuberculous process has become established, it is distinguished by the development of tubercles, and this in the lymphatic vessels as well as the glands. A more or less tense inflammation of the surrounding tissue is always associated with the tubercular eruption, it is manifested by hyperæmia with infiltration and swelling. If the process lasts for a certain time it not unfrequently happens that young connective tissue is developed at the seat of the eruption. The usual fate of the tuberculous growth is caseous necrosis and disintegration. It rarely issues in the formation of fibrous tissue, and still more rarely in complete resorption of the tubercle. The virus which engenders tubercle may be carried out of the lymphatic system into the blood, either from a tuberculous focus in a gland, or a tuberculous ulcer in the thoracic duct. It may thus be conveyed to distant organs.

In the morbid condition known as lymphadenoma, the enlargement of the lymphatic glands consists at first of mere hyperplasia, and subsequently of fibroid induration. It varies much in its extent. A few glands only may suffer, or every gland in the body may be enlarged. The former cases have the character of a local growth, the latter is distinctly a general disease, for which the term lymphadenosis seems the most exact. The glands vary in consistence, when soft there may be a considerable excess of leucocytes in the blood, when hard there may be simple anæmia. Microscopic examination reveals that the enlargement is due to hypertrophy of the glandular tissue, the whole structure being converted gradually into lymph cells, with a fine network of cellular tissue. In addition to the hypertrophy of the glands, other organs, in course of time, present growths of a similar nature, especially the spleen, and less commonly the liver, lungs, kidneys, and alimentary canal. Even the canals of the bones may be filled with lymphoid cells. Very little is positively known as to the ætiology and pathology of the condition, but it is assumed that it is a primary affection of the lymphatic system, depending upon some special constitutional condition or diathesis, named lymphadenosis. By some pathologists it is regarded as malignant, and is placed by Wilks between cancer and tubercle. In many cases the disease seems to begin without any obvious cause, but in others it evidently starts from some local irritation, and such irritation has probably been present in other instances where it has been too slight to attract attention. As regards predisposing causes, the disease is most common in early and late adult life, in males, and amongst the poor; its development being aided by bad food, insufficient clothing, cold and damp, and unfavourable hygienic conditions. When the affected glands are superficial, their enlargement is evident on objective examination, and their extension and growth can be observed. In the large majority of cases there is neither pain nor tenderness, but if the enlargement is very acute and rapid, sharp shooting pains may be complained of. When situated in internal cavities, the existence of lymphadenomatous growths can generally be made out by physical examination.

[15] Bristowe's "Medicine," p. 62.

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Some of the most important symptoms result from pressure and irritation by the enlarged glands, these necessarily varying according to their position and their relation to adjoining structures. Obstructive dyspnœa is often a marked symptom when the growth is situated within the chest. Along with the local signs of the disease, the constitution is obviously affected, as a rule. This may occur before any local symptoms appear, but usually the general symptoms are gradually developed as the glands progressively enlarge, including emaciation, anæmia, and its attendant phenomena, often combined with an appearance of serious illness, marked muscular weakness, the patient often tottering and trembling, and feeble circulation. More or less pyrexia is present in most cases especially in young patients. Free perspirations are common, and the skin is pale and usually moist. Œdema of the legs is a frequent symptom. The blood does not present any excess of white corpuscles, but is often very watery and wanting in its normal colour, the red corpuscles being markedly deficient. The patient is much depressed and low spirited, and attacks of syncope are not uncommon. Bronzing of the skin arises from enlarged retro-peritonæal glands surrounding and compressing the solar plexus. Unless death should occur from the local effects of the enlarged glands, the course of the disease is generally chronic and progressive. In most cases death occurs within two years, either from gradual asthenia and exhaustion, from the effects of pressure, rarely from hæmorrhage, owing to perforation of a blood-vessel, or from some intercurrent complication, such as pneumonia, pleurisy, erysipelas, or kidney degeneration.

Hard lymphadenoma or lymphosarcoma occurs as a primary growth, most frequently in the superficial lymphatic glands. Other groups may be attacked in the further course of the affection. For example, if the affection starts in some of the cervical glands, the rest of the cervical glands and the thoracic and abdominal glands lying near the large vessels are attacked in succession. The glands are transformed into firm, tough, elastic, or hardened knots, forming dense clusters in combination. Simple glands may reach the size of a walnut. On microscopic examination, the lymphadenoid structure is seen to be preserved, while the cells are increased in number, and the reticulum is thickened. Fatty degeneration, calcification, or softening rarely supervene. In later stages the follicles of the spleen may be affected, and be changed like the glands into hard nodules. The spleen is never primarily affected in this form of lymphadenoma.

Sarcoma of the lymphatic glands is a somewhat uncommon affection. It occurs in single glands, or several of the same group are simultaneously affected, and cohere into a nodular tumour. It often overpasses the limits of the gland, and invades the adjoining tissues. Secondary growths are usually developed. Small round-celled sarcoma, spindle celled sarcoma, fibro-sarcoma, and alveolar sarcoma or alveolar angio-sarcoma are all forms which occur.

All the forms of tumour, which give rise to metastases may affect the lymphatic glands. Cancers especially are apt to do so, and the glands become enlarged and altered as the disease advances. Sarcomatous metastases, like the carcinomatous, may originate in sarcoma cells which have entered the gland through the lymphatic vessels.

Indian Medical Service.—The following were successful at the Competitive Examination held on the 11th instant, and following days. Fifteen candidates competed for five appointments. All were reported qualified:—D. Prain, 2,625 marks; A. T. Bown, 2,610; J. T. W. Leslie, 2,560; U. N. Mukerji, 2,411; W. L. Price, 2,378.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

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President of the Epidemiological Society of London.

(Continued from page 863.)

Erysipelas.

In 1854 Mackinnon remarked:[1]—"The idiopathic erysipelas as it appears on the face and lower extremities, unconnected with wounds, is a rare affection in India, and I know of no instance of its epidemic appearance. Erysipelas attacking wounds I have frequently seen prevail as an epidemic, exciting in the merest abrasion of the skin, as in the sores on the legs of prisoners from the chafing of their irons, high and diffuse inflammation, requiring free incisions to prevent sloughing. It has been during humid sultry weather, and especially at the breaking up of the rains, I have seen wounds take on this action in an epidemic form. In the Medical College Hospital and in the Native Hospital in the Durrumtollah, wounds made in operating are apt to take on this action, especially in the rains.

Morehead (p. 200) agrees with Mackinnon in considering that idiopathic erysipelas was, in his time, rare in India. He met with very few cases in Bombay, either in Europeans or in natives. He added that traumatic erysipelas is of more common occurrence, and at times evinces almost an epidemic tendency. It was common in the Jamsetjee Jejeebhoy Hospital in November and December, 1851, after wounds of the scalp and lower extremities, but was easily subdued. It did not in all cases originate in the hospital, but in some was present on the admission of the patient; thus showing that it was not, at least in all cases, due to the air of the hospital. On one or two occasions he also noticed the liability to erysipelas after application of blisters, so marked as to render it expedient to discontinue their use for the time.

In my considerable Indian experience, between 1848 and 1873, so little *idiopathic* erysipelas appeared among my own patients, that I used to speak of a solitary (facial) case which had occurred in my medical wards in the Calcutta Medical College Hospital, which has 300 beds. In the eight years 1865–72, however, sixteen *traumatic* cases proved fatal in the surgical wards. In 1873 a wave of erysipelas arose in Calcutta, and from February, 1874, this disease appeared to have taken up its abode in the surgical wards of the hospital, spreading from case to case, and attacking traumatic cases so frequently that the surgeons became apprehensive that it would occur whenever they were obliged to operate. I then foresaw the appearance in our obstetric wards of puerperal fever. In the first week of June that disease became so prevalent there that Dr. Charles was obliged to remove his lying-in women to a separate building.

There was no accession of idiopathic cases to my medical wards.[2]

In his annual report of the General Hospital, Madras, for 1882, Surgeon-Major R. W. Cockerill observes that "regarding erysipelas, the experience of the past year agrees with that of all former ones. This disease is a rare one in Madras, and never attacks the patients in hospital. All the cases (four in number, all Europeans) came from outside; and, although the patients are generally treated in the ordinary wards, such a thing as the disease being conveyed from one patient to another, by infection or contagion, is unknown."

The returns for 1881 show that 8 *European Soldiers*

[1] "Indian Annals of Medical Science," No. 3, p. 177.

[2] For a detailed report on the outbreak, which I made to the Head of the Medical Department, see *Indian Medical Gazette*, for 1875, p. 314.

died of erysipelas, the distribution of cases being :— Bengal, 2 ; S. Afghanistan, 1 ; Madras, 3 ; Bombay, 2. Of *European Women*, 8 were admitted in Bengal, of whom 1 died, and 2 were admitted in the Bombay Presidency. Total, 10 cases, and 1 death. Of *Soldiers' Children*, 5 were admitted and 1 died ; 3 admissions with 1 fatal case in Bengal ; 2 admissions in Madras. Of *Native Troops*, there were 51 admissions in Bengal and 4 deaths. In the Punjab Frontier Force, 38 admissions, and 3 deaths. Hyderabad Contingent, 1 admission ; Bombay, 7 admissions ; Madras, 9 admissions, 3 deaths. In the *Gaol Population*, there were 150 admissions in Bengal, 29 deaths ; 12 admissions, and 2 deaths in Bombay ; in Madras 6 admissions, 1 death ; in British Burmah, 2 admissions ; in the Andamans and Nicobars, 7 admissions and 1 death.

For *Puerperal Fever* and *Ephemeral Puerperal Fever* see Malarious Cachexia, Diseases of Pregnancy, and Erysipelas.

Rheumatismus Aeutus see Diseases of the Heart.

Writing in 1835[3] Mr. Malcolmson, of Madras, said that the common acute rheumatism of Europe is very little known in India. In reviewing this work Dr. Corbyn, whose Bengal experience was large, by no means opposed this view. Morehead, writing from experience in Bombay, says,—"It may be that *aeute* articular rheumatism is not so common in India as in colder climates, yet it is by no means rare" (p. 561). I saw it very distinctly, with its cardiac complications only too well marked, in Calcutta, but only in three or four cases. In a European, there was the characteristic sweating, which I think I could not mistake, but the attack passed off in two or three days.

Reporting in 1839, Dr. John Murray stated that the "Service in Madras were losing more in efficient strength by rheumatism than by any other class of disease.[4] He attributed this mainly to the unfitting state of the barracks and guard-rooms in that command. Although great improvement has been effected in military buildings, the prevalence of rheumatic disease is still great. In the year 1881 the admissions for rheumatism among the European Troops in India numbered 2,757, or 47·0 per 1,000 of strength. No distinction of acute and chronic is made in the tables ; but the fact that *there were no deaths* appears to show that true rheumatic fever was neither prevalent nor grave in type. The invalids under this heading amounted to 1·48 per 1,000 of strength. The admissions of European Women were 40 in 3,741, with no deaths ; of children 10 in 6,548, no deaths. Among 100,844 prisoners, there were 447 admissions for acute rheumatism and only one death. The admissions for chronic and muscular rheumatism were 832 and 564 respectively. The incidence of rheumatism upon the prisoners in the Andaman and Nicobar Islands, averaging 11,225 strong, was remarkably heavy. The admissions were, acute, 31 ; chronic, 424 ; muscular, 207 ; total, 662, or 65·5 per 1,000 ; but no deaths.

Synovial Rheumatism of the smaller joints, as those of the phalanges of the fingers and toes, as well as of the larger synovial sacs, as the shoulders and knees, is frequent among Europeans who have long resided in the damp, malarious, and inconstant climate of Bengal. Although these painful affections are often very chronic, laming people, and resisting all treatment for years, they, like muscular rheumatism, seldom, if ever, cause material lesions in affected joints, and at length disappear, generally suddenly, of their own accord. I know persons, long retired from India, who, having suffered in almost every joint, are now free from pain or stiffness in any articulation, but who are liable to be attacked at any time, especially in damp and cold weather, with pain and disability almost anywhere, but most particularly in those joints which have hitherto suffered least.

Muscular Rheumatism is of very frequent occurrence during the rainy season in Lower Bengal. Under the head of Tetanus, I have spoken of a singularly marked coincidence, indicative, as I believe, of ætiological affinity, which is observable in the appearance of these two diseases. I think that there are now few large muscles in my own body which have not been subject to this malady, which I have endured without any attempt at medication, in the certainty that nature would relieve me. In my last voyage from India, the heat was so great that I could not occupy my berth, and lay in an exposed position on the deck under an open hatchway. The result was a pain in my left popliteus muscle which troubled and considerably lamed me for many months after my return. As I was beginning to think that I was crippled for life, still refraining from treatment, the affection suddenly disappeared and has never returned in that locality.

I have noted a remark made by Mr. Morgan in a report on the state of health of troops at Cannanore,[5] which, although true and useful, must be accepted with some reserve.

"A hundred and forty cases of this class of disease have been treated, and two of them were invalided ; no deaths. That most convenient complaint, 'Pains all over me,' in the mouths of soldiers who think they have completed service long enough to entitle them to discharge, has and will cram the wards of an hospital in a station where the facilities of 'catching cold' are certainly great during the rainy season. Such cases are really quite puzzling. There is no violence of inflammatory action to control ; the secretions are all healthy in quantity and quality ; yet the 'pains' go flying about from head to foot in all directions. If we blister or leech the loins, the most common site, in ten days we have the shoulders implicated, and *vice versâ*." Mr. Morgan evidently regarded most of those who thus complained as malingerers, and probably a large proportion of them were ; but such is the natural course of the affection in genuine cases.

Writing in 1837, Dr. Corbyn remarked that *Gout* is a disease scarcely known among the inhabitants of warm climates. He added that East Indians are rarely affected with gout. A young Englishman, born of gouty parents, but still free from joint disease, may enter upon a career in Lower Bengal with a strong hope that, with prudence, he may escape the threatened evil. I believe that *Gout* scarcely exists among the natives of India (Dr. Irvine wrote, in his "Medical Topography of Ajmeer," "I have heard of gout occurring among some of the Rajpoots, who drink hard, but I never met with any such cases"), and, although I have seen one or two very moderate cases of this disease among Europeans, and have heard of a very few others, I think that, with all its sanitary faults, Calcutta is an earthly paradise for those cautiously-living people whom gout threatens, but has not crippled. Before I went to India, I saw very little of the diseases of the rich. In the East, I saw much of the ailments of ladies and gentlemen born and living in wealth, but it was not until ten years ago, in helping an old gentleman with unmistakably characteristic hands and feet into a Bayswater omnibus, that I said to myself, "I now see typical gout for the first time !"

I have from time to time watched the sufferings from *gouty synovitis* of an esteemed brother officer. About seventeen years ago, Dr. ——, a remarkably well built and agile man, was caught when walking on the

[3] "Observations on some Forms of Rheumatism prevailing in India."

[4] Reporting from Bellary (Madras Presidency), Dr. Allman said that Rheumatism was the most troublesome and tedious disease which the Army Medical Officer has to deal with in India. Although in very few instances fatal, it deprived the Army annually of many soldiers.

[5] *Indian Journal of Medical Science*, vol. v., p. 335, N.S.

Midaun (plain) in one of the most terrible cyclones that has visited Calcutta in modern times. He stood long, clinging to a lamp-post, exposed to the fury of wind and rain. The consequence was an attack of acute synovitis of a knee-joint. In subsequent years other joints have become affected; but he recovers well from attacks, and it is clear that no large amount of deposit has occurred. These attacks are undoubtedly gouty.

Syphilis.

Those whose experience has been principally obtained in large Indian stations, or who, like myself, have practised chiefly in much frequented Oriental ports, have not, I believe, observed any remarkable differences in the type of the primary and secondary forms of that disease as they occur in Europe and in the East. Still, as our acquaintance with the remote hill tribes of India is daily upon the increase, it would be well if, while a community is still in its primitive condition, enquiry could be made into the prevalence of syphilis among them and into the characters of the disease as it now exists.[6]

Formerly it became a matter of observation by surgeons, especially in the Madras Presidency, that syphilis has greatly increased in prevalence and become aggravated in type during famine seasons. Dr. John Clark, of H.M.'s 13th Light Dragoons,[7] showed that, while his regiment was stationed at Bangalore, during the dreadful famine of 1833, the poor and half-starved village women were known to cohabit with the soldiers for a handful of grain. He adds that prostitution prevails to a great extent at such periods, and the state of debility induced appears to be favourable to discharges from the sexual organs of the female. He gives a return of admissions for syphilis and gonorrhœa in the regiment, showing that, whilst during ten of the years between 1820 and 1834 the number of cases ranged from 63 to 110 annually, only in one year reaching 140, the admissions during the four exceptional years, *which were years of famine*, ranged from 226 up to 350.

In this report Dr. Clark mentions a fact which is still noteworthy. From observations made in the 7th and 81st Regiments, he found that "more cases (of syphilis) often occur in one regiment in the East Indies than in the whole of the West India command." Dr. Clark assigned this difference to the infrequency of prostitution among the negro slave population of the West, "there being little or no encouragement for prostitution amongst a people who are clothed, fed, and encouraged to marry." The number of cases for all regiments in the West Indies in 1823 was 36; the returns of the 13th Light Dragoons in India for the same year showed that there were 44 cases of primary syphilis *treated*. The average of syphilitic cases in that regiment during eighteen years, 1820 to 1837, was 61, the average strength of the regiment probably not being above 800.

A report by Mr. McGregor on syphilis in H.M.'s 39th Regiment from 1833 to 1838, during the greater portion of which term they were in cantonments at Bangalore,[8] gives the very high average of 191 per mille for the six years. These averages may be usefully compared with those of the army of India of the present day, viz., primary, 87·6, secondary, 23 per mille.

All observation combines to show that syphilis rises to its greatest prevalence and malignity in armies worn out in long campaigns, and whenever the men's constitutions are tainted with scurvy. I have cited elsewhere facts leading to this conclusion.[9]

In the year 1860, when the measure of re-establishing Military Lock Hospitals in India was under discussion, I collected with much care and published[10] materials for a history of these establishments. Now that the Lock Hospitals in the United Kingdom stand nearly useless, and those in India appear to be immediately threatened with abolition, I would earnestly solicit the attention of the authorities and of army surgeons to that very striking array of facts. In 1797 the Governor-General established *hospitals for diseased women* at the stations of Dinapore, Berhampore, Cawnpore, and Futtyghur. Some thirty years subsequent to their establishment, these institutions had fallen into disrepute, assuredly under mal-administration. Accordingly they were abolished in the Bengal Presidency in 1830, but were permitted to survive in the presidencies of Madras and Bombay until 1835. Many medical officers of great ability and experience—Dr. Murray, senior, Surgeon Sievwright, Dr. Clark, Dr. Mouat, senior, and Dr. Arnott—deeply regretted the abandonment of this system and showed that an increase of syphilis was the result. I have fully cited their statistics and arguments. I have also shown that, being virtually left under the control of a native doctor and a female assistant, both people of the lowest class and upon the very smallest allowances, these places became dens of iniquity, and their keepers agents of extortion and oppression. The only surprise appeared to be that they could possibly have been maintained for nearly forty years in every large military station throughout India. My late honoured chief, Sir John Forsyth, Director-General of the Medical Department, held that the whole history of Lock Hospitals in India distinctly proves that such establishments, if conducted upon the old system, must almost inevitably be failures, as, with the exception of the European medical officer in charge, the whole system was carried on by native agency. The system of placing the women of the Regimental Bazar under the supervision of the quartermaster, and under the inspection of one of the medical officers, and those of the Sudder Bazar under the surveillance of the cantonment magistrate, was found to keep the Bazars tolerably free from disease. This eminent authority held that the only prospect of making a Lock Hospital really useful is by conducting it with the vigilant and zealous co-operation of these two authorities; and even then little good can be expected unless a medical officer of standing and activity is placed at the head of the establishment, assisted by an European matron; and, to be perfectly successful, even this scheme must have the hearty support of the whole of the regimental and medical authorities on the spot. The Director-General was "fully impressed with the necessity of adopting some such decisive and comprehensive measure as that sketched above for the prevention of a disease which is known to undermine the health of so large a proportion of our European force"

In the middle of 1859 a Lock Hospital at Meean Meer was sanctioned as an experimental measure. The system has been general until now.

Judged by the evidence of statistics, this much debated experiment, pursued for nearly a quarter of a century, has not been successful. It is shown in the Eighteenth and Nineteenth Reports of the Sanitary Commissioner with the Government of India, 1881 and 1882, that in the whole army of India during the six years 1876–81 the annual admissions per mille for *primary syphilis* have been at the rates of 60, 65, 95, 79, 88, 92, and 87·6. It has long been argued that, even if this system failed to diminish the number of cases, it would

[6] For a series of valuable observations on the characters of syphilitic sores, as they appeared during a series of years in regiments on Home and Indian Service, *vide* "Indian Annals of Medical Science," No. 5, p. 20. General statistics of "Local Venereal Ulcers," "Syphilitic Bubo," and "Consecutive or Secondary Syphilis," as met with among soldiers in the United Kingdom and in India, by C. A. Gordon, M.D.

[7] *Madras Quarterly Medical Journal*, for October, 1839.

[8] *Indian Journal of Medical Science*, vol. vii., p. 257.

[9] On the Means of Preserving the Health of European Soldiers in India. "Indian Annals of Medical Science," No. 13, p. 230.

[10] *Ibid* p. 248.

have the effect of rendering the type of the disease less virulent. As evidence that this improvement has not been effected, Dr. Cuningham shows that during the above years the ratios per mille of *secondary syphilis* have been 24, 22, 22, 24, 23, 23, 23. The admissions for gonorrhœa in 1880 were at the rate of 106·5, in 1881 of 107·3, and in 1882 of 119·8, per 1,000. The Sanitary Commissioner observes: "In noting these results, the facts only are dealt with, and they are most unfavourable. As pointed out in this office annual report for 1878, they may in some measure be accounted for by the increased youth of the army and by the smaller proportion of married men, but making every allowance for these factors, *the failure of the Lock Hospital system is still most decided.*" [The italics are mine. N. C.].

In the latest report which I have seen (for 1882), the Commissioner writes: "In the report for 1881, it was shown, from the statistics of venereal diseases in the European Army of India, during a series of years that the Lock Hospital system in the cantonments of this country has proved a failure. It was there noted that the admission-rate for these diseases in the Army of India had been 260 per mille during the year 1881, and that, with the single exception of 1878, this ratio exceeded that of any year since 1871. Another year's experience confirms the conclusion then arrived at. During 1882, cases of venereal disease were more common than they had been even in 1881, and equalled 265 per 1,000. This admission rate . . . exceeds the average ratio of the ten-year period, 1870–1879, by 62 per mille.

It can hardly be doubted that, armed with these texts, the sentimentalists of the present day will take active measures for denouncing and crushing the Lock Hospital system in India, as their predecessors wrote and clamoured the system down in the third decade of this century. As I am writing this, I find it announced[11] that "venereal of the most virulent type is still the prevailing disease among the troops at all the military stations." "The Lock Hospitals are almost empty. Attendance at these institutions being now optional, but few unfortunates present themselves for treatment, and these, as a rule, are only bad cases." The writer adds, "Fostered and encouraged as it is, this loathsome disease is spreading to such an extent as to cause grave anxiety." As I have been long out of India, and as I have no personal experience of the working of the system during the past 24 years, I am not qualified to offer an opinion upon the Indian data cited above, but I most earnestly trust that, in the highest interests of suffering humanity, the whole facts of the case, as it affects the character and working of Lock Hospitals in the East, may be dispassionately investigated and reported upon by military surgeons of great Indian experience. However the question may be finally decided, I shall never cease to believe that, whatever the unavoidable short-comings of this system may be, *the direct tendency of Lock Hospitals, whether at home or abroad, is to reduce the prevalence and virulence of venereal disease*, PROVIDED THAT THE INSTITUTIONS ARE JUDICIOUSLY AND LIBERALLY CONDUCTED.

What the Indian Lock Hospitals needed in 1830–34, was reform, not abolition. The action of those who put them down was somewhat less rational than that of him who should deliberately prescribe a poisonous dose of Prussic acid in a case of inveterate scabies. Can we hope that, despite the action which is being adopted in the United Kingdom, a wiser course will now be taken in India?

Miserable cases of destruction of the tissues of the mouth and jaws, resulting from the native practice of salivating by mercurial fumigation in syphilis, are frequently seen at our hospitals. Doubtless many victims, previously the subjects of malarial and scorbutic cachexia, perish in this manner outside. Either the patient inhales mercurial fumes from a *bhuttee*, made in the form of the cord of raw cotton enclosed in cloth used as a pipe-light, or he sits enveloped in a blanket, on a cane-bottomed chair, under which is placed a pan of ignited charcoal, upon which a native preparation of mercury, usually Rascapur, a mixture of calomel and corrosive sublimate, is sprinkled. See the chapter on Diseases of the Jaw in Fayrer's "Observations," p. 264, and my chapter on *Diseases of the Mouth*. Dr. R. H. Stevens[12] narrates the case of a Bengali lad of 13, with spleen, in whom salivation by a Hakeem caused sloughing of the lower eyelid and destruction of the eyeball which came away almost without the use of the knife. He died exhausted.

Of *Tumours* generally, as they occur in India, it is observable that where, as happened more frequently in old times when the skill of European surgeons was less believed in than it now is, growths, especially the non-malignant, often attained enormous bulk. This was very graphically shown in a series of pictures of Chinese tumours which used to hang from the gallery in Guy's museum. Apart from scrotal tumours, many of these vast growths are pictorially represented in the Indian medical publications of fifty years ago. A case described and pictured by Dr. A. Campbell[13] is especially remarkable. A Nepaulese lady of high rank had a massive growth originating above the right breast. Its size and weight were such that she could only move by the assistance of her slaves. It had descended so low as to rest on her couch when she sat upright. The continued pressure of its base on the ground or bed brought on fatal ulceration with fever. I removed larger fatty tumours in Bengal than I ever met with in England. I saw my friend, the late Dr. Allan Webb, remove an enormous tumour from the outer triangle of the neck of a native, the position and loose attachments of which suggested his remark that, when bulky tumours, originally deep-seated, are dependent and not malignant, long neglect of surgical aid often has the advantage that their weight causes them to enucleate themselves; and thus their excision becomes easy and safe.

(*To be continued.*)

[11] *Medical Times and Gazette*, for January 26, 1884, p. 135, citing the *Army and Navy Gazette*.

[12] *Indian Medical Gazette*, vol. vii., p. 275.

[13] *Indian Journal of Medical and Physical Sciences*, vol. i, p. 49 N.S.

A NEW METHOD OF REMOVING SEWAGE FROM HOSPITALS, BEING A MODIFICATION OF CAPTAIN LEIRNUR'S SYSTEM.

By JAMES W. BARRETT, M.B., M.R.C.S.
Demonstrator of Physiology in King's College, formerly Resident Medical Officer to the Melbourne Hospital.

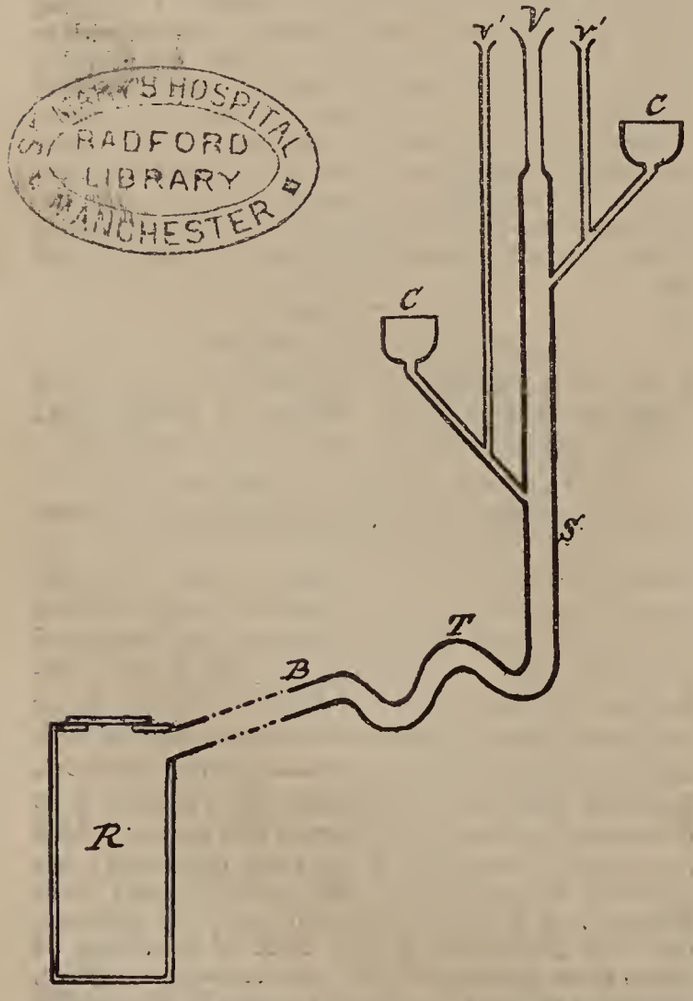
THE system of removing sewage (using the term strictly to mean excreta) from the Melbourne Hospital is a modification of Captain Leirnur's, and has proved so simple, cheap, and efficacious, that I have endeavoured in this article to briefly describe it. Being used in a hospital which was formerly ridden with septic and wound diseases (traumatic fever, erysipelas, spreading gangrene, septicæmia, and pyæmia), it is interesting to notice that whereas this system (which being unique was blamed for their production) has remained unchanged, yet the septic diseases have become very much less frequent since the introduction into Melbourne of that form of treatment to which in its widest sense the term antiseptic is given, and which all over Australia is known by the generic name of Listerism.

In the city of Melbourne the water carriage system

of removal was simply out of the question. Apart from the prevalent opinion that it was not equal to the dry earth system, the fall from the city to the sea is not sufficient to allow of its safe introduction, and when a system of removal of sewage had to be adopted the choice lay between the dry earth and the Leirnur system ; and as thirty years ago very little was known of Leirnur's method it was not adopted. But to the Melbourne Hospital (300 beds), which is built partly on the old or barrack plan, and partly on the new or pavilion method, the dry earth system was totally inapplicable for many reasons too lengthy to detail, and so Leirnur's method was experimentally tried, and being found to answer perfectly, was generally adopted.

The exact mechanism may be described as follows : —In the grounds of the hospital are placed four iron air-tight tanks, each of a capacity of from 200 to 300 cubic feet ; into these, receive pipes, which may be termed basal soil pipes, which convey the sewage from the base of the various segments of the building to the tanks. The soil pipes from the various commodes in the building, which are 36 or 38 in number, open at an acute angle into large vertical pipes which run to the bottom of the building, and there, after describing a horizontal S-shaped curve, and so forming a double trap, open into the basal soil pipes. The upper extremities of these vertical tubes are freely ventilated by air shafts opening on the highest points of the roof. The soil pipes leading from the commodes to the vertical pipes are also in many cases similarly treated.

The following diagram represents this air-tight scheme.

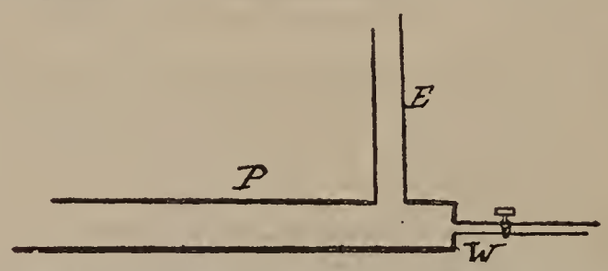


In this diagram, *R* represents one of the underground iron tanks which, as mentioned already, are situated in the hospital grounds ; and *B*, a basal soil pipe leading to it from one of the blocks of the building. This pipe *B* is double trapped at *T*. *S* represents a vertical soil pipe, into which the soil pipes of two commodes, *C*, *C*, open at an acute angle. These pipes and the vertical soil pipe are ventilated by tubes represented by *V'*, *V'*, and *V* respectively.

From this it will be seen that, in the first place, by virtue of the air-tight character of the system no reflux of gas to the commodes can occur ; if from imperfection any reflux did tend to occur it would have to overcome the double trap, and, finally, if any gases get as far as the vertical soil pipe, either the main (v) or the sub ordinate (v^1) ventilators would carry them off.

Any sewage thrown into the commodes falls through the vertical tubes to the traps, and there generally remains for some time. But once a day the tanks (R) are exhausted of air, and then everything in the system is driven with great violence into the tank and the system is thus thoroughly emptied and cleaned ; for the exhaustion of air is continued until it is empty throughout. Once a day also the tanks themselves have their contents transferred by the same pneumatic action to air-tight carts, and the sewage is taken into the country and buried. The mechanism by which the exhaustion is effected is equally simple and effective. In Melbourne the water pressure is very great, and this motive force is here utilized. Into a large metal tube is blown a small but powerful jet of water in the direction of the axis of the tube, whilst opening into the tube at right angles is the metal pipe leading to the chamber which it is required to exhaust, the actual connection being made by coarse india-rubber tubing.

The annexed diagram will serve to explain the arrangement.



In this diagram, *W* represents the waterpipe and tap, *P* the large metal tube, whilst *E* represents the tube which is connected with the chamber it is required to exhaust. With a very moderate expenditure of water, the exhaustive force obtained with this apparatus is enormous.

From these various considerations it will be seen that this system, carefully adapted with good material, is, in a city with a tolerably high pressure water supply, almost perfect, and is wonderfully cheap in application and use. Melbourne is, I believe, the only city in which this modification is used, and the results are there very good indeed. The only weak point in the system is the fact that the tanks must be opened once a day in order to be emptied, and are then apt to give rise to smells, &c. The objection is not insuperable and can be readily overcome by disinfectants. Of course any gases thus arising are at once in the open air and far from the hospital walls. The tanks, tubes, and carts are made of iron, and all doors and openings are closed by iron plates which screw on by a tolerably coarse but well fitting screw thread which proves sufficient to make them air-tight. The most ignorant men are found to be perfectly competent to successfully conduct the working part of the operations.

In-growing Nail.—In a note to the *Union Médicale*, June 22, M. Monod states that during the last twenty years he has treated in-growing nail by a very simple and effectual method, which does not involve the removal of the nail. He makes a free application of nitrate of silver at the commencement of the affection, without isolating the nail. If the cauterisation is carried deeply into the diseased furrow, the patient has usually, even by the next day, derived considerable relief, and is able, even thus early, to walk in moderation with an easy shoe. Extirpation of the nail should be reserved for quite exceptional cases.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

CASE OF MALIGNANT DISEASE OF CÆCUM —PERFORATION AND RAPID DEATH— AUTOPSY — SECONDARY GROWTH IN ABDOMINAL WALL AND BOTH KIDNEYS.

(Under the care of Dr. HARLEY.)

(For the notes of this case we are indebted to Mr. F. W. STONE, House Physician.)

HENRY B., aged 46, was admitted into the hospital on July 17th, 1884.

Family History.—The father died, aged 74, of bronchitis; the mother died, aged 60, cause unknown. The patient has lost two brothers of "consumption," one aged 24, the other aged 17. Two sisters died young, cause unknown. He has one brother living, aged 42—healthy. There is no family history of tumours, insanity, or epilepsy.

Previous History.—He had a bad attack of gonorrhœa 18 years ago, with abscess in right groin, and epididymitis. No history of syphilis can be obtained. He has never had rheumatic or scarlet fever.

Present Illness.—He has suffered from pains in abdomen and at the lower part of his back for one year. The pain was of an aching, continuous character; it occasionally extended along the front of the right thigh to the knee. There has been no trouble in defæcation or urination, but the patient has found his bowels have tended to be constipated for last five or six months, he having to take purgatives frequently. There has been no vomiting, but occasionally he has felt sick; no cough. No history of intestinal hæmorrhage. The motions are well formed and normal in appearance.

State on Admission.—His weight is 9st. 11lbs. He is a very anæmic, emaciated man, with an anxious expression. He is not in any pain. He states he is steadily losing flesh and strength. Skin clear, presents no eruption.

Thorax. — Chest barrel-shaped; movement impaired. Some slight dulness at posterior right apex, with prolonged expiration. No moist sounds. Apex-beat of heart in normal position. Sounds normal; no friction.

Abdomen.—Liver and spleen not enlarged. Abdomen not distended; tenderness in umbilical and right iliac regions. Three inches above umbilicus and one inch to left side is a nodule the size of a hazel nut, adherent to skin, but moving freely on the deeper tissues. There is a swelling in the right iliac fossa; hard, quite dull, and tender on pressure. In the skin covering this mass are several nodular growths about the size of walnuts, moving on the deeper seated swelling. The right superficial inguinal glands are slightly enlarged, and freely movable.

There is slight œdema about the ankles. The urine, sp. gr. 1015, is clear and pale yellow. There is no deposit, but a trace of albumen and rhomboid-shaped cystals of uric acid. No casts.

Reflexes are normal; pulsation in femoral arteries equal. Temperature 98·6° Fahr. He was ordered Tinct. Opii ℥ x. Mist. Pot. Cit. Efferv., ℥j. ter die sumendum.

July 18th.—Quite free from pain. Bowels regular. Sleeps well. The appetite is very bad.

July 21st. — Going on well. Complains of pain along front of right thigh. Was ordered simple enema as bowels had not acted for two days. Gets up each day. Temperature normal.

July 25th.—Simple enema again, as there had been constipation for two days. No change to note in shape or size of tumours.

July 29th.—Temperature last night rose to 100·2°. He has had diarrhœa since July 27th. Was ordered enema Amyli. c. Tr. Opii. ℥ xxx.

July 30th.—At 4 p.m. seized with sudden pain in abdomen, referred to umbilical region. The diarrhœa had stopped on the 29th. Vomited, *for first time since admission*, at 10 p.m. Vomit grumous and very offensive in smell, almost stercoraceous. Abdomen tense. Clammy sweat on face. Temperature 100·2°. Was ordered hot fomentations, c. Tr Opii. to abdomen, Tinct. Opii. ℥ xv. tertiis horis.

July 31st.—Temperature 100·2°. Vomiting incessantly. Vomit this morning is of bright yellow colour no blood; comes on five or ten minutes after taking nourishment. Enema Olei. Ricini ordered, but nothing came away. Knees drawn up to abdomen; quite conscious. Whole abdominal surface acutely tender. Opium continued. Ice and effervescent medicine.

August 1st.—Death.

Necropsy.—Fifty-one hours after death; rigor mortis present only in lower limbs; very little subcutaneous fat. Left pleura contains ℥ij of serum. Right pleura firmly adherent all over. No new growth in the lungs. Heart.—Hypertrophy and dilatation of right chambers; no new growth, valves healthy; slight atheroma of ascending aorta. Abdomen.—Liver very fatty; no new growth. Surface of large and small intestines covered with recent lymph. Great omentum firmly adherent to right abdominal wall. A quantity of pale liquid fæces well up through an opening in the cæcum; a fair amount of sero-purulent fluid is contained within the peritonæal cavity. Spleen, normal. Much new growth seen on parietal peritonæum near cæcum. The commencement of ascending colon is quite blocked by three nodular masses of new growth; the growth is white and tough. The opening previously noted, from which fæces welled out, is in anterior wall of cæcum, and is irregular in shape, one inch long; its edges are thickened with new growth. The walls of cæcum are throughout infiltrated with growth; its mucous membrane is soft and shreddy, and the disease had evidently commenced there and spread outwards. Left kidney.—The cortical portion is almost entirely replaced by confluent masses of new growth, similar in character to that already noted. Medullary portion free. Right kidney, smaller than the left, is similarly affected, but to a less degree. Three large cysts (serous) in cortex.

Remarks by Dr. Harley. — Two influences predisposing to morbid action may be recognised here. Firstly, an inherited weakly constitution resulting in some members of the family in the deposition of tubercle. Secondly, gonorrhœal inflammation of the right inguinal glands some seventeen years before the appearance of the present disease. That the latter may have an influence in the production of this low form of morbid action I have no doubt, for I have witnessed two or three cases of severe pain, and nodular swelling of the glands in the neighbourhood of the cæcum during gonorrhœal inflammation of the right inguinal glands. The kidneys may have received an impression of the same kind from the urethral or vesical surface.

SCROTAL HERNIA—RADICAL CURE.

By H. H. CLUTTON, M.B., F.R.C.S.,

Assistant Surgeon to St. Thomas's Hospital.

A BOY, aged 1 year 5 months, was admitted into St. Thomas's Hospital in August, 1882, for the radical cure of a large hernia which completely filled and distended the scrotum. A truss was only partially

successful in retaining the hernia within the abdomen. The outline of the testis could be felt resting on the hernial sac. It was therefore probable that the hernia had taken place into the funicular portion of the processus vaginalis. The swelling had been first noticed a few days after the child's birth, and had increased considerably in size during the last few months.

The operation was performed on August 30th, 1882, with full Listerian precautions. The sac was removed entire, and the pillars tied together with stout catgut. A catheter with elastic tubing attached was tied into the bladder, and was successful for five days in preserving the dressing from being fouled. At the end of this time it had to be removed on account of the irritation it had produced. The antiseptics were also discontinued a few days afterwards, as they were so frequently soiled with urine, but the wound was then quite superficial. On the twelfth day there was very little discharge, and no external swelling, but deeply in the position of the inguinal canal a hard mass of inflammatory material could be felt. In another week it was soundly healed. He left the hospital shortly after without a truss, and has never worn one since. For some time a lump could be felt in the inguinal canal, but at the end of six months this also had disappeared.

Examined on March 24th, 1884, there was no difference to be detected, when the child cried, between the two sides of the abdomen. There was not the slightest impulse beyond the abdominal wall, nor any aperture into which to put one's finger. He was not wearing a truss, and never had worn one since the operation.

Medical Times and Gazette.

SATURDAY, AUGUST 30, 1884.

The International Congress at Copenhagen having become a thing of the past, the reflection at once suggests itself—what has it achieved? A very large number of gentlemen of various nations have met together, and have devoted a vast amount of energy and attention to an almost equally vast range of subjects. To attempt to gauge with any approach to accuracy the absolute gain that has accrued to the common fund of medical knowledge would be altogether premature with only a brief *résumé* of the proceedings before us. Of the general addresses, however, which have already been presented to the reading public, there can be no doubt that M. Pasteur's communication on hydrophobia will attract the greater share of attention, as, indeed, it did when delivered before an overflowing audience in Copenhagen. A general consensus of opinion, whether of his own or other nationalities, seemed to hail M. Pasteur as the hero of the Congress. Not only in the outward evidences of respect with which he was everywhere greeted, but also in the close attention to his observations in debate was this feeling manifested. The same might be said with respect to the position of Professor Virchow, in whose case, however, it was not by any means difficult to trace a tinge of political feeling on the part of many whose admiration for the man of science evidently struggled for supremacy over certain other sentiments with respect to the politician. The absence of Professor Koch was in a measure to be regretted, more especially as some of the sectional meetings were largely occupied with the subject of tubercle, and the opportunity was not lost for a discussion upon the practical value of the discovery with which his name is universally associated. It cannot be denied that the general tone of the speakers on the subject was somewhat depreciatory. The feeling that the diagnosis and prognosis of pulmonary phthisis remains in much the same position as during the last twenty years, was clearly expressed by many speakers, and only combated by a few.

The proposal brought forward by Sir William Gull in his address at Copenhagen (which appeared in our columns a fortnight ago), to found an International Collective Committee, met with no opposition, and we are able to announce that the following have been selected to be members of that Committee. Denmark will be represented by Trier and C. Lange; Scandinavia by Ed. Bull, of Christiania; Russia by Rauchfuss, of St. Petersburg; whilst Despine of Geneva is to do battle for Switzerland, and Bouchard, of Paris, and Lepine, of Lyon, are the champions of France. Austria sends Schnitzler, of Vienna, Pribram, of Prage, and Korányi, of Buda-Pesth; and Germany, Ewald and Bernhardt, of Berlin. We are represented by Gull, Humphry, and Mahomed, whilst Fayrer is sponsor for India. For the United States Jacobi, of New York, and Davies, of Philadelphia, have been chosen; whilst the interests of South America are concentrated in Gutierrez Ponce, of Paris. Dr. Isambard Owen is the Secretary-General. A goodly list of names indeed, and if success could be obtained merely from the names of those connected with it, this movement might be written down as already successful in the highest degree. The Committee lost no time in getting to work; they immediately opened a bureau where the secretary sat every day from one to three to give such information as was in his power to those seeking it. A memorandum on the objects of the Committee is to be prepared by the Secretary, for publication in the European and American journals, and as a preliminary step, a sub-committee has been formed consisting of Professor Humphry, Dr. Mahomed, and Dr. Isambard Owen, who are not the men to let the grass grow under their feet.

So far as Toulon is concerned, the cholera seems to be nearly a thing of the past, the number of deaths per diem having been steadily decreasing for some time, and the same may be said of Marseilles, though it is not true to the same degree, but there is good reason to believe and hope that the disease has nearly worn itself out in both of these towns. At Arles too the latest reports do not seem to indicate that the disease is gaining ground. Perpignan, however, adds a notable contingent to the death-roll every day, and at Sisteron and Nimes the epidemic is reported to be on the increase. In Corsica also it seems to have got a pretty firm hold, though the authorities do not display much alacrity in affording facilities to those desirous of ascertaining the exact state of affairs there. But it is in Italy that the cholera is at present expending itself mainly, at least six provinces being infected.

Scattered groups of cholera cases in Italian towns and villages on the French frontier and throughout the north-western districts, each at present small and localised, but forming so many nuclei or centres, ready to coalesce into a widespread epidemic, and now a sudden outburst in the seaport town of Spezzia, 70 cases and 30 deaths in a single day, following immediately on a heavy rainfall, are precisely the consequences we should have expected from our knowledge of our neighbours' habits and practices in matters relating to the public health. We have all along maintained, contrary to the opinions expressed by some men of great experience, that cholera does not depend for its origin or spread on any meteorological conditions or influences beyond human control; that it is even more than doubtful whether it can originate in Europe, and that its importation may be always assumed. But the seed must be sown on good ground, not on the wayside or rock, if it is to yield its harvest of death, and this the nations of Southern Europe seem incapable of realising.

Granting, for argument's sake, that no amount of fæcal pollution of soil and water, combined with such high temperatures as have been experienced of late, can originate true cholera, whatever other diarrhœal diseases they may give rise to; they might enjoy immunity amid their filth if they would and could shut themselves out from all communication with other countries. But this is manifestly out of the question. Passengers by steamboat and railway may be arrested and confined, but who is to watch every country lane, and to board every fishing smack or coasting craft? And the very persons whose immigration is most to be feared, the poor and panic-stricken fugitives from cholera-smitten towns are just those who will find a way to evade such precautions. Sanitary cordons on land are a delusion and a snare, and quarantine in narrow seas is little better. The poison will be *smuggled* in; no word so well expresses the mode of its introduction and the practical impossibility of excluding it. But if, with the example of England and the teaching of the highest authorities in Germany before them, our Latin friends would take to heart the lessons of the past, the mortality from the present epidemic might lead to an incalculable saving of life from many other causes in the future. The only way to protect themselves from the inroads of cholera, and to reduce for ever the high death-rate from typhoid, diphtheria, diarrhœa, &c., which now disgraces so many of the fairest cities of the South is to be found in the rational disposal of excreta, and the provision of pure water supplies.

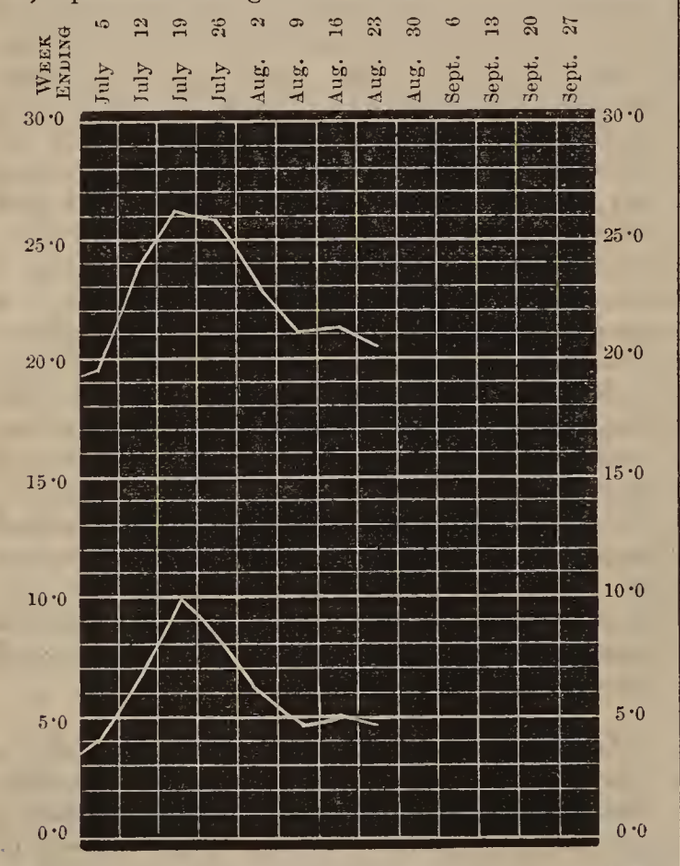
The occurrence of the outburst of cholera at Spezzia immediately after a heavy rainfall is most significant, and admits of but one explanation. In a well sewered town, deriving its supply of drinking water from sources beyond reach of contamination, such an event would have had precisely the opposite result. But where the infected excreta are habitually thrown on the open ground and trickle along the street gutters, or from pervious cesspools soak into the surrounding soil, the effect of a heavy rain is to cleanse the streets by carrying the filth into the nearest water course, on which the inhabitants probably depend for their supply of water for all purposes, and to raise the level of the wells to that of the excrement-sodden surface soil. The real and only defence against cholera will be found in measures for the speedy and complete removal of excreta from the proximity of the houses, either by well made sewers or some form of pail system, and the supply of water from irreproachable sources, which should not be difficult in a country traversed by mountain ranges; but neither exist, even in the capital itself, and we do not suppose that Spezzia is an exception to the rule.

The possibility of an invasion by cholera continues to occupy a leading place in the public mind, and the correspondents of the daily papers are evidently impressed with the necessity of being the first to announce the fact whenever a case does occur. As regards the stowaway who died in a union in the county of Waterford last week, it is understood that Dr. Brodie has reported to the Local Government Board that he could find no evidence that the disease was of an infectious or epidemic nature. There was nothing antecedently impossible in the history of the case, so far as we have been able to ascertain it, as regards the theory of Asiatic cholera, but on the other hand, it is not such a very unusual thing for a man, after exposure to a good deal of privation of all sorts, to succumb rather rapidly to an attack of diarrhœa. In any case, however, it cannot be denied that a case of cholera might find its way into the country, notwithstanding all the vigilance of our Port Officers of Health, and the recent report of the Local Government Board to Sir Charles Dilke should therefore be made known as widely as possible. It contains nothing new, but it once more emphasises the fact that "cholera derives all its epidemic destructiveness from filth, and especially from excremental uncleanliness," and urges the necessity for the prompt removal of all excremental products, and the most scrupulous care that the water supply shall be free from all pollution, and especially from excremental contamination.

Miss Emily Faithfull writes to us that she is about to open an institute for first class private nurses, through which, by abolishing all vexatious restrictions and excessive payments, they may reap the benefit of their own toil and be enabled to save a portion of their earnings for the time of need. Such a movement deserves, and we have no doubt will obtain, the hearty support of the profession. It must have occurred to everyone who has had much experience in the matter that the system of farming out private nurses, which is practically what the homes do, may, unless worked with exceptional liberality and sagacity, prove most unjust to the nurses themselves, and not most advantageous to the patient or the doctor. We believe that of late years the number of nurses engaged in private work on their own account has greatly increased, and we have always felt that they deserved every encouragement; and if Miss Faithfull's scheme should have the effect of inducing others to refrain from selling themselves to some institution, it will have done a good work.

The value of a good private nurse is every year becoming better appreciated by the public, and the proposal now made, by giving the nurse a more direct interest in her work, cannot fail to raise the standard even higher than it is at present.

Although there has been a further decline in the death-rate of London during the past week to 20·5 per 1,000, yet it has not sufficed to counterbalance the terrible mortality of the latter half of July, and the average death-rate for the first eight weeks of this quarter has reached the high figure of 22·7 per 1,000, being 2·5 per 1,000 higher than for the corresponding period last year, and no less than 4·0 per 1,000 higher than that of the year before. The zymotic death-rate has also exhibited a further decrease, but it has not yet got back to the level it steadily maintained during the first weeks of the present quarter. Whooping cough ranks highest of the zymotic diseases with 36 deaths, followed by scarlet fever with 32, and measles 28, diphtheria closing the list with 19. When we re-



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the first eight weeks of the current quarter.

member the number of deaths due to the sequelæ of these diseases, especially the two last, we cannot but feel that 105 deaths, high as the number seems, and is, do not by any means represent the whole mortality due to this cause. Of the 28 large towns, Preston claims the highest general death-rate, 39·3, whilst Norwich heads the list in the zymotic category, with an average of 19·6 per 1,000.

In the course of last year outbreaks of diphtheria and enteric fever at the borough of Calne, in Wiltshire, rendered a visit from a representative of the Local Government Board eminently desirable, and Dr. Blaxall was deputed to report on the sanitary condition of the town. In his report, which has recently been placed in our hands, Dr. Blaxall commences by pointing out the changes which have taken place since his visit in 1874, and shows that many of the existing evils are still present to which he then called attention, which would have been entirely obviated had all the recommendations which he then made been carried into effect. The outbreak of diphtheria commenced in May, 1883, and terminated in December, 84 persons having suffered in all, of whom ten died. The outbreak was clearly traced to two sources of personal infection, and in each instance the schools proved a most fertile soil for the propagation of the disease. Had the proper accommodation existed, it is tolerably evident that the disease might have been stamped out at once by the isolation at an infectious hospital of a servant girl who introduced it. There was not much evidence that insanitary conditions played any important part in connection with the diphtheria. As regards the outbreak of typhoid fever, however, it was quite otherwise. This was confined to a row of ten houses, of which one at one end and three at the other alone supplied any cases, the intervening houses all escaping. Out of fifteen persons occupying these houses, seven were attacked and one died. The row was in close proximity to a sewer which received the drainage from two slaughter houses, which Dr. Blaxall ascertained by personal examination to be exceedingly offensive, partly by reason of the animal matter in the shape of blood allowed to run into the drain, and partly owing to the use of hot water to clean out the slaughter-house, this naturally encouraging the decomposition of any animal matters. In addition, there was a ventilating hole from the sewer close to one of the houses, which had long been a nuisance and the source of constant complaint. Two of the houses had drains in direct communication with the sewer, the sewer air escaping into the dwellings, so that, after the occurrence of the first case, the cases in these two houses might clearly have been due to direct contamination with the specific poison. The chief faults Dr. Blaxall found were, that the construction of the sewers was defective, that they were insufficiently ventilated, and that a large quantity of offensive matter was allowed to pass into the sewer from the slaughter-houses instead of being burned.

Some months since a committee was appointed by the Suffolk District Medical Society to investigate the whole question of the milk supply of Boston, U.S. The committee is still prosecuting its useful work, and has recently presented a preliminary report, which deals mainly with the sources of supply and the manner in which the milk is collected, conveyed, and distributed. The report closes with a suggestion for the establishment of "milk stations" in accessible and well-known localities in the city, possibly in connection with the district dispensaries or with certain drug stores, to which the poorer people, and particularly the sick, might be referred by physicians and others. Provided with the necessary ticket or voucher, such persons would thus be able to obtain a supply of pure milk at a cost within their means. As a method of bringing pure and wholesome milk within the reach of the

inhabitants of the poorer parts of the city, such a plan is worth trying, and, if attempted, the experiment deserves to succeed. It is not a pauperising measure, and the poor are very generally shrewd enough to know that it is to their own interest to purchase good and genuine articles rather than "cheap" of fictitious value. It is by the fault of their circumstances, and to the shame of the small shopkeepers, rather than from an inherent love of false economy, that they are "compelled to buy, as is now too often the case, milk which has been diluted, sometimes to the extent of 60 per cent." In the same report we find corroboration of the views that, while the farmer and his milkers are answerable for much in the way of dirt and of carelessness in cooling the milk, it is the distributor—or his *proxime accessit*—who is responsible for the mixing, the staleness, and the watering. The contractor is sufficiently on the alert in detecting any sophistication of the milk sent to him from the farms, and appears to have devised an effectual method of dealing with such cases when they do occur. We are told that if a farmer waters the milk, it is immediately returned, and to every man who comes to the car, it is whispered very privately that Mr. X. has been caught, with a request "not to say anything about it." In a few days all the town knows it, "and if the man chances to be a Church member, his punishment seems to be adequate."

The fifth International Congress of Hygiene commenced its labours at the Hague, on Thursday week, in a business-like manner, and without much flourish of trumpets. Cholera would naturally at the present time claim a large share of the attention of such a gathering, and accordingly we find that the first section opened its proceedings with a discussion on this subject, introduced by Dr. Proust, who has, it will be remembered recently been investigating the outbreak at Toulon. Over-pressure in schools formed the subject of another debate, introduced by M. Huizinga, who denounced the modern system of education as conducive to the passing of examinations perhaps, but not as leading to the acquirement of real knowledge. On Tuesday last there was a debate on cremation, which aroused a very considerable amount of interest, and later on in the day the members of the Congress were entertained at a grand soiree given at the castle of Count Bylandt. The absence of Pasteur through ill-health has been the subject of general regret, as he was expected to have made a communication on preventable diseases. A committee of five has been appointed to consider the question of rags as an international danger; England will be represented on it by Professor Corfield. The Congress does not seem to have attracted that share of attention from the profession which the importance of the subjects with which it deals would fully entitle it to receive. This may be due to the fact of the Medical Congress having been held so recently, and at no great distance from it. Let us hope that this is the chief reason, for it is a perfectly intelligible one. He would indeed be more than an enthusiast who would, after a week's hard work at Copenhagen, care to rush off to the Hague for another, for after all the majority of men who go to these Congresses do work really very hard.

We are asked to state that the Winter Session at the Westminster Medical School will be opened on October 1st, at 3 p.m., with an introductory address by Dr. Hughes Bennett.

Last Monday the electors of the Belfast Royal Hospital met to appoint a surgeon to the institution in room of Dr. M. Moore, whose term of office had expired. There was considerable interest shown in the election as upwards of 100 life governors voted upon the occasion. Dr. Wheeler, who was already upon the hospital staff as an assistant-surgeon, was elected by 83 votes against Dr. Sinclair, who only polled 25. Dr. M. Moore's name was placed upon the list of Consulting Surgeons of the charity. The vacancy caused by Dr. Wheeler's election to the staff-surgeonship will be filled next month. There will probably be no opposition to Dr. Barron, who presents himself for the post. The term of office of Dr. J. W. T. Smith, who is senior physician to the hospital, had also expired, but as he was willing to accept office for a further term, he was unanimously re-elected.

Our contemporary, *Le Progrès Médical*, has once more found it necessary to call attention, in no unmeasured terms, to the spread of infectious diseases in the children's hospitals in Paris. For years it has not ceased to point out, in common with the other medical journals, though perhaps with more persistence, the great loss of life due to this cause, and these remonstrances have been so far successful that for the last few years diphtheria cases have not been treated in the general wards. But there its success ends up to the present, and its leading article of last week is written with a view to getting the rule enforced with regard to diphtheria put into practice in regard to measles, whooping cough, and scarlatina. Our own experience would have taught us to treat all these as more infectious than diphtheria, but this may partly be due perhaps to the fact that diphtheria is never so rife with us as it is in Paris. That there is urgent need for reform in the matter complained of is shown by the fact that in one year 52 children contracted measles and 30 died from it in the practice of one physician alone at one of the hospitals, and the writer of the article we are alluding to shows that assuming the other physicians to have a similar experience, and there is no reason to suppose that they had not, this would give an annual mortality, from measles alone, of 250 children admitted into the hospital for some other ailment; and making allowance for the deaths from scarlatina and whooping cough under similar circumstances, the total number of deaths caused in this way may be set down as 500 a year.

Such a state of affairs is simply scandalous, and has only to be made known to be condemned on all sides. All who undertake the charge of the sick, laymen as well as medical men, have one prime duty towards them, and that is to be quite sure that they do not do them any harm. Now to take a child into a hospital and to

put him into a bed alongside a case of measles, or to bring a case of measles into a hospital and put it into a bed adjoining that of a child in for some other ailment, is an act which under some circumstances might with perfect truth be said to differ only in degree from the putting of poison within reach of a child, and disclaiming afterwards any criminal intention. If hospital authorities wilfully expose a child to the contagion of measles, or other infectious disease, and if the child die from the disease so contracted, we must confess ourselves unable to distinguish between the crime of manslaughter and conduct of this kind. In London the general wards of our children's hospitals are closed most resolutely against any form of infectious disorder, and when such a case does by accident find its way in, and such occurrences will take place notwithstanding every precaution, the child is sent out without a moment's delay, either to a separate ward, or very often to a fever hospital. We doubt whether any of the physicians or surgeons attached to our children's hospitals would consent to serve in their present posts if the rules observed in the Paris hospitals were in force here.

Dr. Daunt, writing from Campenos, S. Paulo, Brazil, sends us some facts of interest to naturalists. The Municipal Chamber of the city of Porto Alegre, capital of the southernmost Brazilian Province of S. Pedro do Rio Grande do Sul, has ordered the uprooting and destruction of all the trees of the genus *Eucalyptus* planted and existing in the district, in virtue of the allegation that the *Eucalyptus globulus* and other species favour the production of the *Jequitirana Boia*, whose sting is irreparably mortal in a few minutes. This insect is a sort of large dragon fly, whose chief habitat has hitherto been the interior province of Goyaz. It seems to be the analogue of the Tsetsé fly of Africa. It attacks all living creatures. The Eucalyptus genus is therefore becoming "a suspect" in Brazil. The *Jornal do Commercio*, of Rio de Janeiro, of July 2nd, contains a notice of a curious parasitism which consists in the constant presence of a *crustaceum*, genus *Cymothea*, in the mouth of a fish, *Xiphoramphus hepsetus* (Cuvier), in the river Paranahyba, on the boundaries of the Provinces of Minas-Geraes and Goyaz. The description is very interesting, and proves the high degree of culture of the natural sciences in Brazil. It is a curious fact that in other rivers where this fish is found, the crustaceous parasite is absent, while in the river above named it is invariably present. The 55th Anniversary Session of the Imperial Academy of Medicine has recently been held; the Emperor and his son-in-law, the Count d'Eu, were present.

We were somewhat surprised at perusing in a journal of such well deserved reputation as the *Philadelphia Medical Times*, the editorial reply made to the question "Is embryotomy (craniotomy?) justifiable while the child is living?" This question was put in deprecation of an approval which had been expressed by Dr. Busey, the President of the Washington Obstetrical Society, of the position laid down by Dr. Barnes that "when the hard alternative is set before us, our first and paramount duty is to preserve the mother, even if it involve the sacrifice of the child." If ever a subject has been maturely and anxiously considered, this one has; and we were under the belief that Dr. Barnes was only stating a conclusion that has received such general assent as to have become axiomatic. Not so, it seems; for the editor of a journal, supposed to represent the most advanced thought of our day, declares that "it would be more correct to say that the destruction of a living child in order to save the mother has never been allowed by the best men in our profession from the earliest times until now, except by Arabian and German and English midwives." We do not understand whether the writer wishes it to be understood that America is free from the perpetration of so great a crime, but if so, he is rather inconsistent in adding that the pernicious doctrine "taught by Dr. Barnes has much to do with the fearfully prevalent crime of fœticide"—which as we all know predominates in some parts of the United States, not only among the destitute and ignorant, as elsewhere, but also among the wealthy and the indolent.

In conferring upon Dr. W. C. Hoffmeister the dignity of a knighthood, Her Majesty has shown her appreciation of a long and honourable career, many years of which, in part at least, have been spent more or less directly in her service.

THE NEW TEMPERANCE MOVEMENT.

The alternate and countervailing influence of action and of reaction is as much an ethical as a mechanical law. The pendulum of public opinion is always swinging in one direction or the other; although the mean of its excursions becomes less and less as knowledge grows wider and is more intelligently applied. In many respects the present is a period of reactions; that is to say, we may congratulate ourselves that in not a few instances our practice in carrying out the details of modern life is tending to the norm rather than diverging from it. And it is significant that, at a time which resounds with the cry for something more than moderation in drink, there is arising a demand for something like moderation in our methods of education. The parallel which might be traced between what may be called educationalism and alcoholism, does not, fortunately, run very far, but its extent is sufficient to be suggestive. Of alcohol as of the modern scheme of education, it may be said that each has been regarded by its partisans as the *elixir vitæ*; that both are capable of abuse and of adulteration; and that neither can be employed to advantage without the careful exercise of a discriminating judgment, and of continuous watchfulness. Alcohol is not necessary to those in robust health; over-indulgence, and especially precocious indulgence in it, induces a train of mischief from which the whole organism, and the nervous system in particular, inevitably suffers. On the other hand, while education is the natural—we should rather say, the necessary—complement of the physically healthy human being, its methods, if too zealously or carelessly applied, may blunt or overstrain the dawning powers of the young scholar, whose mental development needs often to be guided and guarded rather than to be driven and stimulated. It is not difficult to admit, on theoretical considerations, that each of two

such apparently dissimilar things as alcohol and education may have its use, and that each is liable to abuse; or that the heedless employment or application of either is likely to be followed by results which are sure to lead in time to a demand for moderation and reform. With respect to alcohol we have, unfortunately, only too good reasons for acknowledging the existence of excess, and for setting forth the virtues of moderation. In regard to the educational systems of the day, we stand on newer ground; the data at our command are derived from a shorter period and are, from the very nature of the enquiry, necessarily imperfect, but they are sufficient to enable us to form some definite conclusions which are not inconsistent with the teachings of physiology or opposed to the general consensus of experience. In this matter we believe that the opinions which have been expressed by those members of the profession who have paid special attention to the subject, have been, to a considerable extent, misunderstood, while their opponents do not always appear to understand themselves. Medical men do not undervalue education, but they regard schooling as only a part of it. Real education is to acquire the art of knowing, not merely to know. It implies all the difference between the poet and the parrot, between a Babbage and a calculating machine. It is the training of the powers of observation and of reasoning, with the coincident development of the physical agencies by which these powers are exercised. And its value is degraded, and its true relations woefully misunderstood if we regard the period for its acquisition as anything shorter than that of life itself. For the attainment of a result so vast and intricate, it follows that the foundations must be sound and thorough. But these foundations are laid in the training of young brains and bodies whose powers are just budding into activity, and at a time of life when the whole energy of the organism is often hardly taxed by the demands of mere existence and growth. Under these circumstances is there not need for care, is there no risk of harm, no unlikelihood of serious mischief being suffered and of the real value of the object in view being overlooked? Is it remarkable that those whose business implies familiarity with disease should be the first to detect a mischief which is greatly a question of degree, and should be the most earnest in warning against evils which others are unfortunately less able or less willing to appreciate? Surely it is unfair to blame the doctors for attempting to give advice in time—as though the signalman should show his danger lamp only when the collision has actually occurred; and it is, to say the least, unbusiness-like to treat such warnings and advice either in a purely partizan spirit or with a perfunctory heedlessness which would not be displayed in relation to any other business of life. The allegation of overpressure in connection with Board and Elementary schools has been established in comparatively few instances. Had it been otherwise, the conscience of the profession would have been less clear, for it would have been proof that there had been gross oversight or criminal silence respecting a great evil. Whether the charge has in all cases been investigated or dealt with fairly, is another question. Mr. Pridgin Teale's pungent criticism on the report of the Leeds' School Board Committee is within the recollection of our readers, and it is to the point. With reference to one of the smooth things lately prophesied in Parliament, Dr. Crichton Brown (who shares with Mr. Teale the honour of having his communication to the authorities relegated to a sort of *index expurgatorius*) states that it is quite true that the deaths from brain and nervous diseases amongst children have distinctly declined throughout the period during which the Education Act has been in operation; but he points out that a closer investigation of the statistics reveals a less satisfactory state of things; that the deaths from hydrocephalus (the disease to which the Registrar-General's returns mainly refer) of children under five years of age, have decreased very steadily in accordance with the spread of hygienic knowledge amongst the people, but that the deaths from the same cause amongst children at the school age (from five or seven to twelve) have undergone a very considerable and regular increase every year during the same period, and are continuing at the same progressive rate.

After a perusal of the Educational Blue Books for 1883–84, the existence of "overpressure" to some extent amongst the scholars in elementary schools must be admitted from the reports of the inspectors themselves; and we contend that whether this overpressure be due solely to the burden of an excessively exacting code; or to the mistaken zeal or, unwise methods, or reckless ambition of teachers; or to the struggle of a small school to make both ends meet by earning grants on the extra "class subjects;" or to the carelessness and ignorance of the managers, or, lastly, to the underfeeding and other physical disqualifications of the school children; wherever and whenever it exists, the medical observer is bound to notice it, and to protest against a system which allows it. The question of remedy is no doubt difficult enough, but his first business is to see that the evil does not go undetected.

It is not to be supposed that educational overstrain is confined to the scholars and pupil-teachers in elementary schools. Like every other organ of the body, the brain requires exercise, and is distinctly benefited by work proportioned to its capabilities. But give to the child who has such a brain—and a conscience—over much work of one sort to be done within a limited time, or work of different kinds under the same conditions, and you import into the problem the new and all-destructive factor *worry*. Worry of this kind appears on analysis to consist in the endeavour to do or to think of two or more things at once, so that one part of the brain is not at rest while another is working, and there is no chance of "turn-and-turn-about" in its labours. Hence, while worry is doubtless to some extent imported into the mental difficulties of the Board School children, it is much more common and more wearing amongst the more finely strung, the more conscientious and the more ambitious children of higher class schools. Mrs. Garrett Anderson has recently pointed out that in the middle-class schools—and especially those for girls—the temptations to and the existence of overpressure are considerable; and she rightly indicates that it is the mothers who should exercise the observation and supervision required for detecting, as they

possess the power of checking, the evil in its earlier stages. This aspect of the question loses none of its gravity when we reflect that the schoolgirls of one generation become the mothers of the next. The nervous organisation and the nervous failings of the mother tend largely to be transmitted to her offspring; and there are but too serious reasons for dreading lest the precocious stimulation and premature exhaustion of nervous energy which educational fashion is now apt to entail upon so many schoolgirls should be visited with more dire results upon their children.

The whole subject is one of national importance. It deals so directly with our position among the nations of the future that it cannot be dismissed lightly unconsidered. It comprises problems so difficult and involved that it cannot be settled offhand. And it is capable, if rightly dealt with, of yielding results so grand and gratifying as to be well worthy of the ungrudging expenditure of the time, the labour, and the money which are needed for its adequate solution. National feeling is being aroused, and the question is beginning to be asked whether, in carrying out what was confessedly a novel departure in State education, we have not been too exacting in our demands, too stringent in the application of generalisations. Let the evidence be collected and discussed fairly and dispassionately, as becomes the subject. Let us be grateful for warnings whose value must be proportionate to their timeliness, and still more grateful if the fears to which they have given rise should turn out less serious than had been supposed. If mistakes have been made, let us acknowledge them and see to their repair, bearing in mind that repentance is much less bitter as it is less costly than remorse.

In this matter, as in the great "drink question," the object of the profession has been to avoid extremes. We would not shut up the schools any more than we would advocate drunkenness; but we would not hold silence while a well-fed child was being overworked, or an ill-fed one worried into disease, any more than we should refuse to prescribe alcohol as a medicine for a patient whom we believed to need it; and both, as regards mental work for the child and the use of alcohol by the adult, we preach the golden mean of moderation. What moderation consists in is a question which can only be decided on the individual merits of each case; but to do so is not impossible. It involves the outlay of some trouble, and requires the habit of looking things honestly in the face; and, not being a fixed quantity, from time to time it will require a certain amount of re-adjustment. But most things in this world involve trouble in the doing of them; and no good work can be accomplished without it.

SEASONAL REGIMEN.

The standard work on the practical physiology of the seasons yet remains to be written. Popular opinion on the subject comprises a number of old saws, each of which—as is the case with most of its class—either contains a paradox within itself, or is flatly contradicted by another of its fellows; together with a variety of general impressions, as that fat may be freely eaten in cold weather, while its ingestion in summer (save in the form of cream and with strawberries) is provocative of biliousness, and that to change heavy clothing for light unless hot weather has been in force for some time is to incur the risk of chill; while the practical outcome of precept, action and example, is seen in the way in which people suffer during the rare real summers whose absence it is their custom annually to deplore. No doubt fashion is largely responsible for the torments of mankind in such matters, but ignorance, real or assumed, makes possible the subservience to fashion's rule. It can scarcely be doubted that a wider knowledge, and more honest efforts to appreciate the knowledge which we already superficially possess, would make the fashion of our daily lives throughout the year as much pleasanter as it would be more healthful and health-giving. The whole subject is as wide as it is interesting, and it is impossible to do more than hint at one or two of those mistakes which have been emphasized by the unusual weather through which we have been lately passing. Summer-tide means for us, primarily, a rise of external temperature, an increased supply of heat; and one resultant of the altered relations of the heat exchanges proceeding between our own bodies and surrounding media is a diminished heat loss, which means a lessened need for heat production in proportion. The three great factors concerned in maintaining the body at a constant temperature are tissue-metamorphosis, nervous adjustment, and radiation and conduction. In warm-blooded animals metabolism is lessened by increase of external temperature; *i.e.*, the great source of heat production becomes less active in proportion as the need for its activity diminishes. Less rapid tissue-change means less waste, and so less repair—in other words, less need for food, especially that of a readily oxidisable kind, and an appetite, therefore, less demanding: just as the same kettleful of water may be made to boil at Cayenne with a smaller expenditure of fuel than would be required at St. Petersburg. On these premisses only, a typically healthy warm-blooded animal should maintain its weight and perform its work as well in summer, though with a diminished food-supply, as in winter. There are, however, other factors which require attention, while the humanity of the present century is rarely of the typically healthy type. In addition to a higher temperature, summer brings sun-light, increased both in quality and in amount, and one of the special attributes of sun-light is its power of stimulating tissue-change in organic bodies; so that while our metabolism is lessened by mere heat, it is, on the other hand, increased by the influence of the sun's light rays; whence it follows—that, in order to ensure that amount of tissue-change requisite to the maintenance of health generally, and of the normal bodily temperature in particular, less violent exercise, or less of it, will suffice in bright sunny weather, and that exercise will be carried on in the shade with less fatigue than in direct sunlight; facts which are as important and as applicable to the healthy as to the sick and the convalescent. When we notice how a continuance of hot weather tells on young children, we must not forget that the little child in average health is always active, and that its muscular activity indeed is usually more marked in the summer

weather, which, in our climate, affords such special temptations to facilities for out-door exercise. Children of larger growth are apt to overdo their opportunities in the same direction. During the darker months a man will spend his evenings in an easy chair by his own fireside, in his library, or at his club; in summer-time, after an equally hard day's work, he occupies the lengthened hours of daylight with more or less violent exercise on the tennis lawn, or the river, or he toils like a labourer in his garden, "getting three days' work out of one," and not rarely succeeds in attaining something of that result which inevitably attends the operation of burning the candle at both ends. Many go far towards neutralising the benefits of their holiday by an excess of muscular exertion to which the changed surroundings and the sense of freedom tempt them, but for which the previous months of sedentary life have not afforded an appropriate training. Direct and prolonged exposure to excessive sunheat has, of course, special dangers of its own; and just as the effects of insolation are shown chiefly by disturbance of nerve-function, so it is those in whom the activity of the nervous centres has been most developed, as in highly educated adults, and those in whom it is most susceptible, as in children, that its effects are more readily produced, and are most disastrous, other conditions of bodily health and vigour being equal.

Summer feeding is a question of importance; but the hints which Nature thrusts upon us from all sides for our guidance, are too commonly disregarded; although, when they have been followed, mankind has arrived empirically at the same practice, which theory can do no more than reiterate and justify. We may take it that, except in those cases of special muscular exertion, the proteid elements of our food may be considerably lessened with advantage. At the same time a larger amount of water must be ingested to compensate for the increased exhalation from the cutaneous surface, and to furnish by its evaporation an efficient agent in maintaining the temperature of the body at its proper level; while we must not forget that this free flushing of all the organs of the body itself favours metabolic changes, and so will somewhat augment the demand for more substantial nourishment. Further, since a certain volume of both ingesta and excreta is necessary to the due performance of their functions by the stomach and intestines, it is desirable to substitute for that part of the nitrogenous dietary which has been omitted something which, while not being necessarily assimilable, shall provide the requisite bulk, and which may also usefully serve as a vehicle for introducing water into the economy. Such conditions are secured by the fruit and vegetables with which summer provides us generously and *àpropos*. Vegetable tissue is rich in water and contains an appreciable quantity of inorganic salts, while its cellulose, though not assimilated by us, affords bulk to the intestinal contents without stimulating to an unduly rapid peristalsis. Without adopting the creed of the vegetarians in its entirety, omnivorous man may with undoubted advantage assimilate his dietary to theirs, to an extent somewhat greater than is usually practised. Healthy living is under all circumstances and for all people very largely a matter of habit and custom; but no one who has experienced the case and comfort with which, week after week, a good day's work may be accomplished under a tropical sun when the mid-day meal consists of nothing more substantial than a slice of bread and half-a-dozen bunches of grapes, will deny the advantages which accrue from a liberal infusion of the vegetable element into a hot weather dietary. In England we can never enjoy the flavour of an orange, ripened to perfection on the tree, and shaken, with the dew upon it, from the bough during the stroll before breakfast; but during the summer months we can add to that meal, with economy both of health and purse, some at least of the garden fruits whose best uses we are apt to overlook, as well as the small saladings which make an intermittent appearance at the table. At luncheon again, fruit—always sound and not over-ripe, of course—and salad will advantageously form the staple of the ménu; and the habit of eating fruits with cream or milk enables us to introduce into the system a good supply of light and easily assimilated nourishment with more ease and pleasure than attends the ingestion of some of the grosser forms of food. Dinner is, for most of us, best taken when the brunt of the day's work is over, and should be the most substantial meal. But at dinner fruit is almost invariably offered at the wrong time. The dessert which appears on the table from the beginning, "to lure the appetite from course to course," might well take the place of the soup with which the meal commences. Certainly the most unphysiological and undesirable time for attempting the digestion of raw fruit is at the end of a substantial meal; and it is not the digestive powers only which would benefit by a reversal of our customs in this respect. Fashion and tradition, however, are forces not to be modified at once; and perhaps it will not be until the unremunerative character of some of our older branches of agriculture has driven the English farmer to adopt fruit growing on a large scale, that we shall allow ourselves to appreciate the advantages of that dietetic programme which, year after year, Nature patiently unfolds before our eyes. Come when it may, we need not fear that our countrymen of that age will suffer in mind or in body by the change—in temper or in temperance—though the status of their national roast beef be somewhat jeopardised thereby. They were wise and genial human sprites whom the witty scholar, Thomas Randolph, made to find their recreation *inter poma, lac, et vinum*.

ARMY MEDICAL DEPARTMENT REPORT FOR 1882.

[First Article.]

Possibly not many of our readers would care to make a study of this report, for it is now two years old, and events follow each other so rapidly, that even the story of Lord Wolseley's Campaign has lost much of its interest for medical men. The unavoidable shortcomings of the Army Medical Department in the Egyptian War have been studiously forgotten and condoned; and possible improvements in organisation have been carefully avoided, in the interests of economy.

But it is worth while to examine the successive

reports as they appear, for we always gather from them a notion of the difficulties with which Army doctors have to contend; and we learn to comprehend the enormous strain to which the Department is subjected when it is suddenly called upon, with its peace establishment, to meet the emergencies of war, to say nothing of its multiplied duties when epidemics upset the balance of disease in tropical climates.

We have also to recognise the difficulties of medical men, called upon to arrest preventable diseases *which cannot be prevented*, and preventable diseases which public opinion will not suffer to be controlled. In the report for 1882 we find the very nature of the Egyptian Campaign preventing sanitation from preceding the advance of troops; and in the prevalence of syphilis at various stations, we notice the indifference or the dislike of the public to measures of prevention. But in addition to the work thrown upon the Medical Department by undue economy, weak legislation, and the operations of war, we are told, in the present report, to look for a fresh source of disease and inefficiency in the composition of the Army itself. We are reminded that ours is a short service Army, and that our boy soldiers are victims to enteric fever to an extent formerly unknown. Acute observers are of opinion that "there are grounds for supposing that changes in the constitution and organisation of modern armies have greatly tended to increase the prevalence of enteric fever. Armies are composed of younger and less acclimatised men than they were. Under the short service system a large body of men of the ages most liable in all countries to enteric fever, are being subjected also to another predisposing cause of this fever, in that they have periodically to undergo those constitutional or physiological changes, commonly called 'Acclimatisation,' or the vicissitudes of field service in tropical or sub-tropical climates." We may remark that "enteric fever" pervades the whole report for 1882. Other topics of interest crop up, but only to be replaced by remarks on this destructive disease. Indeed "the Authorities" seem to have become impressed with a vague sense of coming danger, or else it is by a happy accident that the report has ceased to be "a Blue-book," and now flaunts the emblem of sickness in its yellow coloured binding. We shall have to notice enteric fever, as it is recorded in the various returns from home and abroad; but we must take things in due order and first give a glance at the statistical report for the whole Army.

We find that in 1882 the Army at home and abroad numbered 174,557 warrant officers, non-commissioned officers and men, and that the admissions into hospital of this force were 190,880, and the deaths, 2,145. The death-rate, calculated per 1,000 of the average strength was 12·06. It ranged from 6·94 in the United Kingdom to 88·90 in Egypt; while in India it was as low as 12·82 per 1,000.

War and epidemics derange statistics dreadfully, and although we note that on the average of 1872 to 1881 the death-rate for India was 19·22 per 1,000, we should not jump to the conclusion that sanitation had made gigantic strides in India during 1882. There is little difference indeed in the total death-rate of the whole Army during the last ten years. We have said it was 12·06 per 1,000 in 1882, and it was 12·66 on the average of 1872 to 1881.

If we look at the influence of age on mortality, we come to the conclusion that the soldier's life has many risks. The deaths among soldiers under 20, averaged 3·86 per 1,000, while in the healthy districts, the civil male population of the same age gave a death-rate of 5·83. So the soldier *begins* the race of life with every chance in his favour, but he rapidly deteriorates; and between the ages of 30 and 35 soldiers at home die at the rate of 9·59 per 1,000, while at the same age civilians in healthy districts give a death-rate of only 8·36. We observe that no less than 3,389 men were discharged as invalids in 1882. It is no direct business of ours perhaps, but it is impossible not to wonder at the future of these invalids. They have no pensions, they are presumably unfit to resume the occupations which they left when they entered the Army, and private charity and benevolence can hardly support for many years such a constant supply of cripples. It seems rational to suppose that any Reserve Army which may be formed in the next ten years, may be equalled in numbers by a disorganised corps of broken down men, who cannot work; and although we trust that the teaching bestowed upon them in the service may be sufficient to make them resigned to misfortune, and obedient to authority, yet we cannot help suspecting that society is nourishing a dangerous crew, unless indeed, the invalids are so utterly crushed by disease, as to form only a harmless body of helpless, hopeless paupers. We pass on now to the statistics for the year's recruiting. The number of recruits inspected during the year was 45,423, of which 19,294 were rejected as unfit. Out of every 1,000 inspected, 595 were labourers, and of 27,020 labourers, no less than 11,416 were unfit for soldiers. We notice that the causes of rejection number 41. It may be that the list of causes could be reduced without danger, but the proportion of men objected to for defective vision, disease of the heart, want of height or chest measurement, does not lead us to imagine that visions of glory have been the temptations which induced numbers of young men to attempt to be converted into soldiers. Every now and again there is an outcry of want of soldiers, and we never know whether to be patriotically glad or sad when we are told that the ranks are getting speedily filled up. Martial enthusiasm seems to increase so rapidly in company with national distress, and the stagnation of agriculture and trade. The tables for the age, height and weight of recruits for 1882 are not complete, but we do not attach much importance to these returns as affording causes for rejection. We have learned that the War Office can play fast and loose with age, height and weight when *numbers* are required to swell the lists of an Army on paper. Secretaries for War who can direct their medical officers to be *more strict* when too many recruits offer, can equally well assume the power to order them to be *less strict* when the recruits are too few. Such returns do not teach us much. They inform us of the number of boys and men passed into the service in a given year; but they do not tell us, that in the opinion of the medical officers who inspected these boys and men, they were likely to make efficient soldiers. The last statis-

tical return we need notice is that for vaccination. It gives the rates of attacks of small-pox to strength during the year. These were among men ·35 per 1,000, among women 1·05, and among children ·45 per 1,000. The high proportion among women is fairly attributed to the want of power to enforce re-vaccination in the married quarters.

THE INTERNATIONAL MEDICAL CONGRESS.

MEETINGS OF THE SECTIONS.

IX. Section of Dermatology and Syphilis.

The Ætiology of Lupus.

On Monday, August 11th, Professor Doutrelepont, of Bonn, opened the discussion on this subject, by reading a paper in which he stated his belief that lupus is really a tuberculosis of the skin. Not only are the histological characters of the lupus nodules and the miliary tubercle very similar, but the specific bacillus of tuberculosis is found in both. The clinical course of the two diseases also presents, as he thought, some very marked points of resemblance, the slow course, for example, of some forms of phthisis, accompanied with many relapses. But the most important and most direct proof has been found in the inoculation of small pieces of lupus tissue into the cornea of rabbits, and the growth of distinct tubercle at the point of inoculation.

Dr. Leloir, of Paris, also read a paper dealing with the same points, and quoted a case of undoubted lupus of the bones, in which the disease resembled tuberculosis. He, too had inoculated animals with lupus and thereby produced tuberculosis.

Professor Kaposi, of Vienna, said that before the time of bacteria it used to be remarked how unusually free from tuberculosis lupus patients were. (He had seen 1,200 cases of lupus in 20 years, and never seen any connection between the two diseases, although some patients had been covered with the lupus for many years.) Now, however, lupus, which was a perfectly clear and distinct clinical entity, had been confused with tuberculosis. Real tuberculosis of the skin, of which he had seen 15 cases, was an entirely different disease, in which the actual miliary tubercles were seen plainly in the most superficial layers of the skin, and which was always rapidly fatal.

Professor Pick, of Prague, had long since been led to suspect a close relationship between lupus and tuberculosis, but could not establish a satisfactory clinical identity. The discovery of giant cells at first promised to establish their connection, but the theory of their specificity was afterwards disproved. The discovery of the bacillus tuberculosis had had a more satisfactory result. Morrison had found that the bacillus was always present in abundance in certain stages of the disease, and that this was the case even where no tuberculous condition of other organs was present. Observers are, however, divided as to whether the bacillus is causal. Professor Pick considers that it is, and thinks that tuberculosis of the skin may exist as lupus vulgaris, as tuberculosis cutis of Kaposi, or in possibly many not yet discovered forms which may differ exceedingly, just as syphilides and gummata differ exceedingly, and which it may take a long time to distinguish and classify, as was the case with lupus, and the serpiginous eruptions of syphilis. Although tuberculosis cutis is not lupus, lupus might still be and probably is a tuberculosis.

Professor Neisser, of Breslau, vigorously opposed Kaposi, the value of whose statistics he disputed, since the cases had not been examined with a view to settling this question. There was a slow and a galloping syphilis, and there might be similar conditions in tuberculosis of the skin. He considered that the slow course and frequent recurrences in lupus were very like the course and relapses of tuberculosis, and this latter too, like lupus, might last for years. Kaposi seemed to simply disbelieve in the bacillus tuberculosis, but with the present weight of scientific evidence on its side, Kaposi certainly would have to undertake the proof that lupus was *not* a tuberculosis in order to support his position.

Dr. Unna, of Hamburg, agreed with Doutrelepont, and thinks with Pick that there are a series of bacillar diseases of the skin, all containing the bacillus tuberculosis. He knows of four such affections at the present time, viz., lupus vulgaris, tuberculosis cutis Kaposi, lupus papillaris Aubert, and scrofulous eczema, followed by caseous glands. He finds the bacilli are obtainable in quantity by partially digesting hardened specimens and examining the precipitate of what has fallen.

Professor Edward Lang, of Innsbruck, said that the murderous disease described by Kaposi, did not correspond to ordinary mild often curable cases of tuberculosis. There was probably some form of skin tuberculosis which did so correspond, just as there were cases of carcinoma which were rapidly fatal, and cases which dragged on for decades.

The Specific Sensibility of the Skin.

Dr. Goldscheider gave an interesting address on the specific sensibility of the skin. He strongly supported Helmholtz's theory that every nerve, however excited, gave rise to only one specific perception in the cerebral ganglion cell with which it was connected. His investigations had shown him that there were only certain points which were capable of feeling heat, while a completely different and complementary set perceived only cold. It was immaterial how these points were excited, whether mechanically, or by temperature change, or electrically, the effect was the same. This fact of course refuted the old theory of perception of heat and cold by simple increase or decrease of the amount of heat in the nerve. These temperature nerves, when excited, give rise to no pain, nor do they possess any sensibility. Only certain "pressure points" possess acute specific sensibility, and outside these there exists a diffuse indefinite perception. The points at which pain is appreciated are also quite distinct and very sensitive to various irritations. These pressure and pain points are always complementary to the points at which heat and cold are perceived. The touch nerves, like them, are always arranged in areolæ, and hence the necessity of passing the finger over any bodies which we are feeling until an areola is met with capable of appreciating the shape and surface of the particular body. All these functions improve notably with education, as seen especially in the case of blind people. But there are many areas normally destitute of all appreciation of one or more of these different modes of sensibility.

The Ætiology and Pathology of Lepra.

On Tuesday, August 12th, Dr. Armauer Hansen, of Bergen, spoke at length on the ætiology and pathology of lepra. He exhibited patients to show the difference between the tubercular form and the macular. The former was almost always fatal in nine or ten years, the latter was often cured. The anæsthesia and atrophy which follow are effects of the healing process not of the leprosy, and necrosis of the affected parts is always secondary to injury. The paralyses too are local. There are never any traces of spinal lesions to be found clinically or microscopically. He insisted that lepra was not an hereditary but a specific contagious disease; the recurring crops of nodules showed its auto-inoculability; and since the growths tend to heal it must be specific. There is, moreover, no anatomical correlation between the parts affected, as in the metastasis of neoplasms. The cause of the disease had long been obscure. Years ago he had noticed peculiar brown cells which were always present in microscopic sections of lepra. In 1871 he described minute moving rods in the contents of a breaking down tubercle, and immediately after Koch's discovery he found the bacillus lepra by applying the same methods. He has never found them in anæsthetic patches, but Ahning has found them in anæsthetic nerves. The speaker and Professor Neisser have both cultivated them. Inoculations on rabbits and cats (Hansen), and on fish (Köbner and Hansen), had been unsuccessful, but Neisser had produced

a new growth by inoculating a dog. No animal has, however, been lepraized as yet. He does not believe in the heredity of a contagious disease; a disease may be congenital without being hereditary, for example small-pox. Heredity and the transmission of such a disease as syphilis, are entirely different matters; the latter may develop late, is incapable of atavism, &c. Relationship even, with leprous people, is by no means always present. The inhabitants of a valley become in time all more or less related, and the members of one family naturally come into closer contact with each other than with outsiders, hence the apparent frequency of the spread among relations. Isolation is necessary, for although the disease is spontaneously curable, we cannot cure it; but the effect of isolating the cases in Norway has been effective in reducing the number of lepers by nearly one half in 20 years.

Professor NEISSER agreed in Hansen's views as to contagiousness and heredity in lepra. The spores which Dr. Hansen had spoken of were probably vacuoles.

Abortive Treatment of Syphilis.

Professor PICK, of Prague, read a paper on excision of the primary sore in syphilis. He confined his remarks to *hard* chancres, and distinguished carefully between those cases in which the glands were indurated, and those in which they were not. Where the glands are affected they must also be excised; but in such cases, almost without exception, whether excision is practised or not, general symptoms make their appearance. The conditions under which the operation may be performed are only partially known. Simple excision of the chancre where the glands are affected will never give success, and no excision avails when the deep glands are swollen. Pick considers the effect is but slight, mostly only a delay in the appearance of the general symptoms. The operation has, however, served to show that the indurated sclerosis is not the expression of general syphilis. The lymphatics have been recently found to be much enlarged in these cases, and Pick believes that the syphilitic poison passes into the organism through these, and not, as Auspitz believes, entirely through the blood.

Dr. UNNA, of Hamburg, believed that syphilis extended not by any one path, but by the blood vessels and lymph vessels, as well as by simple contiguity of tissue.

Professor NEISSER, of Breslau, observed that although it was not yet certain by what path the syphilitic virus entered the system; still, since it was a bacterial virus, there was no theoretical reason why it should not be prevented from entering by a timely destruction of the bacteria.

Professor BERGH, of Copenhagen, gave accurate statistics extending over some years, and showing the comparative worthlessness of the operation as a protective measure.

Drs. LELOIR and BARTHÉLEMY, of Paris, quoted most favourable cases in which excision a few hours after the first appearance of the chancre failed to prevent infection, and the latter stated that French opinion was now decidedly opposed to the procedure.

Dr. MARTINEAU, of Paris, in opposition to the German speakers, regarded the chancre as a manifestation of general infection, and considered it therefore to be manifestly useless to excise it.

The Treatment of Syphilis by Mercurial Injections.

Professor LIEBREICH, of Berlin, found that certain conditions were requisite in any mercurial compound which was to be spontaneously injected, viz., it must not precipitate albumen, must be indifferent to the connective tissue of the skin, must not be decomposed by an alkaline solution, must be easily broken up, so that with sulphur, sulphide of mercury is precipitated. Sublimate forms insoluble compounds with albumen, and is only absorbed when these are broken up. Tannates and citrates of mercury also unite with albumen, and reach the blood in complicated combinations. A body which fulfils all these conditions is found in the formamide of mercury, which is easily prepared by precipitating the oxide by carbonate of ammonia, and dissolving it in formamide. Amides of a number of other fatty acids also work well. If injected in quantity they form sloughs in the bowels during elimination, as does the sublimate, showing that they can work efficiently, the mercury in the compound being simply masked by the amide. They cause neither pain nor irritation of the tissues, and the dose is somewhat less than that of sublimate. It is, above all, important that the course of injections must be several times repeated: it is impossible to be sure of curing by one course alone. In the midst of the injections the case sometimes ceases to improve; the original vigour, however, can be rapidly restored by giving a good diet, with plenty of chloride of sodium, the salt and chloride of ammonium both assisting powerfully as "help cures."

Dr. MARTINEAU, of Paris, had used injections exclusively in the treatment of syphilis for the last few years, and believed that it was the only reliable method assuring a cure and causing no stomatitis or other alimentary troubles. In no case was the disease itself cured, merely the manifestations; and in doing this, mercury injected subcutaneously occupied less than half the time required by the other methods.

There was a general consensus of opinion among the after speakers that the injection of mercurials was a valuable method of treating syphilis, but by no means the only one. No one method suited all cases.

Dr. NEISSER thought that the injections should be smaller and more frequent, and considered that the formamides were eliminated too quickly.

Dr. DOUTRELEPONT, of Bonn, said he did not believe formamide to be absolutely the best form for injection. All salts, when injected in a sufficient therapeutic dose, might cause stomatitis.

Dr. SHOEMAKER, of Philadelphia, after prolonged experiments on the various methods of injecting mercury, had come back to the simple solution of sublimate in water, as the most effectual and least irritating.

Dr. WULFF, of Strasburg, had made and injected the formamides five years ago. He always used them perfectly freshly made from triturated solutions; they then worked quickly and well.

Dr. UNNA advocated the use of keratinised mercurial pills, which dissolve in the alkaline juices of the small intestine, leaving the stomach untouched; in this way the irritation caused by injection may be avoided.

Dr. BARTHÉLEMY, of Paris, always used the peptones for injection, and found that they acted quickly, but believed that pills were by far the best and simplest method for a continued treatment.

Professor KAPOSI found injections useful, but considered that inunction was by far the quickest and most vigorous method of cure.

Most of the speakers considered that although statistics were a valuable help in deciding the relative merits of the different methods of cure, especially the statistics of venereal hospitals for prostitutes, yet the judgment of the relative merits of different methods depended mostly on the good clinical observation of the individual experimenter.

Inoculation of Syphilis in Animals.

Dr. MARTINEAU had successfully inoculated a monkey with syphilis, and produced a distinct chancre, erosive and ulcerative syphilides of the skin and pharynx, and hypertrophic papular syphilides of the scrotum and thigh.

Dr. PICK had seen the monkey which Professor Klebs claimed to have syphilised. He was only acquainted with syphilis in the human subject, but the eruption which broke out on the monkey looked to him more like a varicella accidentally inoculated than like any syphilitic eruption in man.

REVIEWS AND NOTICES OF BOOKS.

A Defence of Harvey; by GEORGE JOHNSON, M.D., F.R.S. London: Smith, Elder and Co., 1884.—This little book is the outcome of Dr. Johnson's Harveian oration, delivered in 1882, being a continuation of the vindication of Harvey's memory against charges of plagiarism and scientific dishonesty. It may be remembered that certain Italian writers affirmed that, without making any acknow-

ledgment, Harvey had derived his inspiration, if not his facts, from the writings of Cesalpino. To those who heard Dr. Johnson's oration the matter might have appeared finally disposed of, any further defence seeming somewhat like fighting the battle twice over and slaying the slain. From the brochure before us, however, we learn that Professor Scalzi had undertaken to reply to the oration of 1882. His lack of faith in the efficacy of his arguments, and the validity of the claims he attempts to raise for the memory of Cesalpino may be inferred from the fact that his reply, although delivered in Rome and greeted with applause, was never by its author forwarded to England. Professor Scalzi's arguments are that Cesalpino was the first to use the word circulation, that he described the passage of the blood into *capillamenta*, a word which is now translated *capillaries*, and that he is credited with the true explanation of a vein swelling on the distal side of a ligature placed on a limb. Dr. Johnson submits these assertions to scathing criticism and shows conclusively that the context of the passage in Cesalpino is sufficient to disprove the suggested translation of *capillamenta*, and further that the term itself is derived from Aristotle who believed in the filamentous ending of arteries in nerves. After numerous quotations from Cesalpino's works, Dr. Johnson remarks that "it is evident that neither Harvey nor any one else either did, or could, ascertain the course of the blood from a study of his inconsistent and unintelligible physiological writings." The defence will be welcome to all who revere Harvey's memory, it is marked throughout by sound logic and great research, and its occasional asperity of tone may well be forgiven, if not applauded, when we remember that Professor Scalzi had not the courtesy to forward his reply to the "chiarissimo Professor Johnson," although attempting to make capital out of Harvey's silence with regard to Cesalpino.

West African Hygiene; by Charles Scovell Grant, M.D., Univ. Dublin, &c. London: Edward Stanford, 1884. Sm. oct., pp. 61.—This little pamphlet is intended more especially for the use of Europeans, not members of the medical profession, who are called upon to reside on the West Coast of Africa. The title of Tropical Hygiene would, with a few additions to the subject matter, be an even more applicable one, for the directions for the preservation of health in Africa are equally suited to the resident in Panama or British India, and the more severe diseases of that portion of the globe of which Dr. Grant treats are unfortunately to be found in nearly every part of the tropical world. Dr. Grant's remarks on prophylaxis are as good as they well can be. We notice that he lays special stress upon the danger of over-eating. To many this would seem unnecessary, yet it is the error to which almost everyone resident for the first time in the tropics is prone, and the one which it is almost the most important of all to guard against. We cannot, however, agree with Dr. Grant's recommendation of German beer. There seems to be a growing idea among Europeans on tropical stations that it may be drunk freely with impunity. Men who would look with horror upon Bass or Allsopp, will nevertheless drink four or five bottles of "lager" daily, "because it is so light." Yet we venture to think that, although it has a lower percentage of alcohol than the former, few beverages are more ill-suited to those who are in any way predisposed to liver derangement. The Papaw (*Carica papaya*) is highly recommended both as a fruit and a digestive, a recommendation in which we cordially agree. It is curious how little it is used in many parts of the tropics. In the West Indies alone it seems to be properly appreciated. In the Straits Settlements and India it appears but rarely at table, while in Java and the Malay Islands there is an idea among the Dutch that it is absolutely harmful. We have eaten it in many parts of the world, and regard it as one of the pleasantest and most wholesome of all tropical fruits. Dr. Grant's advice is tersely and clearly put. Bearing in mind the apparently unaccountable variations of the temperature of the body in hot climates it is perhaps a little too much to say that a rise to "99° Fahr. indicates impending mischief," but on the whole, the hints conveyed in this little pamphlet may be safely followed by any intending resident in the tropics.

ABSTRACTS AND EXTRACTS.

NEUROLOGY.

Paralysis Agitans. — Professor Charcot observed (*Gazette des Hôpitaux*, June 3rd), that for his lecture at the Salpetrière he should profit by the presence in his wards of several cases of an affection remarkable for its tenacity and for its progressively fatal termination, whatever may be done for it. It belongs to the category of diseases known as neuroses, in which at the autopsy after death no lesion of the nervous centres can be detected; and it is an implacable affection *par excellence* which is never cured, nor even ameliorated. Parkinson's disease, so called from him who so well described it in 1815, consists of two fundamental elements—a peculiar form of muscular rigidity and a trembling—which constitute its entire symptomatology. Sometimes one of these predominates, the other being merely accessory; and this is another reason for preferring the name Parkinson's disease, for in a certain number of these cases the trembling is a mere nothing. Moreover, patients do not in general like to be called paralytic; and in fact there is here no paralysis properly so called, for the dynamometric power is generally not diminished. Parkinson's disease may present itself in three different forms:—(1) When the rigidity and the trembling exist in an equal degree; (2) when the trembling alone characterises the disease; (3) when the rigidity predominates, the trembling either not existing at all or in a very slight degree. The rigidity is quite peculiar, being distinct from spasmodic contraction, and produced according to certain rules or laws. It invades all the muscular system, progressively and symmetrically—predominating sometimes on one side to a certain degree, "Seated, this patient has the absolute immobility of a statue, with the exception of a slight tremor in the left hand. The head is a little inclined forwards, and the muscles of the neck are so immobilised that she always looks straight forward, although by a prolonged effort of the will she can turn her head a little. The features are motionless, the physiognomy expressing a certain amount of hebetude, although the woman possesses all her intelligence. The look is fixed, the eyelids rarely descending. Deglutition being somewhat slow, while the salivary secretion continues normal, the saliva not unfrequently flows from the mouth. The upper limbs exhibit a rigidity analogous to that of muscles in a state of semi-flexion of the joints; but movements are possible within certain limits, as the articulations are quite free. The hands present a peculiar deformity owing to the predominance of the rigidity in the flexors—so that the fingers are semi-flexed on the metacarpus, as in holding a pen. Although the rigidity exists likewise in the lower limbs, the patient can walk after a fashion. Sometimes it is sufficiently great to simulate that observed in spasmodic paraplegia; but the two affections may be easily distinguished from each other, if it were only by the fact that in the latter reflex tendons are exaggerated, while in Parkinson's disease they remain normal. Moreover, while the rigidity in spasmodic paraplegia is a spinal phenomenon, that of this disease recognises no nervous lesion. Perhaps, if M. Pierret's researches are to be relied on, there may exist a sclerous lesion of the muscles —a lesion which he regards as of a rheumatic origin. When standing erect, she exhibits quite a special attitude, having the head somewhat bent forwards, the trunk inclined upon the pelvis more or less, according as the disease is more or less advanced, with all the limbs in a state of semi-flexion, and the hands applied to the thorax or abdomen — the patient then presenting a truly wooden rigidity. When she is made to walk, her feet are raised slowly and heavily from the ground, and walking, very slow at first, becomes gradually accelerated, with a tendency to propulsion, or what has been termed festination. Turning round is accomplished with great difficulty, and only by making a long circuit. In fact, these patients resemble mere automatons which we are obliged to arrest in their walk, under pain of seeing them come into contact with the first obstacle they meet with. An equally curious

phenomenon is that of retropulsion, which may be easily produced by drawing the patient slightly backwards by her dress or shawl, when she will be set walking backwards with a quickness which is rapidly accelerated, and would end in a fall if she were not arrested. In this patient the trembling is very slight, and scarcely exists anywhere, except in the left hand. It consists generally in this disease in small, rapid and short oscillations confined usually to the extremities, and only rarely manifesting themselves in the trunk or head, and then only by propagation. In the hand, it is only the fingers that suffer from the agitation, all of them beuding at the same time, and then recovering themselves, the thumb alone acting independently. It is the same with the toes, so that there is a rhythmic trembling of all the extremities, with short and rapid oscillations, which only ceases while the patient is asleep. A certain number of such patients can, by an effort of the will, arrest the trembling when they wish to execute some motion. The trembling varies in different diseases, for example, in sclerosis the oscillations become more and more considerable until the patient is unable to carry anything to the mouth; in chorea the oscillations become actual gesticulations; in post-hemiplegic hemichorea they are replaced by disordered movements; in athetosis, which is only a variety of hemichorea, the fingers in their trembling agitation resemble the tentacula of an octopus. In Parkinson's disease, sensibility is but little marked, sharp pains being rare. Its subjects complain rather of uneasiness and constant cramp, feeling a desire of incessant change of positiou, and suffering much from excessive heat. They are always too hot, even when their central temperature remains normal. The disease affects both sexes, with a slight predominance in men, and generally appears at from 40 to 60 years of age, although M. Siridey has met with a case in a girl 17 years of age. The most frequent cause is sudden fear, the action of which is in all probability favoured by some predisposition, such as arthritism or nervous heredity. To conclude, the disease is related to the large neuropathic family by the heredity of transformation, and sometimes also by a heredity of similitude. But the general rule is, that the psychical functions remain intact. Thus, I see every year in this hospital from 30 to 40 cases of paralysis agitans, and yet have never met with any psychical disturbances, and it has beeu the same in private practice, so that I regard any such cases that have been noted as mere exceptions. The course of the disease is fatally progressive, the head bending more and more on the chest, and the trunk ou the pelvis."

Pseudo-Hypertrophic Paralysis.—Dr. G. S. Middleton, having had the somewhat rare chance of examining the muscular and nervous systems after death in two cases of pseudo-hypertrophic paralysis, has recorded the results of his investigations in the *Glasgow Medical Journal* for August. He was unable to find any departure from the normal either in the nerve centres, or in the nerve trunks or peripheral nerves. In the muscles he noted a great irregularity in the size of the fibres in different places. The most prominent feature was infiltration with fat, the fat cells being large and enclosed in tubes of connective tissue arranged in rows parallel to the muscular fibres. There was a very marked increase of connective tissue, most marked where the fat was least abundant, the fibres being mostly parallel to the muscular fibres; the nuclei were numerous and many of them were large; the walls of the vessels too were decidedly thickened. In the muscles least invaded by fat the condition variously called hyaline degeneration, and coagulation necrosis was well seen. The fibre so affected presents, by transmitted light, a vitreous-like appearance, and breaks with a vitreous-like fracture; the fibre has a granular aspect. It was noted that this change was found mostly in muscles showing very little other sign of disease, aud Dr. Middleton not unnaturally asks whether this can be the earliest stage, preceding the other changes. Bone lesions have so rarely been described in connection with pseudo-hypertrophic paralysis, that it seems worth while to note that at a recent meeting of the Philadelphia Neurological Society, a report was read of the case of a girl of seventeen, who had suffered from this disease from childhood, and who presented a curious affection of the elbow joint. Owing apparently to atrophy of the epiphyses, there was much greater movement in the joint possible than in an ordinary healthy person, and the attachments of the head of the radius and upper end of the ulna were loosened. The spine showed a slight degree of scoliosis. Dr. J. Hendrie Lloyd, who reported the case, thinks that it may be an expression of that faulty development which overtakes in some defective births all tissues.

Irregularity of the Pupil in the Insane.—Dr. Mosso, of the Turin Manicomia, describes the results of the examination he has made of the pupils in 300 insane and 100 sane persons. Since Baillarger called attention iu 1851 to the frequency and diagnostic value of inequality of the pupils in general paralysis of the insane, other observers have shown that the same circumstance is observable in many other affections of the uervous centres; but in the present paper Dr. Mosso wishes to draw attention to the frequency of irregular shape of the pupil in insanity, and its occasional occurrence in the sane. Of the 300 insane, the pupil was found rotund or sub-rotund in 60 per cent., oval in seven per cent., irregular in 25 per cent., and very irregular in three per cent. In the 100 sane persons, it was found to be irregular in nine. The general conclusions drawn are: (1) That in the insane pupillary irregularity is of frequent occurrence, and is usually bilateral. (2) In diseases of the nervous centres, irregularity and inequality of the pupils have the same pathological significance, irregularity being in fact the first stage of inequality. Dr. Mosso only puts forward these observations tentatively, and asks for their corroboration by other inquirers.—*Lo Sperimentale*, December.

DERMATOLOGY AND SYPHILIS.

Chancre of the Tonsil.—According to Dr. Taylor, (*New York Medical Journal*, May 24th, 1884), this lesion, although not common, is much less rare than was once supposed. He uarrates four cases which have come under his own observation, all of which originated in depraved habits, and quotes one of like nature recorded by Dr. Bumstead. Dr. E. Wigglesworth gives the case of an enthusiastic medical student who became thus infected by attempting the mouth-to-mouth inflation of the lungs of a still-born child. Schirajew reports two cases, iu one of which a mother was infected on the left tonsil from her infant, who had been infected by its nurse. Spilmann gives the case of a woman in whom the lesion was traced to contact with the nursing bottle of a syphilitic child. Hulot gives four cases, of which three were due to kissing a syphilitic child or relative. C. Boeck details four cases of tonsillar syphilis, two of which were traced to the use of eating and driuking vessels, and the third to a kiss. The diagnosis must be made from mucous patches and syphilitic ulcerated sclerosed tonsils, in neither of which conditions is the lesion so sharply confined to one side, nor accompanied by such well-marked adenopathy; further, the history of the case will often establish the late origin of such lesions. The main diagnostic points are—(1) The details of the mode of infection, either from syphilitic sores, primary or secondary, chiefly about the mouth or face, and mostly by kissing; from infection by some article, such as feeding bottle, cigar, pipe, cup or the like; or from indulgence in bestial practices. (2) The slow unilateral development of the chancre with well-marked and extreme enlargement of the corresponding glands. (3) The limitation of the lesion to the affected side. (4) The difficulty in deglutition and even pain, which is referred to one side. (5) The history of the evolution of syphilis; the absence of chancre from other parts, especially the genitals; and the much less indurated condition of the ganglia seated elsewhere, those at a distance being often not affected until near the date of the evolution of secondary manifestations.

Syphilisation.—We had thought that the wonders which were at one time expected to be wrought by syphilisation had been consigned to the limbo of exploded fallacies, but it seems that the veteran syphilographer, M. Paul Diday, of Lyons, still has his expectations, since we

find him laying down (*Lyon Médical*, July 6) the following propositions: "If, in spite of numerous experiments, the existence of syphilis in the ape still remains but a doubtful fact, that is, because in him the disease only prevails with a weak intensity. Being capable only of an attenuated syphilis, is not this animal predestined to be the cause of the attenuation of human syphilis? This vaccination against syphilis, possibly, thanks to him, will be applicable in my opinion, first, preventively to prostitutes, to certain nurses, and to certain individuals, who, shortly after coitus, have discovered or learnt that their companion was the subject of contagious syphilitic lesions; secondly, semi-preventively, at the commencement of a chancre, and that with or without its auxiliary excision." (Our respected ancestor is thus at some remote period also to become our benefactor.)

The Diagnosis and Treatment of Syphilis.—Dr. Detmold, as reported in the *Boston Medical and Surgical Journal*, February 28th, after pointing out that syphilis manifests a decided preference for the bodies of such bones as are not covered with large masses of muscular or fibrous tissue, states that, above all others, the favourite seat of osteal secondary syphilis is the anterior surface of the tibia. A chronic local periostitis is set up, and as an invariable result of this, there is œdema over the bone. The peculiar feature of this œdema is its permanency, for it continues throughout the rest of the patient's life, and constitutes an ineffaceable and certain sign of syphilis. It is true, of course, that œdema over the tibia may be the result of injury or of other causes: "but when this œdema is found in both legs, and no local cause can be assigned for it, there can be no reasonable doubt that the patient has had syphilis." The treatment which, in Dr. Detmold's hands, had yielded the most satisfactory results, consists in the external use of a lotion of corrosive sublimate. The patient is made to rub one grain of mercury bichloride, dissolved in half-an-ounce of water, upon his body every night and morning, applying it to each of the extremities in turn. No salivation, and no inconvenient local effects upon the skin, had ever been produced; but after its long continuance in some cases, griping stomach-pains had been complained of.

Treatment of Syphilitic Condylomata.—Salicylic acid and boracic acid are both very good remedies. Formerly, we often used to remove the larger warts of that kind with the scissors, and then cauterised the wound; but since we have employed the following powder, which is dusted three times a day over the new growths, we have never had occasion to have recourse to any other remedy: ℞. Hydrarg. Muriat. mit. gr. xxx, Acid Boracic., gr. xv, Acid Salicyl. gr. v. M. Under the use of this powder the condylomata almost visibly dwindle away.—*Philadelphia Medical Reporter*, June 14.

Sweating Feet.—A much simpler means of treating this affection than that recommended by Hebra, consists (*Betz, Memorabilien*, 1884, No. 3) in bathing and thoroughly washing the feet in a solution of two to five per cent of carbolic acid, repeating this at first daily and afterwards two or three times a week. Well-washed stockings are then to be put on which have been dusted with a powder composed of salicylic acid, three parts; benzoic acid, two parts; and talc powder, ninety-five parts. The interior of the shoes must also be thoroughly dusted with this powder. The stockings when removed must be placed for twelve hours in carbolic acid water, and then thoroughly washed. In this way the bacteria which cause this fetid secretion may be destroyed, and without such a disinfection a cure is not possible. Dr. Duhring observes in the *Philadelphia Medical Times*, June 14th, that this affection, in which nothing can be seen except a macerated state of the skin, is tolerably common, and consists in a functional disturbance of the sweat apparatus. A saturated solution of boracic acid often exerts a beneficial influence, also tannic acid in solution or powder and salicylic acid. The following powder may also be used—Zinci oleati ʒii, talci amyli aa ʒiii. Tincture of Belladonna in a lotion may also be applied with good results in some cases.

Dermatitis Herpetiformis.—Under this title Dr. Duhring read a paper at the meeting of the American Medical Association (*Medical Record*, May 10), upon a disease of the skin, of which he had only met with fifteen cases. It shows itself in a variety of ways—by patches of an urticarial or erythematous character, by herpetic vesicles, by blebs, by pustules, and by papules. All these lesions tend to take on a herpetic type, and they may all be present at one time, or appear in succession. The disease is remarkable for the multiformity of these lesions; and the different eruptions are accompanied with violent itching and burnings. The treatment of the disease, which may be regarded as a neurotic affection, is very unsatisfactory; and it may continue for years. It may occur in both sexes, and in women independently of pregnancy. The pustular variety of the disease is the same as that described by Hebra, under the name, impetigo herpetiformis.

Lupus Hypertrophicus of the Nose.—In dealing with a case of lupus of the nose, Professor Billroth observed that it belonged properly to the dermatological clinic, but that he had retained it in his own in order to show how this form of lupus is now treated. The patient having been put under chloroform, the diseased substance is scraped away by the sharp spoon, after which caustic potash is applied right down to the healthy tissue. In this way the patient at once gets rid of his malady without any pain, and the danger of relapse is as far as possible guarded against.—*Allgemeine Wiener Medicinische Zeitung*, June 3.

Faradization in Ringworm.—An obstinate case of ringworm on the forearm having resisted all known remedies, the Faradic current was applied as an experiment, the positive pole being applied to the elbow and the flat negative electrode passed repeatedly over the seat of the disease. The itching, which was intense, ceased immediately, and a clear exudation like minute drops of sweat appeared on the surface. A second application, made two days afterwards, left nothing of the ringworm except desquamated skin. A mild emollient ointment was used between the applications of the battery.—*New York Medical Journal*, March 1st, 1884.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE XIV.

The Biological Laboratory.

No department of the Exhibition is perhaps less visited or more important than the Biological Laboratory, under the charge of Mr. Watson Cheyne, and his assistant, Mr. Joseph Lister. An exhibition, such as the present one, with the high patronage it has enjoyed, and its unequalled success, both as regards the numbers of visitors, and the general interest evinced by them in matters of health, alone can afford the desired scope for the proper display of a subject of this magnitude. Obviously no greater incentive to safeguard health can be imagined than a study of the life history of the organisms, whose entrance into, and development within the body constitutes *disease*, and of the power of chemical agents in destroying them. Nor can any objects be conceived more likely to convey a powerful lesson or more! surely point a moral, than the ocular demonstration of the germs which work such disaster amongst us. Hitherto the germ theory of disease has rested on too slight and unsubstantial a base even for the medical profession. There have not been means of demonstrating germs; of differentiating them; of isolating one variety from another. There has been a lack of evidence as to the specificity of the organisms, several different kinds being present in one disease or organ, so that investigators have found it difficult to separate cause and effect. Further, the knowledge of the existence and life history of germs will never be of much service to humanity so long as it is confined to the medical profession only. Hence the importance of the present laboratory in connection with the International Exhibition at South Kensington, serving as it does to bring before vast numbers of the public the germs themselves, and expose in tangible reality the existence, specificity and characteristics of each.

The study of the laboratory will teach before all things the value and importance of absolute cleanliness, for without cleanliness the results now obtained would have been impossible; indeed no small part of the progress recently made in this branch of study has depended on advances in the methods of securing absolute cleanliness, both of the instruments and media, before the cultivation experiments have been commenced. Now, however, it is possible to isolate one bacterium from another, and study its peculiarities with ease and certainty. Sterilisation—as this process of purification is called—is effected by heat. The vessels to be used in any experiment are previously heated to a temperature of 150° C. (302° F) for three hours; the cultivating media are steamed for half-an-hour on three successive days, one such steaming being found to be insufficient as a protective. It is thought that bacteria exist in two forms:—first as *active agents*, which are readily killed by a heat of 212°, and second as *passive agents* (spores) which can resist heat for any length of time. The first steaming destroys all the active agents, leaving only spores; the latter develop into active agents between the first and second steaming, and are destroyed by the second steaming; the third time makes doubly sure, by destroying any others which may have escaped destruction on the two previous occasions. When it is desired to cultivate a particular form of bacterium, a little bacteria-containing fluid is mixed with some cultivating medium and then spread very thinly on a piece of glass plate and covered with a suitable cover. In process of time, the bacteria begin to grow; if there are several varieties (as is usual), each form developes in its own peculiar manner and is easily recognised; a portion of that which it is desired to cultivate is then transferred from the glass plate into a test tube or other suitable vessel, and treated *secundum artem*. On the glass plate, on which the original fluid to be tested was grown, there will generally be found more than one variety; sometimes several varieties will be found; but being widely spread out, the varieties are separated, and in the second or third cultivation one particular variety can generally be obtained for experimental purposes, quite pure and unmixed.

It is in this method of cultivation that the *specific* characteristics of certain bacteria, and by inference, therefore, of the whole group, have been demonstrated. Thus some bacteria produce colour—blue, green, violet, or fluorescence; and they can easily be separated and made to *breed absolutely true*. The bacteria of milk fermentation can be isolated, and either that leading to the production of lactic, or that of butyric acid can be cultivated as may be desired. Coming to more pathogenic forms, we find exhibited the specific bacilli which produce tuberculosis, anthrax, typhoid fever, osteomyelitis, pneumonia, and erysipelas. Of these, the tubercular, anthrax and the erysipelas bacilli need only be inoculated in order to produce their respective effects. The typhoid bacillus has not yet been successfully inoculated, probably because typhoid fever is a disease peculiar to the human species; but, as found in typhoid stools, and in typhoid ulcers, it can be cultivated artificially, and it is found to possess characters by which it can readily be recognised and differentiated from other forms. The bacillus of osteomyelitis must be injected in some quantity; and in order that the characteristic lesions follow, one of the bones of the animal experimented upon must have been injured, that is either bruised or broken. To produce pneumonia artificially the animals are made to inhale a spray containing the bacillus, or it has to be injected into the pleural cavity. Some cultivation experiments have also been made with the bacillus of anthrax; it may be so attenuated as not to kill when inoculated into an animal, but whether the animal is thereafter protected from the natural disease, does not appear.

In order to carry on these cultivations, various media are used, simple meat infusion, gelatinised meat infusion, skimmed milk, bread and potato infusions. These are, of course, all sterilised before being used and neutralised. Some germs are found to grow better in one infusion than another, some require a rather higher temperature than others, some grow best on the surface of the cultivating medium, while others thrive only when completely buried in it. In all this there is nothing but a confirmation of the generally accepted doctrine of constitutional receptivity, some persons appearing to be but little affected by a disease, or epidemic which is fatal to others; in other words, germs grow more readily in one constitution than another.

The importance of the subject can hardly be overstated. It is rather humiliating to English scientists that the best work in this field has been done in Germany, thanks to the apathy of the home Government in matters scientific on the one hand, and to agitation and to ill-judged restrictive legislation on the other. Even as regards cholera, a disease which affects English colonial interests so largely, the greatest advance that has ever been made in its pathology, has been made by a German Commission, specially sent out by the German Government to study the disease. At last, and only when the discovery of the materies morbi seems really to have been accomplished, does our own Government wake up to its responsibilities and take steps to study the disease. It is perhaps not an entirely unmixed advantage that the gentlemen selected for the task have already expressed adverse views on Koch's great discovery. If they are converted to Koch's doctrine, it will be greatly in its favour. If they are not converted, we fear there will be a feeling that its study was approached with bias and foregone conclusions. Meanwhile, however, let us not make too much of the germ theory of disease or imagine it final; for while of great interest to have discovered the materies morbi of a disease, the knowledge will avail little unless it can be made subservient in saving life. Let us at least hope that steps will be taken to make the laboratory a permanent institution, and that opportunity will be given to English medical men (not inferior to that enjoyed by foreigners) to make themselves familiar with these uncanny and unwelcome little parasites.

GENERAL CORRESPONDENCE.

HOWARD'S AMBULANCE CARRIAGE.

[To the Editor of the Medical Times.]

SIR,—Since arriving in London last week it has come to my knowledge that various carriage builders are respectively advertising themselves as "Patentees," "Sole Manufacturers," as "Manufacturers to the London Ambulance Service," &c., &c., of Dr. Benjamin Howard's Ambulance Carriage.

As this ambulance, with or without modification, is used exclusively by the London Ambulance Service, largely by the Metropolitan Asylums Board, and increasingly throughout the United Kingdom, I think it important the profession should know that, in consequence of special provision made by me when I presented this ambulance to the London Ambulance Service and the British public, no part of this carriage is, or can be now, patented by anybody, and that all representations which have been made of monopoly of any kind in connection with its manufacture are untrue and fraudulent.

I am, Sir, yours &c.,
BENJAMIN HOWARD.

London, August 25th, 1884.

SPINAL CURVATURE.

[To the Editor of the Medical Times.]

SIR,—Will you permit me to state that the quotation upon which Mr. Churchill has based his remarks, published in your issue of Saturday last, is not taken from my paper read at the Congress upon School Hygiene at the International Health Exhibition, and does not correctly express what I have said or written regarding the origin of deformities. As to the causes of defective eyesight I have never offered—nor do I consider myself competent to offer—any opinion.

I am, Sir, yours &c.,
NOBLE SMITH.

24, *Queen Anne Street, W. August 27th*, 1884.

VACCINATION STATISTICS.

In connection with the articles and correspondence which have recently appeared in this Journal, Dr. Collie has favoured us with the following table of statistics which has not hitherto been published. It shows the relation of vaccination to age and mortality in 915 cases which came under his care in the Homerton Fever Hospital in the Smallpox Epidemic of 1876-7.

Degree of Vaccination.	Discrete Smallpox.					
	Under 16.			Over 16.		
	Total.	Died.	Mortality per cent.	Total.	Died.	Mortality per cent.
Unvaccinated	20	...	...	2	...	...
Said to be Vaccinated	8	...	...	29	...	...
No evidence	14	2	14·14	8	...	...
Bad	16	...	...	34	...	...
Indifferent...	32	...	...	61	...	...
One good	28	...	...	37	...	...
Two ditto	33	...	...	85	...	...
Three ditto	26	...	...	45	...	...
Four ditto	15	...	...	15	...	...
Five ditto	4	...	...	6	...	...
Six and more ditto	1	...	...	2	...	...
	197	2	1	324	...	...
	Confluent Smallpox.					
Unvaccinated	80	49	61·25	19	11	57·9
Said to be Vaccinated	9	5	55·5	38	18	47·37
No evidence	35	12	34·3	22	13	59·
Bad	3	1	33·33	23	5	21·74
Indifferent...	6	...	...	32	11	34·37
One good	5	1	20·	26	2	7·7
Two ditto	3	...	...	27	1*	3·7
Three ditto...	6	...	...	10	...	...
Four ditto	3	1*	33·33	3	...	...
Five ditto	2	...	...	2	...	...
Six and more ditto...	...	...	...	...	...	...
	152	69	45·4	202	61	30·0

* Died of Cerebral Hæmorrhage.

	Malignant Smallpox—Hæmorrhagic or Black.					
Unvaccinated	8	8	...	2	2	...
Said to be Vaccinated	2	2	...	4	4	...
No evidence	4	4	...	8	8	...
Bad	...	...	...	3	3	...
Indifferent...	2	2	...	3	3	...
One good	1	1	...	1	1	...
Two ditto	...	...	...	1	1	...
Three ditto...	...	...	...	...	...	...
Four ditto	...	...	...	1	1	...
Five ditto	...	...	...	...	...	...
Six and more ditto	...	...	...	...	...	...
	17	17	...	23	23	...

Total number of cases, 915.—(1) Unvaccinated, 131 cases. Mortality, 53 per cent. (2) Badly vaccinated, 396 cases. Mortality, 26 per cent. (3) Fairly vaccinated, 388 cases. Mortality, 2·3 per cent.

MEDICAL NEWS.

University of London.—Intermediate Examination in Medicine.—Examination for Honours.—Anatomy :—

First Class.—James Edwin Thompson, Owens College (Exhibition and Gold Medal). John Rose Bradford, B.Sc., University College (Gold Medal). Walter George Spencer, St. Bartholomew's Hospital. James Jackson Clarke, St. Mary's Hospital. Henry Grabham Lys, London Hospital. James Wheatley, King's College. *Second Class.*—Henry Claxton Bowman, Owens College. William Frederick Clarke, Guy's Hospital. *Third Class.*—Sidney Robert Alexander, Guy's Hospital. Thomas Arthur Helme, University of Edinburgh and University College. William Henry Breffit Brook, St. Bartholomew's Hospital.

Materia Medica and Pharmaceutical Chemistry :—

First Class.—Thomas Arthur Helme, University of Edinburgh and University College (Exhibition and Gold Medal). Walter George Spencer, and John Anderson Smith, St. Bartholomew's Hospital (both obtained the number of marks qualifying for the Exhibition and Medal). Kaikhosro Nasarvanji Bahadhurji, University College. William Henry Breffit Brook, Arnold Lyndon, and Charles Wheeler Forrest Young, St. Bartholomew's Hospital (of equal merit). Frédéric François Burghard, Guy's Hospital; William Permewan, and Charles Edward Sunder, University College (of equal merit). Frederick Nathaniel Brown, and William Thomas Gardner, St. Bartholomew's Hospital; and Frederick Sherman Toogood, University College (of equal merit). *Second Class.*—Hugh Smith, Guy's and London Hospitals. Edmond Fauriel Trevelyan, St. Bartholomew's Hospital. *Third Class.*—Arthur Pearson Luff, B.Sc., St. Mary's Hospital. William Barltrop Featherstone, Queen's and Mason Colleges, Birmingham; Julius Hamel, and Sydney Ernest Holder, University College; Henry John Macevoy, B.Sc., St. Thomas's Hospital; and John Ernest Nevins, Guy's Hospital and Liverpool School of Medicine (of equal merit).

Organic Chemistry :—

First Class.—Charles Wheeler Forrest Young, St. Bartholomew's Hospital (Exhibition and Gold Medal). Arthur Pearson Luff, St. Mary's Hospital (obtained the number of marks qualifying for a Medal). Frédéric François Burghard, Guy's Hospital. *Second Class.*—John Rose Bradford, University College. Henry John Macevoy, St. Thomas's Hospital. Sidney Robert Alexander, Guy's Hospital; Frederick Nathaniel Brown, St. Bartholomew's Hospital; Ernest Paul Alphonse Mariette, King's College; and George Rowell, Guy's Hospital (of equal merit). *Third Class.*—Charles Frederick Seville, Owens College; Walter George Spencer, and Edmond Fauriel Trevelyan, St. Bartholomew's Hospital (of equal merit).

Physiology and Histology :—

First Class.—John Rose Bradford (Exhibition and Gold Medal), and Herbert Henry Brown (Gold Medal), University College. *Second Class.*—Frédéric François Burghard, Guy's Hospital. Walter George Spencer, St. Bartholomew's Hospital. *Third Class.*—Arthur Pearson Luff, St. Mary's Hospital. Kaikhosro Nasarvanji Bahadhurji, University College. Sidney Robert Alexander, Guy's Hospital. Albert Lindow, King's College; and Charles Frederick Seville, Owens College (of equal merit). John Anderson Smith, St. Bartholomew's Hospital.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 21st, 1884 :—

Samuel King Alcock, Sytch House, Burslem; Owen Cole Coker, 149, Uxbridge Road, W.; Charles Joseph Heath, Cromwell Road, S.W.; Edgar Alfred Hughes, 91, Onslow Gardens, S.W.; Jno. Oliver Pemberton, 4, Lawrence Terrace, Tidal Basin; Frederick Cecil Holman Piggott, Ormond House, Richmond.

The following gentleman also, on the same day, passed the Primary Professional Examination :—

Samuel Gordon Smith, University College Hospital.

Army Medical Department.—The following were the successful Candidates for Commissions as Surgeons in Her Majesty's British Medical Service at the examination held on August 11th, and following days. The marks shown are those which were gained in order of merit :—J. R. Forrest, 2,475; M. W. Russell, 2,395: W. R. de Morinni, 2,370; B. F. Zimmerman, 2,355; A. F. Stace, 2,340; A. Stables, 2,295; J. F. E. McCraith, 2,285; E. A. C. Smith, 2,265; W. M. Hewson, 2,210, G. E. Moffet, 2,210, equal; H. A. Haines, 2,180; J. D. Moir, 2,175; R. Crofts, 2,150; G. M. Dobson, 2,140; G. E. Hale, 2,130; C. W. Johnson, 2,110; W. E. Berryman, 2,100; A. T. J. Lilly, 2,080; R. Caldwell, 2,075; C. C. Reilly, 2,065; S. E. Duncan, 2,060; J. Maker, 2,030, A. Perry, 2,030, equal; S. M. Cordozo, 2,010; A. de C. Scanlan, 2,000; H. W. James 1,990, R. Trevor, 1,990, equal; H. D. James, 1,970, W. Turner, 1,970, equal; B. O. W. Norfon, 1,960.

Naval Medical Department.—At the competition for Commissions in the Medical Service of the Royal Navy, held on the 11th August and following days, the following were the successful candidates. The marks shown are those which were gained in order of merit :—E. W. von Tunzelmann, 2,375; E. B. Townsend, 2,310; A. G. Wildey, 2,295; P. B. Handyside, 2,200; H. R. Osborne, 2,170; J. M. Rogers, 2,150; C. L. Nolan, 2,135; H. F. D. Stephens, 2,135, equal; F. H. Julyan, 2,095; E. C. Ward, 2,090; W. R. M. Young, 2,085; G. L. Baker, 2,064; H. W. G. Doyne, 2,050; A. B. Murdoch, 2,040; T. Dunlop, 2,030, S. Johnson, 2,030, equal; G. A. Dreaper, 2,000; W. H. O'Meara, 1,940; W. W. Jacobs, 1,910; A. F. Harper, 1,900; H. W. A. Burke, 1,855; E. R. D. Fasken, 1,840, J. C. F. Whicher, 1,840, equal; A. G. Andrews, 1,820, A. S. Nance, 1,820, E. St. M. Nepean, 1,820, equal.

The New Medical Knight.—Dr. William Carter Hoffmeister, of Clifton House, Cowes, in the Isle of Wight, Surgeon Apothecary to the Queen at Osborne, upon whom Her Majesty has conferred the honour of knighthood, became a licentiate of the Society of Apothecaries (London), in 1839, and graduated M.D. at the University of Glasgow in 1840. He became a member of the Royal College of Surgeons in the same year, a Fellow in 1855, and a licentiate of the Royal College of Physicians (London) in 1861. Dr. Hoffmeister has been on the medical staff of the Royal Family for many years, having acted as surgeon in the Isle of Wight not only to the Queen, but also to the late Prince Consort and her Royal Highness the Duchess of Kent. He is surgeon to the Royal yacht squadron, honorary consulting physician to the Royal Isle of Wight Infirmary, a member of the Medical Society of University College, and a Fellow of the Royal Medical and Chirurgical Society, and also of the Obstetrical Society

The Apothecaries' Hall.—At the recent Examination for the Prizes in Materia Medica and Pharmaceutical Chemistry given annually to medical students by the Society of Apothecaries, the successful Candidates were adjudged to be as follows:—First: John Henry Garrett, student of University College, the Gold Medal. Second: Henry Hamilton, student of the Bristol School of Medicine, the Silver Medal and Books.

Admiralty.—The following appointments were made on August 22nd. Staff-Surgeons—W. H. Putsey, to the *Boscawen*, for service in sick quarters at Portland; W. J. Rankin, M.D., to the *Boscawen;* and R. W. Biddulph, M.D., additional, to the *Duncan*. Surgeons—A. H. Kelly, M.D., to the *Valiant;* and J. A. Collot, to the Royal Marine Artillery Division at Portsmouth. Surgeon and Agent—J. Paulin, at Peel, Isle of Man. The following appointments were announced on August 25th. Surgeons—Edward B. Townsend, Alexander G. Wildey, Patrick B. Handyside, Harold R. Osborne, James M. Rogers, Charles L. Nolan, Harold F. D. Stephens, Francis H. Julyan, Edward C. Ward, W. R. Minching Young, George L. Baker, Herbert W. G. Doyne, Thomas Dunlop, Alexander B. Murdoch, Samuel Johnson, George A. Draper, William H. O'Meara, and E. W. von Tunzelmann, to the *Duke of Wellington;* William H. Jacobs, Alexander F. Harper, Hubert W. A. Burke, and Edward R. D. Fasker, to the *Royal Adelaide;* James C. F. Whicher, to the *Impregnable;* Alexander G. Andrews, to the *Asia;* Arthur S. Nance, to the *Indus;* Evan H. St. Nepean, to the *Pembroke.*

Professor Virchow.—A Berlin correspondent of the *Canadian Medical Journal* for July supplies some interesting facts concerning the great Berlin Professor. "The central figure at Berlin is Virchow. With the exception of the years 1849–56, he has been here as student, prosector, and professor since 1839. In 1844 he became assistant to Froriep, whom he succeeded as Prosector of Pathology in 1846, losing the position in 1849 on account of his active participation in the political disturbances of that period. He was, however (not without considerable trouble), reinstated, and shortly after was called to Würzburg as Professor of Pathology, returning to Berlin in 1856. Under his direction the Pathological Institute of the Charité has become the most famous pathological school in Europe; and to name the men who have been his assistants is to go over those of many of the best known teachers and investigators in Germany—Klebs, Recklinghausen, Rindfleisch, Cohnheim, Liebrich, Hoppe-Seyler, to say nothing of the younger men, Orth, Ponfick, Salkouski, and others. After 40 years of teaching, it is but natural that he should have much of the drudgery done by his able assistants, Jurgens, Grawitz, and Israel, who conduct the autopsies and the courses on pathological histology. Students, however, have still the great privilege of hearing him in three different classes. For the first three or four Mondays of the semester, from 7.30 to 10 a.m., he performs an autopsy before the class, giving detailed directions as to methods and the proper modes of observation. On Wednesday and Saturday are held the famous demonstration courses on morbid anatomy, in which the material for the week, often ten or fifteen cases on each occasion, is brought before the students. The time occupied is at least two and a half hours, the first half of which is taken up by some special subject, the pathology of which is well illustrated by the specimens at hand. At 11 a.m he gives each day a lecture on special pathology. Politics and anthropology now absorb the greater part of his time. He is a member of the German Parliament and of the Prussian House of Representatives; and I noticed a day or so ago in one of the daily papers that Virchow had spoken in one of these 38 times during the session. It need scarcely be stated that he is an advanced Liberal. He is also a member of the City Council—not an idle one either, as the copious literature of the "canalisation" (drainage) system of the city can testify. His archæological and anthropological studies are most extensive, and it is upon these subjects that he now chiefly writes. When one turns to the Index of the Berlin Archæological or Anthropological Societies, the figures after his name stand thick and deep, just as they do in a similar index of medical subjects. He has been collaborator with Dr. Schliemann in several of the important works issued on Trojan antiquities. His collection of skulls and skeletons of different races, one of the most important in Europe, will doubtless find an appropriate place in the new Archæological Museum erected by the Government. There are those who grudge him the time he spends on politics and his favourite studies, but surely he has earned a repose from active pathological work, and may well leave section cutting and bacteria-staining to the smaller fry; and when we consider that in addition to the classes above-mentioned, he is President of the Berlin Medical Society, and edits his *Archiv*, now a large monthly journal, it can scarcely be said that he neglects professional duties. On all questions of general, medical, and scientific interest his utterances are not infrequent, and display a judicious conservatism—as witness his sound position regarding the Darwinian theory as opposed to the vagaries of Haeckel. It is satisfactory to note that the attack of gouty nephritis of some eighteen months ago appears to have left no trace. Aged, of course, he is (he is now 63), but there is still a vigour and sprightliness in the wiry frame which bespeak years of continued activity."

The Royal Irish University.—The plans for the Royal University buildings have been approved, and provide for the alteration of the old Exhibition Palace premises, and the addition thereto of a new wing on the ground adjoining Hatch Street. The new building, which will be of one storey, will have a frontage of 200 feet towards Earlsfort Terrace, and 180 feet towards Hatch Street, the extreme depth from Earlsfort Terrace being 240 feet. A chemical laboratory, 120 feet by 30 feet, lighted from the roof and sides, will form a part of the wing, and will occupy a position facing Earlsfort Terrace. Adjoining this spacious apartment will be a corridor extending right and left, off which will be smaller laboratories, stores, and retiring rooms, and an apartment for the study of histology 58 feet by 16 feet. In the centre of the building it is intended to have a large open court 50 feet square, so as to provide abundant light and ventilation to the surrounding premises. The physical laboratory will occupy a position to the rear, and will be 90 feet by 30 feet, and adjoining will be the physiological museum, an apartment 57 feet by 30 feet. Both these rooms will be extremely lofty, and will be lighted both from the roof and sides. Behind these apartments will be the dissecting room, 120 feet by 30 feet. It will be lighted from the sides and from the roof, which will be oaken, and of an ornamental character. In connection with the dissecting room will be a smoking room for students (this apartment being 25 feet by 30 feet), and lavatories, covered corridors, and retiring rooms. Between the new and old building will run a through passage 40 feet in width, and the entrance to the wing will be obtained by a corridor 10 feet wide, forming a continuation of the front corridor of the old building. The frontage of the wing will be constructed of Dungannon sandstone, from the quarries of Lord Ranfurley, and will be of an ornamental character, the style of architecture adopted being that of the Italian school. Rising from the centre of the building will be a large campanile attaining an elevation of 90 feet

from the ground. This will be utilised as a ventilating shaft in connection with which the different apartments will be brought by special arrangement. The alterations of the old building mainly consist of the division of the large apartments into smaller rooms suitable for the purposes of the University. It had been intended to have had the old front taken down and re-built in cut stone, so as to match the interior of the new building, but this project was abandoned, as it was found the expense would have been too great. Some necessary repairs will, however, be executed. It had also been in contemplation to have erected a large clock tower on the northern side, but this plan was likewise given up on the ground of its expense. The estimated cost of the works is 25,000*l.*, of which 18,000*l.* will be expended on the new building. The plans have been prepared by the architect to the Board of Works, Mr. James H. Owen, F.R.I.A., and will be carried out under his personal supervision. Dr. George Moyers, South Richmond Street, is the contractor. The works will be commenced immediately, and will probably occupy about two years.

The Sanitary State of Islington.—In the course of an elaborate report which Dr. C. Meymott Tidy, as the Medical Officer of Islington—a parish of over 300,000 inhabitants—has issued, he says that the death-rate of the district during the past year has been 17·1 per 1,000 of the population. A total of 5,140 deaths had been recorded in the parish, of whom 2,604 were males, and 2,536 females. Of the total deaths, 2,042 cases occurred in the western, and 3,098 in the eastern division. The actual number of deaths in the past year was rather less than the total in the previous year. Considering the increase in the population of the parish, the death-rate of 17·1 per 1,000 was the lowest to be found upon the Islington records. There was one actual death from small-pox within the parish, and in the Metropolitan District Asylums Board's hospitals two deaths of parishioners were recorded. Measles was the disease most severely epidemic during the year; scarlatina was not so seriously epidemic. During the much more severely epidemic years of 1870–69–63–62 and 59 the deaths from scarlatina were respectively 465, 313, 392, 210, and 216. The populations of these years were 209,057, 202,182, 166,922, 161,679, and 143,338, as against 301,283 in the year ending 1883. From diphtheria 70 deaths were certified to have occurred. Only 119 deaths were due to whooping cough, the lowest number recorded since 1870. From diarrhœa there were 162 deaths, as against 149, 216, and 295 in the three previous years. To fever generally 86 deaths were referred, as against 77 and 79 in the two previous years. In 1883 there were only 36 cases of sickness from small-pox, as against 142 and 797 in 1882 and 1881 respectively. Since February, however, of the present year (1884) small-pox had again become seriously epidemic, so much so, in fact, that even should there be a temporary abatement during the summer months, there was every indication that at the close of the year the parishioners would be brought face to face with a still severer outbreak of this dreaded disease. In the circumstances, Dr. Tidy said he regretted that he was no longer able to congratulate the vestry on possessing camp hospital premises, which had, unfortunately, in his opinion, been entirely abandoned. As public analyst of the parish, Dr. Tidy reports that in the twelve months ended December last he examined 113 samples of food, 112 of which were submitted to him by the vestry's inspectors, and one by the public. Of the 112 samples submitted by the inspectors, two samples of milk were adulterated with 20 per cent. of added water in each case, and one sample of so-called "butter" was entirely composed of "oleomargarine," or purified fat. The one sample of food submitted by the public was one of black tea received from the Holborn Guardians, which he certified to be genuine. It was further stated in the report that in the year 1883 661 bodies were received at the mortuary; 371 inquests were held, and 57*l.* 7*s.* 6*d.* was paid for the accommodation afforded the coroner. The proportion of inquests to deaths was about 7·22 per cent. for the whole year. In referring to the sanitary work of the year, Dr. Tidy mentions that 626 visits have been made to the bakehouses in the parish, the Legislature having by the Factory and Workshop Act, 1883, re-transferred their inspection from Her Majesty's inspectors of factories to the vestries and District Boards of the metropolis. "This step," says the Medical Officer of Health for Islington, "will, in my opinion, prove beneficial in every way, but the transferance would have been more readily effected by the re-enactment of the Bakehouses Regulation Act of 1863 than by amending the Factory and Workshop Act of 1878." It seems, from Dr. Tidy's report, that the marriage-rate in Islington in 1883 was 15·5 per 1,000, against 16·1 in each of the two preceding years. The birth-rate was 32·8 per 1,000 of the population, against 34·3 in 1882 and 35 in 1881. This was the smallest birth-rate recorded in the parish since 1858, when the rate was 32·1. The death-rate has already been mentioned.

An International Scientific Association.—Mr. Charles Minot, *Boston Medical Journal*, July 31st, writes to state that there has been an active movement in operation among some of the leading scientific men in America to secure signatures to a memorial addressed to the two great scientific associations meeting this year in that country, having for its object to induce them to consider the advisability of forming an International Association. Another opportunity so favourable as the meetings of the British and American Association, is not likely to recur very soon. Mr. Minot states that in 1881 a proposal was actively discussed in the American Association of inviting the British Association to America, and it was finally determined, greatly as he believes from real modesty, to postpone the invitation, and to issue a large number of special requests to individuals to attend the meeting of the American Association, held at Montreal. The great number who accepted the invitation led to the hope that the British Association would be induced to come over as a body. The matter in the meantime was independently taken up by the Canadians and pushed eagerly and generously towards the great success which has followed. This has given strength to the anticipations of the successful issue that may attend intercommunication of the two bodies upon the matter. At present no definite plans have been formed, as it has been felt that public discussion is necessary before coming to any decision.

International Congress of Surgical and Orthopædic Instrument Makers.—The second annual meeting of the International Association of Surgical and Orthopædic Instrument Makers will take place at Dresden, on September 14th next. Although founded only last year, this association is already represented by a large number of the leading continental and some English and American firms. Its object is to attain by mutual instruction the highest standard of excellence in the improvement of instruments and mechanical appliances, assurance of priority of inventions, and to exclude the intermediate dealers who are strangers to the trade, who from want of technical knowledge furnish instruments of inferior description detrimental to the reputation of the trade at large. In order to attain these objects and to uphold the dignity of the trade, according to the regulations of this association, none but *bonâ fide* instrument makers who have served their full term of apprenticeship to the trade are admitted as members. Members of firms desirous of joining this association and to take part at the forthcoming meeting, are invited to forward their names and addresses to the Secretary, Mr. C. Walter Biondetti, Basle; or to Mr. C. W. Krohne (Krohne and Sesemann), 8, Duke Street, Manchester Square, London, W., both Members of the Committee.

Recent Legacies.—The late Mr. James Lyne Hancock has left by his will, 1,000*l.* each to King's College Hospital and St. George's Hospital; 500*l.* each to St. Bartholomew's Hospital, the Hospital for Diseases of the Chest, City Road, the Royal Hospital for Incurables, Putney, and the London Hospital, Whitechapel. The North London Consumptive Hospital has received a legacy of 1,000*l.* under the will of the late Mrs. Catherine Abram.

Population of Paris.—The complete results of the census made in December, 1881, as far as they concern the population of Paris, have only just been published by the

Prefect of the Seine. Paris had at that time 2,239,928 inhabitants, of whom 1,113,326 were males, and 1,126,602 females. The population of the French capital has increased by 251,122 souls since 1876. The first census ever made in Paris reaches back to the year 1770, and shows the city to have had at that time 720,000 inhabitants. In 1881, Paris numbered 68,126 houses, 32,422 of which were over four stories high. There were 440,022 married men, 446,297 married women, 621,569 single men, and 557,054 girls of all ages. The youngest married man was 17 years and the youngest married woman 14 years of age, both exceptional cases. The number of widowers was 51,735, and of widows 123,251, of whom 2 were 16 and 3 18 years of age. The following figures show the degrees of longevity: —6,386 persons were over 80, 2,747 between 84 and 89, 640 over 90, 198 over 96 years of age. There were, besides, 20 centenarians, including 4 bachelors, 1 married man, 6 widowers, 1 spinster, 1 married woman, and 7 widows. Of the inhabitants of Paris 1,021,996 men and 1,053,804 women were born in other parts of France, and only 348,845 men and 372,576 women in Paris itself. The census of foreigners in Paris, gave 91,872 men and 75,542 women, distributed as follows:—Belgians, 23,981 men and 21,300 women; Italians, 15,703 men and 5,874 women; Germans, 15,441 men and 15,749 women; Swiss, 12,264 men and 8,546 women; English, 4,607 men and 6,132 women; Americans, 2,954 men and 2,973 women; Chinese, 65; other Asiatics, 149. With reference to the various callings followed, the following figures may be quoted. There were 1,102,313 persons (540,288 men and 562,205 women) engaged in industrial pursuits, and 551,678 persons in trade. The garrison and police include 25,482 men, and it is estimated that 8,565 women obtain their livelihood through them. There were 66,720 persons (of whom 37,405 were men) employed in the service of the Government and the municipality. The service of the Church gave employment to 1,858 men; the courts of justice to 16,899 persons; the medical profession to 18,304 men and women; the schools to 9,324 men and 12,794 women. Religious societies claimed 1,569 men and 4,369 women as belonging to them. The artists numbered 42,646, of whom 22,462 were men and 20,164 women. Amongst the class of *savants*, literary men, and journalists 5,684 and 5,500 women. The number of individuals without a calling (amongst whom pupils and students, persons unemployed, beggars, tramps, &c.) was estimated at only 61,692 persons.

Population of Japan.—The population of Japan, according to the Census of 1883, amounts to 37,011,964; and at the end of the year 1883, the three largest towns contained the following number of inhabitants:—Tokio, 299,191 families with 999,623 souls; Kioto, 203,477 families with 840,943 souls; and Osaka 364,254 families with 1,585,696 souls.

An Ultra-Centenarian.—A considerable number of ultra-centenarians have owed their reputation to the absence of official documents. But in the case of one Marie Durand, who died recently at Auberive-en-Royans (Isère) her duly signed baptismal certificate has been produced, from which it appears that she was baptized March 16, 1761, and was consequently, at the time of death, 123 years of age. Her husband died 96 years ago.

Insanity in France.—In the *Revue Scientifique* for April 5th, M. Legoyt gives an interesting review of the statistics of lunacy in France during the period 1871–80. Insanity, he observes, is increasing in France more rapidly than the population; and, in fact, it prevails to a greater extent than the published documents show, for while the number of insane treated in the asylums is known, there are many lunatics not returned at the Census, the number of whom it is impossible to ascertain. The inmates admitted to asylums increased from 11,872 in 1871 to 16,535 in 1880; and the following facts are brought out by M. Legoyt: — (1) There were 5,507 relapsed lunatics admitted, the greater number occurring in the first year of the reputed cure, and especially in the first month. From this period they become less and less frequent, but they are still met with after the cure seemed to be complete, in the ninth, tenth, eleventh, twelfth year and more. (2) Most admissions, in proportion to the population, take place between the ages of 20 and 50, the maximum being between 30 and 40. The ages between 15 and 20 and then those between 60 and 70 and above furnish the fewest. In advanced age women are more frequently lunatics than men. (3) More celibates are admitted than married or widowed persons, viz., one celibate per 2,707 inhabitants, one married per 4,937, and one widowed per 3,936. (4) Distributing the admissions according to the time of the year when they take place, it is found that these increase with the temperature, viz., 22·46 per cent. in winter, 26·42 in spring, in 27·96 summer, and 23·46 in autumn. (5) Among 28,621 lunatics, concerning whom this information could be obtained, 4,056, or 14·17 per cent. inherited the disease from the father or mother, and sometimes both. (6) Of 1,000 cases of insanity, 607 seemed to have been due to physical causes (as age, misery, venereal excess, drinking, emale diseases, epilepsy, or other diseases of the nervous system, blows, falls, &c.); and 393 to moral causes (as domestic sorrows, loss of fortune or employment, death of loved persons, love and jealousy, pride and religious perversion, disappointment, ambition, &c.). These physical and moral causes of insanity are exactly those of suicide, insanity and suicide being, in fact, but two effects of the same cause. Just as in the case of suicides, women are much more subject to the influence of moral causes than men. (7) Of 1,000 lunatics admitted, 174 had been insane for less than a month, 269 for between one and six months, 134 for between six and twelve months, 111 for between one and two years, and 140 for more than two years. In presence of these figures it is not surprising that the cases treated in the asylums present so few chances of cure.

Sheffield General Infirmary.—On Wednesday the new out-patient building was opened. Accommodation of the kind has long been required at the infirmary owing to the constantly increasing demands made upon the space in the institution. Hitherto the poor people attending as out-patients have been received in the main building, but this has caused considerable inconvenience and delay both to the persons seeking relief and the medical staff. It was therefore decided that the new structure should have a separate entrance. Although this plan has been carried out, the new building is, nevertheless, connected with the infirmary by a corridor. The new hall, which is octagonal, is 50 feet in diameter. Radiating from the waiting hall are the physicians' consulting room and one ante-room, surgeons' consulting room and two ante-rooms, ophthalmic surgeons' room and two ante-rooms, one of which is dark. In addition to these is an admission room and large dispensary. The new building has a very neat appearance, and will accommodate a very large number of persons. The entire cost, exclusive of furniture, is under 5,500*l*. The appeal of the Weekly Board for help was rapidly responded to, with the result that only the comparatively small sum of 600*l*. requires to be raised to defray the expenses of furnishing and the making of a new road to the hall from Montgomery Terrace Road.

Successful Removal of the Spleen in a Dog.—Dr. Mercier, of the West Pennsylvania Hospital, Pittsburg, relates (*Philadelphia Medical Reporter*, May 31st) the case of a black poodle, a year old, and weighing about 15 lbs., from which the spleen was removed in 1875. It was gently detached from surrounding parts, leaving only a narrow pedicle, which was divided after being tied with silk ligatures. These were cut off short and allowed to remain in the wound. The incision of the abdomen was closed by six silver sutures. These were removed after two weeks, and the dog continued a house-pet for nine years, exhibiting no change in disposition and acquiring about double of its former weight. He was a good house dog, and in every way a healthy animal. He died suddenly after exposure to severe cold, January, 1884, the only lesion discernible being severe enteritis affecting the lower part of the small intestine. There was not the slightest trace of the spleen, nothing to denote its former locality, no remains of the pedicle, nor anything to show that nature had made the slightest attempt at restitution.

PRECAUTIONS AGAINST CHOLERA. — Writing to the National Health Society (44, Berners Street) with reference to the leaflet entitled "How to Prevent and Oppose the Cholera," which the society has prepared for house to house distribution by local authorities, the Local Government Board have announced that their Medical Department "are now preparing two other papers on the subject for the more immediate use of the Board of Trade and Her Majesty's Inspectors of Factories." These papers will, however, of necessity be somewhat technical, and unadapted for general distribution amongst the poor, which is the special purpose of the leaflet of the National Health Society.

APPOINTMENTS.

BENTHALL, W., M.B. Camb., M.R.C.S.—Honorary Physician to the Derbyshire General Infirmary.

CAIGER, F. F., M.B., B.S., M.R.C.S., L.R.C.P.—Resident House Physician to St. Thomas's Hospital.

COLLINS, E. T., M.R.C.S., L.R.C.P., L.S.A.—House Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

FOWKE, FREDERICK WILLIAM, M. and L.R.C.P. Edin., M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Priors Marston District, *vice* Mr. F. W. S. Culhane, resigned.

GLOVER LYON, T., M.R.C.S., L.R.C.P. (Exten.)—Clinical Assistant in the Skin and Ear Department to St. Thomas's Hospital.

GREAVES, C. A., M.B. Lond., M.R.C.S., L.S.A.—Honorary Physician to the Derbyshire General Infirmary.

GREEN, C. D., M.R.C.S., L.R.C.P.—Assistant House Surgeon to St. Thomas's Hospital.

HUDSON, ERNEST.—Senior House Surgeon to the Royal London (Moorfields) Ophthalmic Hospital.

HULL, W., M.B., M.R.C.S., L.R.C.P.—Resident Accoucheur to St. Thomas's Hospital.

JAMIESON, CHARLES, M.B. and C.M. Glas.—Medical Officer to the Finchingfield District, Braintree Union, in the room of Mr. E. Dawson, deceased.

JOHNSTON, G. D., M.R.C.S., L.R.C.P.—Resident House Physician to St. Thomas's Hospital.

KNOX, D. N., M.B., C.M., F.F.P.S.—Surgeon to the Glasgow Royal Infirmary.

LAWSON, R., M.R.C.S., L.S.A.—Assistant House Physician to St. Thomas's Hospital.

MACKENZIE, H. W. G., M.A., M.B.—Clinical Assistant in the Special Department for Diseases of the Throat to St. Thomas's Hospital.

ORFORD, J., M.R.C.S., L.R.C.P., L.S.A.—House Surgeon to St. Thomas's Hospital.

RICHARDS, WILLIAM, M.B., C.M. Edin.—House Surgeon to the Queen's Hospital, Birmingham, *vice* Charles Sanders, M.B. Lond., resigned.

ROBINSON, H. B., M.R.C.S., L.R.C.P.—House Surgeon to St. Thomas's Hospital.

STONE, F. W. S., M.R.C.S., L.R.C.P. (Exten.)—Non-Resident House Physician to St. Thomas's Hospital.

WITCHELL, E. A., M.B., C.M. Univ. Edin.—House Surgeon to the Stroud General Hospital.

VACANCIES.

COUNTY ASYLUM, SHREWSBURY.—Junior Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Candidates must be registered practitioners, and not over thirty years of age. Applications, with not more six recent testimonials, to be sent to the Superintendent of the Asylum, from whom further particulars can be obtained, on or before September 1st.

DURSLEY UNION.—Medical Officer to the Third District, *vice* Mr. A. S. Connellan, resigned. Area, 6,410. Population, 2,157. Salary, £80 per annum.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, WESTMINSTER, S.W.—Physician. Candidates must be Fellows or Members of the Royal College of Physicians, London, and Graduates in Medicine of a British University. Applications, with Testimonials, to be sent to the Secretary, on or before September 6th.

HULL GENERAL INFIRMARY.—Assistant House Surgeon. Candidates must be fully qualified. Applications, with copies of testimonials, to be addressed, The Chairman, House Committee, not later than September 2nd.

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer. (*For particulars see Advertisement.*)

ST. BARTHOLOMEW'S HOSPITAL.—Dental Surgeon. Applications with Testimonials must be left, on or before September 4th, at the Clerk's office. Further particulars from Wm. Henry Cross, Clerk.

ST. MARY'S HOSPITAL, MANCHESTER.—House Surgeon and Resident Obstetric Assistant. (*For particulars see Advertisement.*)

THE HOSPITAL FOR WOMEN, SOHO SQUARE, LONDON, W.—House Physician. (*For particulars see Advertisement.*)

UNIVERSITY COLLEGE, LONDON.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

DEATHS.

CUOLAHAN, HUGH, M.D., at 9, Grange Road, Bermondsey, on August 20th, in his 67th year.

EVERETT, D., F.R.C.S., late of Worcester, at Sydenham, on August 21st, aged 66.

HAVERS, J., F.R.C.S., at White Hill, Great Berkhampsted, Herts, on August 20th, in his 70th year.

HILLMAR, W., Brigade-Surgeon, A.M.D. (retired), at Beech House, Charmouth, Dorset, on August 19th, aged 51.

PEAR, G., M.D., late of Windsor, at 24, Park Crescent, Brighton, on August 21st, aged 78.

PEELE, RICHARD DE COURCY, Surgeon-Major (retired), at Ludlow, on August 23rd, aged 66.

POPHAM, J., M.D., late of the city of Cork, at Oxford House, Ealing, Middlesex, on August 26th, in his 79th year.

WESTMACOTT, J. G., M.D., L.R.C.S. Edin., of Howley House, Maida Hill, on August 23rd, aged 73.

NOTES, QUERIES, AND REPLIES.

At the Examination of Candidates for Her Majesty's Army, Indian and Naval Medical Services, the following were the questions :—

ANATOMY AND PHYSIOLOGY.—1. Describe the tibia, giving an account of the origin and insertion of the muscles arising from or inserted into it. Describe also the structure of the knee-joint. 2. Describe the abdominal aorta, giving an account of its relation to neighbouring parts. Enumerate its branches, and describe in detail the relation and distribution of those of the cœliac axis. 3. What are the sources of animal heat, and the nature of the mechanism by which it is regulated and distributed? Explain how it is that a mean temperature of the body is preserved under exposure to the influence of either extreme heat or extreme cold. 4. Describe the origin, distribution, anatomical relations and functions of the spinal accessory nerve and its branches. 5. Describe the dissection by which you would expose the parotid gland. Give an account of its connection and relation to the various neighbouring structures.

SURGERY.—1. What are the causes which give rise to extravasation of urine in the perinæal region? Describe the appearance of the parts in the various stages of extravasation; and the treatment; and the consequences of such an injury. 2. Describe the symptoms by which chronic inflammatory swelling of the testicle may be diagnosed from any other enlargement of that organ, and the treatment to be adopted for the relief of the first mentioned condition. 3. Explain generally what is understood by the term "Tertiary Syphilis." What tissues does it most frequently affect; and what should be the treatment under its various conditions? 4. What are the constitutional and local causes, and general characteristics, of gangrene affecting any portion of the lower limb in old age, independent of any severe accident; and what should be the treatment, according to the various stages or conditions of the malady? 5. Describe the conditions known as "Caries" of bone. What bones are most commonly thus affected, and what serious complications may follow when it attacks certain bones? What are the best local and constitutional measures to be recommended under these various circumstances? 6. Describe the appearance and conditions of a knee-joint when the seat of acute sinovitis; the treatment of such a case; and any unfavourable symptoms that may ensue when the acute state has subsided.

MEDICINE.—1. Explain the meaning of "vacciuation." Describe its purpose as first applied to the human race; and mention how, when, and by whom it came to be so employed. Explain what is meant by "primary vaccination," and what by "secondary vaccination" or "re-vaccination;" and describe the regular phenomena which follow each of these operations; also, describe the appearance of a perfect vaccine pustule, and of the scar which is typical of a genuine vaccination, and how its characteristic appearance is brought about. Explain, further, the "rationale" of "arm to arm" vaccination, and mention the age at which primary vaccination is to be doue; and the means necessary to secure its success. Lastly, explain how "sufficiency in amount" of vaccination is to be judged of; and how the operatiou is performed. 2. What are the indications afforded by the opthalmoscope in diseases of the brain, of its membranes, aud of the cranial bones? 3. What are the diseases which may be mistaken for "enteric fever," in the absence of the rose rash? and discuss the points in each case by which your diagnosis would be arrived at. 4. Describe the causation, morbid anatomy, histology, and treatment of "rickets." 5. Describe the causation, phenomena, and morbid anatomy of the various forms of febrile disease usually described as "puerperal fever." What are the indications for their treatment, prophylactic and curative; and on what grounds would you base a prognosis? 6. Name the officinal preparations of "ergot," and the doses of each. What are the chemical principles obtained from "ergot?" and in which of them resides the activity of the drug? Describe the physiological action, the remedial uses, and the mode of administration of the crude drug, and of those of its constituents which have been used.

ZOOLOGY, BOTANY, AND PHYSICS.—*Zoology:* 1. What are the classes of the "vertebrata?" Arrange these classes into two groups, in accordance with the presence or absence of an amnion during development. 2. Describe the stomach of a sheep, and enumerate the more important points of structure which are usually associated with this form of stomach in such animals as possess it. 3. In what order of birds are the wings so imperfectly developed as to be incapable of subserving the purpose of flight. Point out the leading features in the geographical distribution of this order. 4. Select any typical example you please of the "cœlenterata," and describe its structure. 5. Enumerate the principal points of difference as regards mouth-organs and wings between the following order of insects—"coleoptera," "hymenoptera," "lepidoptera." Give an example of each of these orders. *Botany:* 6. What are the essential, and what the non-essential, parts of a flower? Adduce one or more instances of flowers in which the non-essential parts are absent. 7. What is the difference between the fibre of "cotton" and that of "flax?" From what part of the plants yielding them is each obtained? 8. Define the natural order "rannuculaceæ?" Adduce from the pharmacopœia one or more examples of plants referable to this order. 9. What is "cyclosis?" Give some examples of this phenomenon. 10. What is "chlorophyll?" Mention the conditions necessary for its development. *Physics:* 11. What is meant by the "law of sines," as applicable to the refraction of light? 12. What is meant by the "dark lines" on the solar spectrum? How may these lines be accounted for? 13. State the evidence from which it has been inferred that various parts of the earth's surface are slowly undergoing changes of level. 14. What is "river delta?" Mention some of the principal river deltas of the world. 15. Explain the formation of "dew."

Tonsil.—Thanks for your reminder; the letter has been in consequence applied for.

A. B.—Never, that we know of.

COMMUNICATIONS RECEIVED—

Dr. D. B. LEES, London; Dr. CAMERON, M.P., London; Dr. SAUNDBY, Birmingham; Mr. HENRY NATHAN, London; Miss E. FAITHFULL, London; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Dr. HOWE, Edinburgh; Mr. HASLEWOOD, Buxton; Dr. DE HAVILLAND HALL, London; THE SECRETARY OF THE NAVAL MEDICAL DEPARTMENT, London; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT, London; THE SECRETARY OF THE UNIVERSITY OF LONDON; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. J. T. W. BACOT, Seaton, Devon; Dr. B. HOWARD, London; THE REGISTRAR-GENERAL, Edinburgh; THE MILITARY SECRETARY, INDIA OFFICE, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Dr. CHAMPNEYS, London; Mr. ALEX. WHEELER, Darlington; Mr. THOS. FLETCHER, Warrington; Prof. GAIRDNER, Glasgow; Dr. HERMAN, London; Dr. CLIFFORD BEALE, London; Dr. LAWRENCE HUMPHRY, Cambridge; THE SECRETARY OF THE BRITISH MEDICAL ASSOCIATION, Belfast; Mr. STEVENS, London; Mr. NOBLE SMITH, London; D. DRESCHFELD, Manchester.

BOOKS RECEIVED—

Whartons and Stillé's Medical Jurisprudence, Vols. i. and iii.—A Romance of War, by Charles Cameron, M.D., LL.D., M.P.—Die Geburt bei engem Becken, von Dr. Carl C. T. Litzmann—London Water, by A. de C. Scott—Hospital Sunday and Hospital Saturday, by Henry C. Burdett—Vaccination, by Alexander Wheeler—Report on the Sanitary Condition of the Parish of St. Mary, Islington, for the year 1883—Le Choléra, par H. Hanhart—Le Lait de la Femme, &c., par Henri Féry—The American Exhibition, London, 1886—The Encyclopædic Dictionary, Part 8.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weckblad—Maryland Medical Journal—The Students' Journal and Hospital Gazette—Savoy de Hipocrates—Philadelphia Medical Times—The Therapeutic Gazette—Revue D'Hygiene—Scienze Mediche—The Detroit Lancet—Canadian Medical and Surgical Journal—Revista de Medicina—The Sheffield Daily Telegraph, August 27.

APPOINTMENTS FOR THE WEEK.

Friday, August 29 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, August 30.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, September 1.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, September 2.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Arsenic in Wall Papers and Articles of Clothing."

Wednesday, September 3.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m. London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Drinking Water."

Thursday, September 4.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, September 5.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Common Food Adulterations."

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES

AND GAZETTE.

No. 1784. LONDON, SATURDAY, SEPTEMBER 6, 1884.

Contents.

ON METAPLASIA.[1]

By PROFESSOR VIRCHOW.

In the first half of the present century medical men looked upon vital processes, both in health and disease, as essentially of a chemical nature. Life was thought to be bound up with certain substances, which existed originally in the body, and especially in the blood, in a fluid condition, and which, by assuming a solid form, made up the various parts of the organism. Even Schwann, in his celebrated cellular theory, adopted the view that cells are formed by a process of crystallization. The doctrines as to these substances and their formation into tissues first came from England where Hewson and John Hunter enunciated the doctrine of plastic lymph, and they were employed with considerable plausibility by Rokitansky in his system of humoral pathology; but they would scarcely have obtained any extensive acceptation had it not been that in physiology also the view had taken firm root that it was the liquor sanguinis (the intercellular fluid of the blood), or as Schulze appropriately termed it the *Plasma*, which was the ultimate cause both of formative and nutritive processes, processes which were accordingly regarded as identical. It is not necessary to point out in any further detail what important results this teaching had on medicine. In reality men had long seen that in every case treatment must, above all, aim at the regulation of nutrition. But it was the higher analysis of individual organic processes which first taught us to turn our attention away from all more or less hypothetical propositions.

When almost a generation ago I made the first step towards the cellular pathology, I put forward, as the basis of the new view, the axiom *omnis cellula e cellulâ*, which stood in distinct opposition to the old teaching that cells were formed of plastic material. For if the cells invariably originate from older cells, and are produced in no other way, all necessity to search for a blastema, or material from which cells are formed, ceases to exist.

It is also sufficiently evident that the nutritive process which goes on in cells already formed cannot be identical with the process by which cells are formed in the first instance, for the object of nutrition is to keep cells alive, whereas the formative process consists in one cell giving origin to other cells. There is therefore a manifest contrast between the nutritive

[1] Address delivered at the International Congress at Copenhagen.

or trophic, and the formative or plastic process, though the same material may be applied in one case to the nourishment of cells, and in another to the production of new cells. All organic activity takes place within cells, never outside them.

It is not necessary here in this assemblage to point out the autonomy of the cell. I will only define somewhat more exactly the notion of autonomous nutrition, by which I mean not the nutrition of the individual, but nutrition in connection with the separate cell. The idea of circulating material which is now used for individual, now for cellular nutrition, has done much to complicate matters, for "interchange of material" and "nutrition" by no means coincide with each other. There are, to wit, many forms of interchange of material which have nothing whatever to do with nutritive processes. Such is the interchange of material in dead parts. When a portion of the organism dies *in situ*, interchange of material by no means ceases; so much material is absorbed into the body from the dead part that the former may be exposed to serious dangers. Secondly, living parts take up and throw off material which is not in any way employed in nourishing them. For instance, during digestion the intestinal epithelial cells, and the cells of the liver absorb fat, which they give up again after a short interval. I have termed this active process "transit interchange," for it has no relation to the nutrition of the cells concerned in it.

Cellular nutrition is essentially a process of restoration; new material replaces that which has been used up, the autonomous cell taking up the nourishment required for its maintenance, which, however, it has first to elaborate within itself. From the nutritive, material, muscle cells form myosin, nerve cells neurin, and so on. We may call this a "plastic" process, but it is in every respect a different one from that to which we used to apply that term. The name "plastic," however, we ought to reserve for the formation of *new* elements, of *new* cells—a process which in old days we used to call assimilation.

But though we may keep up the distinction between nutrition and formation, there still remains a considerable array of phenomena, as to which it is difficult to know to what class to refer them.

Thus *growth* has not the preservation of parts for its sole object, whilst its result is by no means invariably the new formation of living elements. The difficulty depends on the fact that under the idea of growth are comprised two entirely different processes. For instance, in *hypertrophy* the cells, by taking up new material, grow larger and larger, while in *hyperplasia* we find an actual new formation either of cells, or at any rate, as in muscle, of nuclei. Both processes must therefore be kept separate; a nerve for instance grows by "nutrition," a blood-vessel on the other hand by "formation."

But there is yet another group of processes which cannot be treated in such a disconnected manner, and to which I especially wish to direct your attention today, as they are of the greatest practical importance. In their essence they are more closely allied to the plastic than to the nutritive process, for their final result is not so much the maintenance of parts as their organic metamorphosis, in other words the production of new forms of tissue. And yet they are not plastic in the common acceptation of the term, though, at any rate in most cases, new elements may be produced by them. I have, therefore, given them the name of "Metaplasia," and their characteristic is maintenance of cells with simultaneous change in the character of the tissue.

Metaplasias form the basis of important pathological processes, although they are not essentially of a pathological nature; on the contrary, they govern numerous phenomena of physiological life. Indeed, they have not only a considerable significance in the building up of the individual, but they form one of the postulates of the theories which are commonly comprised under the name of *Darwinism*. What embryologists call differentiation, and evolutionists transformation, fall in their chief points, though not exclusively, under the head of Metaplasia. The comprehension of these processes has not only been rendered more difficult thereby, but the processes which tend to produce complete organs have not been sharply enough defined from those whose final object may be the formation of new tissue. To take an example. The formation of bone takes place, as we all know, though comparatively seldom, during embryonic life; but bone is never produced directly from the formative cells of the embryo. First, a transitional tissue is formed, and from that—by Metaplasia—the bone itself, just as in the pedigree of animals which the Darwinians have drawn up, we travel very far down in the line of descent before we meet with animals provided with an osseous system.

The discussion, as to the nature of the tissue from which bone is formed, lasted far into the present century. But all now agree that in the formation of solid bone, its place is first occupied by soft tissue which, after conversion into bone tissue, still remains as a constituent thereof. When I began my studies I was taught that in bone-tissue there was always hidden cartilage, which could again be produced, either by morbid or artificial processes.

It has been very difficult to keep separate the idea of calcification and that of ossification. We know now that there exists calcified cartilage which is not bone-tissue. In ossification not only is lime taken up, but the whole organic basis changes character; solid bone contains chondrin-producing besides lime-producing tissue. Indeed, our present views are opposed to those previously held, inasmuch as it is now a question whether cartilage can as a rule pass into bone by transformation only.

The difficulty of coming to a right understanding on this matter lay chiefly before our time in faulty methods of research. A bone consists in fact not only of bone-tissue, but also of periosteum, of blood-vessels and nerves; more highly developed bones, of marrow and articular cartilage; in other words they constitute a complete organ. But even in this century observers in their researches paid no regard to bone as it exists in the living body or shortly after death; nay, first they *dried* it, and then, and not till then, they examined it. By this method the problem of the formation of bone-tissue (ossification) and that of the

formation of the bone-organ (osteogenesis) were treated as one.

Regarded in this way it is true that by osteogenesis bone originates from cartilage, for *young* bone is entirely formed out of cartilage, but in the later growth we find ossification with periosteum for basis, and at last formation of marrow (medullification) takes place.

How is the marrow formed? As long as men continued to examine dried bone, they looked on marrow simply as a jelly, which filled the bone cavity and medullary canals. Now we know that it is an independent tissue. But of what sort? We recognise three chief forms, red, yellow, and gelatinous marrow, but there is no doubt that these forms are only different conditions under which marrow may present itself. Thus, marrow is a tissue which may occur in *changing* characters, a marked example of Metaplasia.

Not only is marrow, however, subject to the law of Metaplasia; it originates by Metaplasia. The greater portion of this tissue, as it exists in the bones of the adult, was once bone-tissue. The formation of marrow arises by bone-tissue losing its lime-salts, and by bone cells being transformed into marrow cells. The medullary spaces in the midst of bone-tissue are formed in this way. If, owing to morbid conditions, this process goes on to a greater extent than normal, we have *osteoporosis*, and if the transformation proceeds yet further we speak of *osteomalakia*. But marrow may also be formed from cartilage, though this is seldom the case. The Metaplasia, however, which takes place from cartilage to fat is not as a rule direct; for red marrow (vascular and cellular marrow) is first formed, which, after a variable interval, is converted into yellow marrow (adipose tissue).

I may perhaps remark that the hesitation of many observers, as to the extent to which metaplastic processes take place in the bones, appears to me excessive. From this there have arisen the most extraordinary contradictions. All are agreed that in ordinary osteogenesis, the medulla, which has originated from cartilage, also produces the so-called osteoblasts, in other words the ostificers. On the other hand doubts have been raised anew, as to how far, in cases of fracture, the *callus internus* is produced by the ossification of marrow—whether the filling of the medullary canals with compact bone-tissue by osteosclerosis is due to the medulla. In my opinion, in both respects one goes too far. If you examine a transverse section of the epiphyseal cartilage in normal osteogenesis, you will definitely recognise that direct ossification takes place from the cartilage tissue as a starting point, in the same manner as in the diaphysis you see the formation take place from the periosteum; equally obvious in sclerosis is the successive formation of bone from marrow. The only defect in the demonstration is that you cannot see it all take place under the microscope. The investigators who in every organic process demand before all things vivisectional demonstration, appear to me to misapprehend the value of experiment in such cases.

We may pronounce without hesitation that bone-tissue in its widest acceptation is subject to metaplastic transformation, and that a considerable number of the processes in bone-formation and also in various morbid conditions depend on the fact that at certain times the tissue concerned assumes another character. Nevertheless the impossibility of explaining from an entirely nutritive standpoint the changes which go on inside the bone and metaplastic processes, is most evident from the series of investigations on the architecture of cancellous bone-tissue which have been made during the last decade, and which have taught us to what an extent the number and direction of the lamellæ is determined by the weight which is made to rest on the bone and the direction in which the latter meets it.

If, however, we are not satisfied with determining the final result of these processes, but must enquire how such architecture came about, it is evident that the cause is not a new formation of osseous lamellæ, but rather a new formation of marrow, which in certain directions dissolves by Metaplasia the existing bone-tissue, while in other directions it spares it. The process, indeed, is more intricate than I have described, but it is in its principal features rather a formation of marrow than a formation of bone. I am afraid, however, to tire you with a further exposition of it. This introduction must suffice to draw your attention to the metaplastic character presented by many of the processes which go on in bone. Bones form indeed a very happily chosen instance of Metaplasia, for they present a whole series of tissues for consideration—bone, cartilage, periosteum marrow in its three varieties—which can be mutually transformed one into another. These transformations have not, however, always the same significance. The secondary formation of marrow from compact bone-tissue represents the conclusion of the normal formation of bone, and is hence a progressive process. In Osteomalakia, in which the formation of marrow passes beyond the normal degree, the process must be regarded as a retrogressive one.

Next to bone there is no tissue which is so prone to metaplastic transformation as adipose tissue. Its metaplasia, however, is more uniform. Most frequently it is converted into mucous tissue. Thus in cases of injury to the spinal cord, whole layers of fat have been found changed into a jelly-like mass, which some have called colloid degeneration. In this as in other cases there occurs a metaplasia from adipose tissue into mucous tissue, in which the fat disappears from the cells, and the latter do not break down but are converted into mucous tissue. It is a retrogressive movement, in that the fat returns to the tissue like that from which it was formed in the embryo, and like that in which it existed after birth.

This transformation is by no means simple atrophy, such as occurs in general emaciation, in which the fat disappears, but is not converted into large masses of mucous tissue. The formation of it is greatly favoured in parts where, coincidently with the disappearance of fat, there is a solid environment to prevent the shrinking of the contained matter; for instance, in the interior of the bones, in the spinal canal, &c.

When there is partial hyperplasia, we may obtain a fatty tumour (Lipoma.) Lipomata sometimes contain parts which are markedly gelatinous, sometimes they are gelatinous throughout, although formed from adipose tissue. I have shown that in such cases they consist of

mucous tissue and have termed them myxomata. But as mucous tissue is normally a tissue which only occurs in the embryo, one may in a certain sense call a myxoma fœtal fat. Most of the mucous tissue in the fœtus is transformed by Metaplasia into fat; but besides this original primitive mucous tissue, there also exists a mucous tissue formed by Metaplasia, and from this myxomata may be produced by hyperplasia.

Similar experiences are of frequent occurrence in the case of tumours. Thus we know that there are numerous nævi, *i.e.*, congenital abnormalities of the skin, which later on become the starting point for the growth of tumours, either sarcoma or cancer; and these malignant neoplasms may be said in such a case to originate from a fœtal tissue. It is not, however, certain that all nævi are so-called "mother's marks," *i.e.*, congenital formations.

Chondromata, and especially the so-called enchondroma, often start from pieces of cartilage which have been displaced in the course of bone formation. Nevertheless these islets of cartilage, which simply remain lying unchanged in the cancellous tissue at the extremity of a bone, and even in the medullary cavities, are not congenital formations; on the contrary, they do not appear until from the first to the third year of life, and sometimes even later, and they must therefore be regarded as acquired formations.

Professor Cohnheim has applied this and analogous discoveries as the basis of a theory of the development of tumours, which differs from my own teaching in its exclusive character. He has assumed that all tumours grow from the remains of embryonic life, which have lain in the body without undergoing further change. But I think I may venture to say that we have not been furnished with sufficient proofs of such a universal origin. On the contrary, I think it must be admitted that many tumours date from changes which have not arisen until much later on in life.

There is one difficulty which has not hitherto been solved, viz., the fact that the examples of Metaplasia which we know of take place essentially between tissues which we must regard as akin or nearly related to each other, especially such as are richly provided with intercellular substance. The epithelial formations are also subject to Metaplasia, as, for instance, in the transformation of cylindrical epithelium into squamous epithelium, which, as I showed long ago, occurs in the decidua. There is little doubt that even the blood-forming tissues, *e.g.*, the red marrow of the bones, are formed at a later period of life.

It is now contended, however, that dissimilar tissue, tissue of another category, may also originate by Metaplasia; for instance, that in the liver connective tissue can be formed from epithelial tissue. I have not myself seen examples of this, nor, indeed, of the reverse process, Metaplasia from connective tissue to epithelium. There are two objections to such a view. The first is purely speculative, and consists in the fact that in the embryo the epithelial and connective tissues are formed from different layers. I cannot see, however, that this objection has much significance in the case of phenomena, the relations of which must be decided by experience. The other objection proceeds from investigators who think they have observed that epithelium only originates from epithelium. These observations, however, have not been placed beyond the possibility of doubt.

We now come to a question which is regarded by many as of the last importance—the question how far wandering cells, especially white blood corpuscles, may form the starting point of a new formation. Some believe that they possess an absolute metaplastic power, and can give rise to any and every form of tissue. It must, however, be admitted that there are limits even to the metaplasia of white blood corpuscles, which, by the way, are not the only cells that are able to change their position. Certainly, as far as observation goes, one must restrict one's ideas as to the power of the white blood corpuscle to form the starting point of new formations.

To return, I am convinced that even tumours of epithelial structure may arise by Metaplasia from connective tissue, though of course I have not been able to see the process take place under my eyes. The pathological anatomist can only infer Metaplasia from seeing different tissues encamped side by side, no experimental method of solving the problem having yet been discovered.

With these observations I must be content to leave the difficult question as to the possibility of a Metaplasia between dissimilar tissues, without being able to give any more definite answer. At present we can scarcely put forward a satisfactory solution of it. But it will be of considerable advantage if I have succeeded in bringing the question before a large circle, and laid the foundation for the consideration of many processes.

THE NATURAL PRODUCTION OF MALARIA AND THE MEANS OF MAKING MALARIAL COUNTRIES HEALTHIER.[1]

By PROFESSOR TOMMASI CRUDELI.

Gentlemen,—Before entering upon my subject, I must crave the indulgence of those of my colleagues whose language I have borrowed for any Italicisms that I may use, as well as for the foreign accent which must strike their ears more or less disagreeably. Desiring to respond as well as lay in my power to the invitation with which I have been honoured to discuss the hygienic questions relating to malaria, I have chosen the French language as being the one in which, apart from my mother tongue, I could express myself with the greatest ease and precision.

I shall be pardoned also, I hope, for having employed the terms "malaria" and "malarial districts" in place of the more commonly used expressions "paludal miasm" (*miasme paludéen*) and "marshy regions" (*contrées marécageuses*). The substitution is not a happy one from a literary point of view, but I have made it deliberately and for the following reason: The idea that intermittent and pernicious fevers are engendered by putrid emanations from swamps and

[1] An Address delivered at the Eighth Session of the International Medical Congress, Copenhagen, August 12, 1884. Reprinted from *The Medical Record*, New York.

marshes is one of those semi-scientific assumptions which have contributed most to lead astray the investigations of scientists and the work of public administrations. This idea, so widespread and so well established by the traditions of the school, is radically false. The specific ferment which engenders those fevers by its accumulation in the atmosphere which we breathe is not exclusively of paludal origin, and still less is it a product of putrefaction. Indeed, in every region of the globe between the two arctic circles there are swamps and marshes, steeping-tanks of hemp and flax, large deltas where salt and fresh waters mix, and yet there is no malaria there, although putrid decomposition is on every side. On the other hand, in the same parts of the globe there are places which are not and never were marshy, and in which there is not the least trace of putrefaction, but which, nevertheless, produce malaria in abundance. I reject, therefore, wholly the paludal assumption, and in order to express this view in the title of my paper, have been forced to employ terms which to my hearers may sound like Italicisms.

The Italians generally have not this paludal notion, for experience taught them long ago that malaria is produced nearly everywhere ; in marshy districts as well as in those which might almost be called arid ; in a volcanic soil as well as in the deposits of the miocene and pliocene periods and the ancient and modern alluvia ; in a soil rich in organic matters as well as in one containing almost none ; in the plains as well as on the hills or mountains. The word malaria (bad air), which it is the sad privilege of Italy to have lent to all languages to express the cause of intermittent and pernicious fevers, represents then, among the majority of our rural populations, the idea of an agent which may infect any sort of country, whatever may be its hydraulic and topographical conditions and whatever may be its geological formation. This word, therefore, is the one best suited to designate this specific ferment in question, and I have on this account employed it and its adjectival derivatives in order not to resuscitate the idea of the exclusively paludal origin of the morbific agent.

I shall not tarry long to speak of the nature of this ferment, for the studies bearing upon that point, although far advanced, are not yet completed. I may remark, however, that the idea that the ferment is formed of living organisms is a very old one, and has not arisen suddenly because of the modern theories of the parasitic nature of disease. From the time of Varrar (who believed that malaria was made up of invisible mites suspended in the atmosphere) to our own day this theory has been several times advanced by hygienists. Independently of the general considerations which led Rasori, and later Henle, to formulate the doctrine of the *contagium vivum* of infection (long before the progress of microscopical science had revealed the existence of living ferments), there were peculiar circumstances as regards malaria which should have impelled minds to look in that direction, even in times long past.

Some of these circumstances are of a nature to strike every serious observer, and deserve a few moments' attention. How could one maintain, for example, that this ferment is a product of chemical reactions taking place in the ground, when it is seen to remain constantly the same whatever may be the composition of the soil from which it emanates? As long as the paludal theory held sway the chemical interpretation of this identity of the product in every latitude was easy. Rica does not hesitate to admit that when a swampy tract is heated by the sun's rays to the necessary point for the putrid decomposition of the organic matters contained in it, the "chemical ferment," or rather the "mephitic gases," to which is attributed the morbific action, are developed, whatever may be the distance from the equator at which this marshy region lies. But since it has been ascertained that malaria is produced in soils of the most varied chemical composition, *the persistent identity of this product* has become chemically inexplicable ; while it is however readily conceivable, if one admits that malaria is an organized ferment which easily finds the necessary conditions for its life and multiplication in the most varied soils, as is the case with millions of other organisms vastly superior to the rudimentary vegetables which constitute the living ferments.

The same thing may be said of *the progressive intensity of the morbific production in abandoned malarious districts.* This fact has been historically proven in several parts of the earth, and especially in Italy. A large number of Grecian, Etruscan, and Latin cities, even Rome itself, sprang up in malarious territories and attained a high state of prosperity. First among the reasons for this success must be placed the works undertaken with a view of rendering these places more salubrious, which lessened the evil production, *but almost never extinguished it completely.* After the abandonment of these localities, the production of malaria recommenced in a degree which went on increasing from age to age, and which has rendered some of these places actually uninhabitable. This was seen, in the time of the ancient Romans, in Etruria, when it was conquered and laid waste, and in several parts of Magna Græcia, and of Sicily. From the fall of Rome even to the present day, this phenomenon has been manifested in a very evident manner in the Roman Campagna, in certain parts of which, even up to the time of the Renaissance, it was possible to maintain pleasure houses, but which are now uninhabitable during the hot season. In many cases the physical conditions of the soil have undergone no appreciable change during centuries, so that it is impossible to attribute so enormous an augmentation of malaria to an increase in its annual production, itself increased by a progressive alteration of the chemical composition of the soil. But if, on the contrary, it be admitted that malaria is caused by a living organism whose successive generations accumulate in the soil, the interpretation of this fact becomes very simple.

There are, finally, *peculiarities in the local charging of the atmosphere with malaria* which can be explained only in this manner. If the malarial miasm were composed of gaseous bodies emanating from the soil, or rather of chemical ferments formed beneath the ground and raised into the air by gases or watery vapour the charging of the atmosphere with the specific poison ought to arrive at its maximum during the hottest part of the day, when the ground is heated the most by the sun's rays and when the evaporation of water and all chemical actions attain their maximum intensity. But this is very different from what actually occurs. The local charging of the atmosphere is always less strong during the meridian hours than at the beginning and the end of the day, that is to say, after the rising, and especially after the setting of the sun. Now it is precisely at these hours that the difference between the temperature of the lower layers of the atmosphere and that of the surface of the ground is the greatest, and that the ascending currents of air starting from the ground are the strongest. If malaria consists of solid particles contained in the soil, one may readily understand how their elevation *en masse* into the atmosphere should take place especially at these two periods of the day.

All these facts, which can be easily verified if the subject of malaria be studied on the spot and without any preconceived notions, explain the tendency which has always been manifested to attribute this specific

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poisoning of the air to a living organism which is multiplied in the soil; and they also explain the ardour with which hygienists have applied themselves to the production of the scientific proof.

Unfortunately the investigations undertaken for this end have for a long time been fruitless, for the preconceived paludal theory has led investigators to occupy themselves exclusively with the inferior organisms inhabiting marshes. Among these organisms they studied especially the *hyphomycetes*, which had already acquired so great an importance in dermatology; and their entire attention was concentrated upon the aquatic algæ, without even taking the precaution to determine whether the varieties which they thought to be malarial were found in all malarious swamps, or whether they were capable of living within the human organism. It has thus happened that each observer has indicated as the cause of malaria a different variety of alga, whichever he found to be most abundant in the swampy ground that he had to examine. Thus Salisbury has indicated the *palmella gemiasma*, which is found with us in places perfectly free from malaria, while it is often wanting in malarious marshes in the centre of Italy; Balestra, a species of alga which is as yet indeterminate; Bargellini, the *palmoglœa micrococca;* Safford and Bartlett, the *hydrogastrum granulatum;* and Archer, the *chitonoblastus œruginosus*. There is not a single one of these species the parasitic nature of which has been demonstrated; and as regards the two last named varieties, it can be positively denied that they are capable of producing a general infection, for the diameter of their spores and filaments is greater than that of the capillary blood-vessels.

It was only in 1879 that Klebs and myself, after having been thoroughly freed, by a long series of preparatory studies, from the unfortunate paludal idea, undertook together some investigations in malarious districts of the most varied character, marshy and not marshy. We employed the system of fractional cultivation, making experiments on animals with the final products thus obtained. We felt ourselves justified in recognizing the malarial ferment in the *schizomycete bacillus*. The numerous researches made subsequently by us, and by many other observers, in the soil and in the air of several malarious localities, as well as in the blood and in the organs of men and animals specifically infected, have put it henceforth almost beyond doubt that we really have to do with a schizomycete. Very recently, MM. Marchiafava and Celli have succeeded in demonstrating that the germs of this schizomycete attack directly the red blood-globules, and destroy them, causing them to undergo a series of very characteristic changes which admit of easy verification, and which render certain the existence of a malarial infection.

Several observations made recently in Rome tend to demonstrate that the schizomycete of malaria does not always assume the complete bacillary form described by Klebs and myself; but this morphological question possesses no further interest for the hygienist. For him the essential thing is to know that he has to deal with a living ferment which can flourish in soils of very varied composition, and without the presence of which neither marshes nor stagnant pools of water are capable of producing malaria.

We must not think, however, that all earth containing this ferment is capable of poisoning the superjacent atmosphere. Popular experience, certain modern scientific investigation, and the facts which one can often verify when the soil, which was malarious in ancient times and which has since ceased to be so, is turned up to a great depth, all agree in proving that the ground remains inoffensive as long as it is not placed in certain conditions indispensable for the multiplication of this specific ferment. Up to this point the organism lives, so to speak, in an inert state, and may remain so during centuries without losing any of its deleterious power. There is nothing in this fact that ought to surprise us, since we know that the life and the power of evolution belonging to the seeds of plants of a much higher order than these vegetable organisms constituting ferments, may remain latent for centuries, and may then revive at once when these grains are placed in the conditions suitable for their germination.

Among the conditions favourable to the multiplication of the malarial ferment contained in the soil, and to its dispersion through the superjacent atmosphere, there are three which are absolutely essential, and the concurrence of which is indispensable for the production of bad air (malaria). First, a temperature which does not fall below 20° C. (67·5° F.); next a very moderate degree of permanent humidity of the soil; and finally, the direct action of the oxygen of the air upon the strata of earth which contain the ferment. If a single one of these three conditions be wanting, the development of malaria becomes impossible. This is a point of prime importance in the natural history of malaria, and it gives us the key to most of the methods of sanitary improvement attempted by man.

Let us see first what can be done in this direction without the labour of man. For Nature herself makes localities salubrious by *suspending* for a greater or less time the production of malaria. It is thus that winter brings about in every country a freedom from malaria which is *purely thermic*, for it is due simply and entirely to a sinking of the temperature below the required minimum. Indeed, if the temperature in winter rises above this minimum, there are often sudden outbreaks of malaria. Sometimes during very warm and dry summers, the heat extracts all the humidity from the malarious soil, and thus procures for us a freedom from the disease, which is *purely hydraulic*. This may continue for a long time (as happened in the Roman Campagna during the years 1881 and 1882), but may also be completely destroyed by a single shower. Nature also sometimes renders a district healthy in a manner *purely atmospheric*, by covering a malarious soil with earth which does not contain the malarial ferment, or with a matting formed of earth and the roots of grasses growing closely together in a natural meadow.

In the attempts at purification by suspending the malarial action, which have been devised by man, the same thing has been done; that is to say, it has been sought to eliminate at least one of the three conditions essential to the development of the specific ferment contained in the infected soil. Naturally, they have not thought of bringing about a thermic purification, such as Nature produces in winter, because of the impossibility of moderating the action of the sun; but they have tried from all time to procure hydraulic or atmospheric purifications, and sometimes to combine these together in a very happy way.

The hydraulic systems are very numerous, for the problem which is presented, namely, that of depriving the ground of its humidity during the hot season, necessitates different solutions according to the nature and the bearing of the soil. Sometimes this is done by digging open or closing ditches intended to draw away large bodies of water. At other times a system of drainage is established, by means of which the water is drawn out of the earth, and its level is depressed, so that the upper malarial strata, exposed to the direct action of the air, are deprived of moisture during the hot season. This system of drainage is not a modern invention; the Italian monks understood it as well as, and even better than, we do. In deep and loose soils they used sometimes, just as we do now, porous clay pipes; but when

the subsoil was formed of compact and nearly impermeable matters, they employed a system of drainage, the extent and grandeur of which astonishes us. It is that of drainage by cavities, applied by the Etruscans, Latins, and Volsci to all the Roman hills formed of volcanic tufa, the tradition of which I have found still preserved in some countries of the Abruzzi.

We may sometimes establish a double drainage, from below and from above ; that is to say, drain the subsoil, and at the same time increase the evaporation of water from the surface of the ground. It is well known that clearing off the forests of malarious countries has often proved an excellent means of making lands salubrious which were before too damp ; for, by removing every obstacle to the direct action of the sun's rays upon the ground, we cause an increase of evaporation from its surface, and may thus be enabled to exhaust the superficial strata completely of their water during the hot season. In very moist lands which lend themselves readily to deep drainage, the combination of the latter with a clearing of the surface has, in almost every quarter of the globe, rendered possible a very widespread and sometimes quite lasting freedom from malaria. But, although a nearly universal experience proclaims this fact, there is a school which, following in the footsteps of Lancisi, maintains the contrary opinion, that it is necessary to preserve the forests in malarious districts, and even to increase their extent, since the trees filter the infected atmosphere and arrest the malaria in their foliage. This strange theory was formulated by Lancisi in 1714, on the occasion of the proposed clearing of a forest belonging to the Caetani family, and lying between the Pontine Marshes and the district of Cistema. Lancisi was completely imbued with the paludal notion, and consequently believed that the very severe malaria of Cistema was brought by the winds from the coast marshes, instead of being produced in the soil surrounding the district, which was then covered by this forest. He believed then that the forest acted as a protective rampart, and he prevented its being cut down. But towards the middle of the present century, the Caetani had the woods cleared off from the entire belt of land surrounding Cistema. Twenty years later I was able to show that Cistema had gained greatly in salubrity. I published my observation in 1879, and, naturally, was taken to task rather sharply in the name of the sacred tradition. Happily these recriminations led our Minister of Agriculture to have the question studied by a special commission. This commission, after a conscientious examination, extending over three years, of all the malarious localities in the province of Rome, has just published its report,[2] the conclusions of which are entirely in accord with the facts of universal experience. They were not able to verify a single fact in support of Lancisi's theory, while they found many of the same nature as that of Cistema, and which have resulted in overturning the theory entirely.

It has also been thought possible to practise drainage from above by means of plantations of certain trees which would draw considerable moisture from the earth, a method which might really be serviceable in some malarious districts. But in accordance with the idea that malaria is a product of paludal decomposition, the trees selected have almost always been the *eucalyptus*. It has been maintained that trees of so rapid a growth ought to drain the soil very actively, and also that the aroma of their foliage ought to destroy the miasmatic emanations. I have hitherto been unable to verify a single instance of the destruction of malaria by eucalyptus plantations, but I do not consider myself justified in denying the facts which have been stated by others. There is nothing to oppose the admission that these plantations, when properly made, may sometimes have been of great utility. I maintain frankly, however, that they have not always been so, and that it is necessary to guard against the exaggerations into which some have allowed themselves to fall in recent times. Such exaggerations might have been avoided if, instead of talking about these plantations on the basis of a theoretical assumption, the results only had been studied in places where the eucalyptus abounds. It would then have been known that even in the southern hemisphere, the original home of the eucalyptus, there are eucalyptus forests which are very malarious. This fact has been demonstrated by Mr. Liversige, professor in the University of Sydney, Australia. Among us, also, although everybody was convinced by the statements of the press that the locality of the Tre Fontane near Rome, had been freed from malaria by means of the eucalyptus, people were disagreeably surprised by an outbreak of very grave fever occurring throughout the whole of this colony in 1882, a year in which all the rest of the Roman Campagna enjoyed an exceptional salubrity. If, alongside of these hygienic uncertainties, we place the agricultural uncertainties, we must conclude that it is necessary to contend strongly against this fanatical prejudice in favour of the eucalyptus-tree. These plants are, in fact, very capricious in their growth. In full vegetation, during the winter in our climate, they are often killed instantly by a sharp winter frost, by damp cold, by the frosts of spring, or by other causes which the botanists have not yet been able to determine. At other times, if the winters are very mild, these plants grow too rapidly in height, and then are broken short off by moderately strong winds. It should further be mentioned that these plantations are sometimes very expensive. In fact, if the earth contains too much water, it must be drained under penalty of seeing the roots of the eucalyptus rot. Then, again, if the subsoil is compact, it is necessary to dig deep trenches in order to give room to the long roots of these trees, and often indeed these trenches must also be drained, as is done for olive-trees. The conclusion evidently is that it is better to confine ourselves to hydraulic methods of promoting the healthfulness of a locality, the immediate effects of which are less uncertain. And then, when the local conditions are such as to make it desirable to try the effects of plants possessed of strongly absorbing powers, it is better to choose them from among the flora of our own hemisphere. This is more sure, and will cost the less.

Simple hydraulic methods of purification, even the most perfect, do not, however, produce permanent hygienic effects, since the moisture necessary for the multiplication of the malaria in the soil is so slight that these effects may be compromised by anything whatever, that is capable of restoring a moderate degree of humidity to the ground during the hot season. It has often been thought that a suspension of malarial production would be better assured by suppressing at the same time the humidity of the soil and the direct action of the oxygen of the air upon the superficial strata of earth which contain the ferment. This has been successfully accomplished by the system of overlaying (*comblées*). This consists in covering the infected soil by thick layers of uninfected earth, carried there either by the muddy waters of rivers, or by the hand of man. At the same time the steady drainage of the surface and underground water is provided for. Last year, I advised our Minister of War to undertake in another form an hydraulico-atmospheric purification of the district of the Janiculum surrounding the Salviati palace on the via della Longara, by draining the soil carefully, and covering with a layer of very close turf all the parts of the surface which could not be macadamized. It would seem as

[2] Della influenza dei boshi sulla malaria dominante nella regiona marittima della provincia di Roma. Annali di Agricoltura, No. 77, 1884. Roma : Eredi Botta.

if this system had been rather successful, since there has not been this year a single case of fever in the *personnel* of the new military college, established in the Salviati palace ; while in the Corsimi palace, which is situated on the same side of the via della Longara, but which looks out upon that part of the Janiculum which is still uncovered, there have been some fatal cases of fever.

Furthermore, we have had in Rome, during the past few years, some very evident proofs of the efficacy of atmospheric methods of purification. I will confine myself to the relation here only of the most striking instance, one which has been furnished us in the building up of new quarters of the city. There was much discussion at first as to whether the improvements should be undertaken in the parts where they now are or in the valley of the Tiber, for the uncovered lands of the Esquiline and of the Quirinal were malarious, and, as nearly everybody then thought that the malaria of Rome was carried into the city from the coast marshes, it was supposed that this state of things was irremediable. We opposed to this view the fact of the salubrity of the Viminal, which is situated between the Esquiline and the Quirinal, and which ought to be as unhealthy as the two other hills were the malaria of the latter imported into the city instead of being indigenous. Believing it to be indigenous, we hoped that by shielding the surface of these hills from the direct action of the air (by building houses and paving the streets), the malaria would cease to be produced there. That is precisely what has happened, for the new quarters are very healthy. But the malaria is only held in abeyance, and is not definitely overcome ; for if an extensive excavation is made in these hills, and the contact of the air with the malarious soil is thus re-established, during a hot and damp season, the production of malaria commences anew. A complete atmospheric purification is nevertheless the most stable of all the methods of obtaining a suspension of malarial production, but, unfortunately, its realization is very limited, for it is restricted to inhabited localities and to sodden surfaces.

The ideal method of ensuring freedom from malaria should be to obtain a permanent immunity, that is, to be able to modify the composition of the infected soil in such a way as to make it sterile as regards malaria, without taking from it the power of furnishing products useful for the social economy. But all the elements indispensable for obtaining such a result fail us utterly just here. We do not yet know what ought to be, in general terms, the composition of a soil incapable of producing malaria, yet retaining those properties which are suitable for vegetation. When we have arrived at this first stage, there will still be a long road to travel ; and the most difficult part will be to discover a practical means of imparting this salutary composition to all the numerous varieties of malarious soils.

Scientifically, then, in the present state of our knowledge, we are unable to affirm anything on this point. Practically, we are not much further advanced. It is very probable that the combination of hydraulic purification with a forced cultivation of the soil has sometimes determined changes in its composition by which it has been rendered sterile as regards malaria. If that has happened, it has happened by chance, and we are unable to reproduce the result at will ; for we have not all the data which might enable us to understand how it has come about. Most of the purifications obtained in ancient times, by means of forced cultivation, continued during centuries, have not been definite at all, but the production of malaria has been simply suspended. Hardly was the regular cultivation of the fields interrupted than the production of malaria recommenced. Among the numerous examples that I might cite in this connection, I will limit myself to that of the Roman Campagna. This seemed to have been made permanently healthy under the Antonii, but after the fall of the empire it began again to produce malaria, as if the forced cultivation through so many centuries had never existed.

One might, strictly speaking, be content with such a result, and boldly undertake forced cultivation of all malarious districts, without stopping to ascertain whether the freedom from malaria so obtained would be definite, or whether the production of the poison were only suspended. Unfortunately, one is never sure of arriving at such a result, and no one can say *à priori* whether the forced cultivation of a given malarious tract will render it healthful. It must always ber emembered that the first effect of forced cultivation, which requires an overturning of the soil by means of the plough, the spade, and the pick, is an unfortunate one, from a hygienic point of view, whenever we have to deal with a malarious country. Experience has shown, especially in Italy and America, that this overturning of the soil almost invariably increases the local production of malaria. And this can be readily understood, since the ploughing and the digging in a soil containing the specific ferment increases the extent of surface of the ground in immediate contact with the atmosphere. This first mischievous effect is often gradually weakened by the continued cultivation, and may end by disappearing. At other times, on the contrary, it persists obstinately, and one is often forced in desperation to the resolve to level the ground again and to varnish it, so to speak, with thick sowing of grass, if one wishes to spend or weaken the malarial production.

However, when the local conditions will permit, it is well to try whether, by means of forced cultivation of the soil, it may not be possible to increase the efficacy of the hydraulic method of procuring immunity from malaria, or of the hydraulico-atmospheric method of "overlaying." The moment that it is known that this cultivation has frequently been advantageous, there comes forward a crowd of social reasons which induce us to attempt it, even though we are persuaded that we are about to engage in a game of chance. But to dare to attempt it is not all that is necessary, we need also the possibility of so doing, and just here we find ourselves in a vicious circle from which it is not easy to emerge. Forced cultivation cannot be accomplished without the presence of agriculturists in the region during the entire year ; and the agriculturists cannot remain in the region during the fever season, for they run thereby too great a risk. For the solution of this question there is but one means : *try to increase the power of resistance of the human organism to the attacks of the malaria.* It is to a search after the means of accomplishing this result that I have devoted myself during the past few years.

There is nothing to hope for, as regards malaria, in acclimatization. *Individual acclimatization* is, and always has been, impossible. The malarial infection is not one of those a first attack of which confers immunity from other attacks. It is, on the contrary, a progressive infection, the duration of which is indeterminate, and which is of such a nature that a single attack may suffice to ruin the constitution for life. Collective or *racial acclimatization* certainly existed in the past, at a time when specific remedies for pernicious malaria were unknown ; and even later, when the employment of these remedies was very limited. The acclimatization was due to a natural selection made by the malaria upon successive generations, from which it took away, almost without opposition, all those who possessed but a feeble individual power of resistance to the specific poison, while it spared those who possessed this power of resistance in an extraordinary degree. The first

were, according to the Grecian myth, *the human victims destined to appease the monster, or demon, who opposed the violation of the territory over which he had up to that time exercised an absolute sovereignty.* The second became the founders of the race, and through them, from generation to generation, the collective power of resistance to the malaria was progressively increased. In our own days a like selection may take place among barbarous races, as it does among the cattle and the horses in a malarious region, but it has become an impossibility among civilized nations. By means of the specific remedies which we possess, the use of which is now so general, the lives of a large number of individuals whose resisting powers are very feeble are preserved; and these individuals beget others whose power of resistance to the action of the specific poison is still more feeble. This results, after a number of generations, in the physical degradation of that part of the human race which inhabits malarious countries.

We cannot, therefore, in the future, count upon the assistance of external natural forces to increase the power of resistance of human society against the assaults of malaria. Such an object can be obtained only by artificial means. It has been sought to attain this end by the daily administration of the salts of quinine, of the salicylates, and of the tincture of eucalyptus, each and every one tried in turn. But the salts of quinine are dear, exercise a prompt, though transient, anti-malarial action, and, when administered for a long time, disturb rather seriously the functions of the digestive and nervous systems. The salicylates, when well prepared, are rather dear, and there is as yet no proof that they possess prophylactic powers against malaria. The alcoholic tincture of eucalyptus is useful in malarious regions (as are all the alcohols, beginning with wine) in quickening the circulation of the blood; may it, perhaps, also act as a preservative against light attacks of malaria? Possibly. But it is very certain that it possesses no efficacy in places where malaria is severe. It will suffice to prove this to recall the two epidemics of fever which afflicted the colony of the Tre Fontane, near Rome, in 1880 and 1882. Everybody was attacked, and there were several cases of pernicious fever, although a good preparation of eucalyptus is manufactured in the place and is distributed largely to the colonists during the dangerous season of the year.

Having several times had occasion to observe, in malarious regions, that when recourse was had to arsenic in order to subdue fevers, over which quinine had exerted almost no effect, relapses occurred but rarely; and having been able to satisfy myself that the arsenical treatment sometimes procured a permanent immunity in individuals who are subject to frequent attacks of malaria, I began in 1880 to employ arsenic (arsenious acid) as a prophylactic in certain portions of the Roman Campagna. This remedy was indicated, in an experiment of this sort, not only by reason of its durable anti-malarial effects, but also by its low price, by the beneficial influence which it exerts upon all the nutritive functions, and because it has no disagreeable taste and may therefore be given to everybody, even to children. My first trials in 1880 were rather encouraging, and I felt myself justified in engaging some proprietors and the association of our southern railroads to repeat the experiment on a large scale the following year, recommending them, however, to use arsenic in a solid form as offering an easy and certain dosage. This extensive prophylactic experiment began in 1881, and acquired constantly increasing proportions in 1882 and 1883, which have become still larger this year. An experiment of this kind is not easy to conduct in the beginning. The name, arsenic, frightens not only those whom we desire to submit to its action, but also the physicians, whose exaggerated fears have sometimes rendered the experiments of no avail, since they were conducted too timidly and the doses of arsenic employed were altogether insufficient. But some intelligent men, especially M. Ricchi, physician-in-chief to the southern railroads, were able speedily to triumph over these obstacles, and to place the experiment on a firm basis. The general testimony of all the facts which they have collected tends really to prove that, when the administration of arsenic is begun some weeks before the presumed season for the appearance of the fever, and when it is continued regularly throughout the whole of this season, the power of resistance of the human organism to malaria is increased. Many individuals gained thereby a complete immunity, others a partial immunity, that is to say, they were sometimes attacked by the fever, but it never, even in very malarious districts, assumed a pernicious form, and was easily subdued by very moderate doses of quinine. Last year, for example, in the district of Borino, where the malaria is very severe, M. Ricchi experimented upon seventy-eight employés of the southern railroads, dividing them into two equal divisions, one of which received no prophylactic treatment, while the other was submitted to a systematic arsenical treatment. At the end of the fever season it was found that several employés among the first half had been attacked by fevers of a severe type; while thirty-six of those in the second division had enjoyed a complete immunity, the three others having been attacked, but so lightly that they cured themselves by quinine without seeking medical aid.

Facts of this sort are very encouraging, and the more so as the general health of those submitted to the prophylactic treatment was much improved. It was found almost invariably, upon the termination of the experiment, that there had been an increase in bodily weight and an amelioration of the anæmia which is so common in malarious districts. But, in order to arrive at such results, it is necessary to be at once bold and prudent. On the one hand it is necessary to graduate very carefully the daily dose, never exceeding at the commencement the dose of two milligrammes ($\frac{3}{100}$ grain) per diem for adults, and never giving the arsenic upon an empty stomach. On the other hand, it is necessary to gradually push the dose up to ten or twelve milligrammes ($\frac{15}{100}$ or $\frac{18}{100}$ grain) a day for adults, in districts where the malaria is very severe, giving the arsenic in such a way that there is never an accumulation of the drug in the stomach. Most of the experiments which have been undertaken this year are being conducted on this plan, and there is reason to hope that they will give satisfactory results.

We must not, however, rest here if we wish to attain promptly the end proposed, namely, that of planting colonies in malarious districts without exposing the colonists to grave danger. Even if we realise perfectly the hope which I conceived in 1880, and if we are enabled to prove that arsenic increases man's power of resistance to the assaults of malaria, we must not imagine that everything is accomplished. It will take a long time before the use of a preservative method of this kind becomes generalised, we have first to contend against the fear which nearly everyone experiences when arsenic is mentioned, and then there will also be difficulty in establishing everywhere a proper control over its administration. In every attempt at the colonisation of malarious regions it will be necessary to combat for a long time the diseases caused by malaria, and we must seek for a method of combating them by a means which is in the possession of everybody, and which shall not be dangerous to the general economy of the human organism. Those who do not know from actual experience the miseries of a malarious country, think only of combating the acute

forms of infection, which often place the patient in danger of death. But this danger, though great, is for the most part imaginary, provided that assistance be obtained in time. But that which desolates families, and which causes a physical degradation of the human race exposed to the attack of malaria, is the chronic poisoning, which undermines the springs of life and produces a slow but progressive anæmia. This infection often resists all human therapeutic measures, and is even aggravated by the use of quinine, which is given during the recurrent paroxysms of fever. Quinine is, when given for a long period of time, a true poison to the vaso-motor nerves. The question, then, is to replace quinine, and the alkaloids which possess an analogous physiological action, by an agent the efficacy of which against chronic malarial poisoning may be greater and the dangers of its employment less.

A happy chance has led Dr. Magliori to the discovery of an agent of this sort, which was traditionally in use by certain Italian families. It is an exceedingly simple thing—merely a decoction of lemon. It is prepared by cutting up one lemon, peel and all, into thin slices, which are then put into three glassfuls of water and the whole boiled down to one glassful. It is then strained through linen, squeezing the remains of the boiled lemon, and set aside for some hours to cool. The whole amount of the liquid is then taken fasting. It is well known that in Italy, Greece, and North Africa, they often use lemon juice, or a decoction of lemon seeds, as a remedy in malarial fevers of moderate intensity; and in Guadaloupe they use for the same purpose a decoction of the bark of the roots of the lemon tree. All these popular practices tend to show that the lemon tree produces a febrifuge substance, which resides in all parts of the plants, but which would seem to be most abundant in the fruit. In fact, among the popular remedies employed against malarial infection, that which I have just described is the most efficacious, for it can be employed with good effects in acute fevers. But it is especially advantageous in combating the chronic infection, which is rebellious to the action of quinine, and in removing or moderating its deplorable effects.

Hardly had I learned of this method of medication, when I hastened to induce some proprietors in the Roman Campagna to try it with their farm hands; and, after witnessing the good results there, I endeavoured to persuade practitioners to make a trial of the same treatment. I was ridiculed a little at first, for they thought it rather singular that a professor should be trying to popularise an old woman's remedy. In reply to that I answered that practical medicine would not have existed had it not known how to treasure up from age to age the facts of popular experience; and I ventured to remark that had the Countess de Chinchon waited until methodical researches had been made into the physiological action of cinchona bark, before popularising the remedy, the use of which she had learned from the semi-barbarous Peruvians, in all probability humanity would still, as regards malaria, be dependent upon the medication practised in the middle ages. Happily these arguments had the desired effect upon certain distinguished practitioners, some of whom, especially in Sicily and Tuscany, have already collected together a tolerably large number of very encouraging observations. One of them, Dr. Mascagni, of Avezzo, tried the remedy in his own person, and succeeded in promptly curing an obstinate malarial fever which had resisted the action of quinine.

Gentlemen, in dealing with malaria we ought always to hold popular experience in high esteem, for we owe much to it. We owe to it the fact that we have been liberated from the paludal idea, and, furthermore, that we have learned that it is often better, instead of trying to prevent the importation, for the most part imaginary, of malaria from distant marshes, to suppress its production in the soil under our feet or in that immediately surrounding us. We owe to it the knowledge, which we now have, that malaria rises up into the atmosphere only to a limited height, so that by placing ourselves a little above this limit in order to eliminate the possibility of the malaria being carried up to us by oblique atmospheric currents, we are enabled to breathe an air which does not contain this ferment, or which contains it only in insignificant amounts; thus one may even sleep in the open air during the night in very unhealthy districts without running any risks. The knowledge of this fact has led some peoples of Greece, and the inhabitants of the Pontine Marshes, to sleep in the open air on platforms raised on poles four or five metres (twelve to fifteen feet) in height. Some people in the Roman Campagna have built houses for themselves on the top of the ancient tombs, the walls of which are perpendicular; the American Indians fasten their hammocks as high up as possible to the trees of the malarious forests; and very recently the engineers of the Panama Railroad had little wooden huts built in the trees in order to procure safety against the terrible outbreak of malaria which occurred during the construction of that iron way. We owe, finally, to this popular experience the discovery of the specific action of quinine, and the consequent preservation of thousands and thousands of human lives. Why should we reject *à priori* and without investigation other useful data which it may yet present to our consideration? If we wish to make progress in this question of rendering malarious countries healthy, we must always hold before our eyes a double object: to find a means of prophylaxis which may be accessible to everybody; and at the same time, to find a means, equally within everybody's reach, to overcome chronic malarial poisoning and its evil consequences. Science is still too far behind to permit us to hope that we shall soon succeed in discovering this second means by purely scientific researches. We ought, therefore, to gather together with great care all the facts which point to the possibility of a solution of this problem, and if the measures to which these facts point seem to be incapable of doing harm, we ought to try them boldly, and not be restrained by a false idea of the dignity of science. The social importance of the problem is too great to allow of its solution being retarded by the fear that scientific men may be accused of having been outrun by the ignorant. True science has none of these puerile susceptibilities; on the contrary, it deems it an honour to be able to seize all the observations of fact, whoever may have been their first recorder, to put them to the crucial test of methodical experiment, and to convert them into a new stepping-stone on the march of human progress.

HYDRO- PYO- AND HÆMATO- SALPINX.

By LAWSON TAIT, F.R.C.S.

Miss E. L. came under my care in October, 1873. She was then 28 years of age, and had been a sufferer from the time menstruation began, at the age of 15. Her menstruation had been fairly regular, but had been always profuse, intensely painful, and was accompanied by the passage of shreds of membrane almost every month. At first she obtained relief when she passed the shreds, but at the time I saw her even when they did pass, relief was not obtained. The uterus then was hard, anteflexed and somewhat larger than normal, as the sound entered three inches. She informed me that for three years she had been from time to time under the care of Mr. Spencer Wells,

by whom a variety of treatment, by pessary and otherwise, had been employed, but only with the result that she became worse instead of better. She had an intercurrent leucorrhœal discharge, which was occasionally very profuse.

I regarded the case at the time as one of chronic endometritis, and I recommended that the uterus should be dilated and the mucous surface destroyed by chromic acid, and this treatment I carried out within the next week. For some considerable time after this she greatly improved, and she could get about in a way she had not been able to do for three years. She came back to me in October, 1874, as bad as ever, if not worse. The menstruation was now scanty, and only small fragments of skin were passed; but her pain during the period was intense, even inducing vomiting, and entirely preventing her from walking. The intercurrent leucorrhœa was very considerable, and therefore I tried intra-uterine applications of strong carbolic acid, with a long list of internal tonics for twelve months, and during that time she slowly improved so much as to be able to endure one of Mr. Spencer Wells' anteflexion pessaries. In October, 1875, the leucorrhœa had almost gone, her pains were very much relieved and she was able to get about for a fortnight in each month, but during the other fortnight she was very easily fatigued and pain was soon brought on by exercise.

She came to me again in April, 1876, after having had three very profuse periods in February, March, and April, but with less pain and more intercurrent leucorrhœa. I therefore resumed the carbolic acid treatment with relief to her throughout June, July, and September. In November, 1877, she again returned to me, telling me she had been fairly well until the previous May, when in June something seemed to go wrong again. Her periods became very profuse, lasting from ten to fourteen days, intensely painful, followed by a profuse yellow and very offensive discharge. The former treatment with some variation was resumed and carried on until December, 1879, but even then, although the treatment was to a certain extent successful, she was totally unable to walk more than a few hundred yards or to stand for more than a few minutes. I did not see her again till September, 1880, when I found that although she had been somewhat better in the spring she was worse in every way. For the previous four months she had been rarely free from menstrual flow for more than a few days at a time, and her last period had gone on for three weeks. Looking back at the experience of the previous seven years, during which I had done my best to relieve her without success, recognising the fact that her existence was a burden to herself, and a serious tax on her relatives, I advised the removal of her uterine appendages. My proposal was discussed at great length with some medical gentlemen who were concerned in her case more as friends than as responsible advisers, and also with a number of her relatives, and it was ultimately decided against. When this decision was announced to me, I declined to undertake any further responsibility in the case, and I asked her friends to place her under some other care.

What happened to her between that time and June, 1883, I do not know, and have never cared to inquire, but I have every reason to believe that many and able efforts were made to relieve her. But this I do know, that whatever was done was fruitless, for she came back to me at the latter date, a woman of 38, but looking more like 60, thin almost to emaciation, with a haggard, pinched face, hair almost white, constantly confined to the recumbent position and never free from pain. She asked me to resume the responsibility of her case and do with her as I thought best. On August 27th I performed abdominal section. I found the contents of the pelvis a good deal matted together, the uterus hard and somewhat above the normal size, both tubes occluded and densely adherent, that on the right side being distended by about two drachms of pus, and in the left a similar quantity of serum. The ovaries were small, cirrhotic, and densely adherent. The operation for the removal of the appendages was a very difficult one, but she made an extremely easy recovery and went home on September 27th. I saw her on the 8th of April last, looking very well, and she was able to walk a couple of miles. She had not had the slightest appearance of menstruation since the operation and had only slight occasional pains in the stumps. I have just had a letter from her (July 14th, 1884), from which I take the following sentences: "I am visiting my married sister, and it is delightful to feel well enough to enjoy the baby and go out to see friends. I often send a grateful thought to you, especially when I contrast my feelings with those I had last year at this time. Everybody says I have renewed my youth."

On looking back upon this case, my feeling of regret is strong that the operation I performed on her last year was not performed ten years before. From what I now know of similar cases I am perfectly satisfied the condition she was in when I first saw her would have absolutely justified the proceeding to which she had ultimately to submit. I cannot, of course, be certain that at that time she suffered from hydro- and pyo- salpinx, but I am certain she was the subject of conditions which led up to them—that she was then the victim of incurable chronic inflammation of the ovaries, and that in all probability what was done to her by Mr. Spencer Wells, by myself, and by others, had only for their effects permanent increase of the mischief even though temporary alleviation was obtained. This case forms, in fact, a typical example of a large class who are subjected to useless and torturing treatment for years without real benefit, and to whom removal of the uterine appendages comes as the only relief after years of distress and treatment at once expensive and unavailing. At the International Medical Congress, Mr. Spencer Wells said he had only seen one case which justified the operation to which this case was subjected, yet he had seen this case, and I expect very many quite similar.

A. H., aged 31, came under my care in December last. She had suffered for many years from irregular and profuse menstruation; sometimes her periods lasted as long as fourteen days. For three or four days before each period she suffered pain so intense as to induce vomiting and render her wholly unfit to follow her usual employment as a dressmaker. She informed me that she had been under the treatment of several institutions in Birmingham and two in London, one of these being Guy's Hospital. She had been repeatedly told that she had chronic inflammation of the womb and a falling backwards of the organ, and for this she had received treatment by pessaries at the hands of no less than seven different practitioners, but in spite of their united efforts she obtained no relief but in fact she grew steadily worse. On examination I found a tender mass running behind and on each side of the uterus precisely of the kind which I have myself on too many occasions mistaken for retroflexion and which I have seen mistaken by others in some dozens of instances. Pressure upon this mass at once induced a dull sickening pain, and the use of the sound revealed the fact that it was not the fundus of the uterus, but in all probability the chronically inflamed uterine appendages which constituted it. I advised her to submit to an abdominal section, but this she declined and she went away again to London. She came back to me in April, ready to submit to anything, and I operated

upon her on May 1st. I found both tubes occluded and distended with serum, and they, together with the ovaries, were firmly bound down behind the uterus. I removed both appendages. She made an easy recovery, and although she is not yet entirely free from pain her menstruation has been completely arrested.

M. J. H., aged 25, was sent to me by Mr. Holmes, of Derby. She had been married five years, had had one child and one miscarriage four years ago, at the sixth month ; after that miscarriage she had an illness which, from the history, was probably an attack of pelvic perimetritis, and she had never been well since. Her periods were very irregular, profuse, and intensely painful. A variety of treatments had been employed without giving her any relief. I could feel the distended tubes on each side of the uterus, and I advised their removal. The operation for this I performed on May 27th, and I found both tubes occluded, densely adherent, and distended with serum. Her recovery was an easy one, and on the 24th June she left the hospital.

M. W., aged 23, was sent to me by Dr. Cunningham. She had been married three-and-a-half years, had had a miscarriage two years ago at the third month, and had never been free from pain after that time. After the miscarriage she had an inflammatory illness, and she had been almost continuously unwell ever since. When pressed upon on the left side, I found the uterus fixed in the pelvis and extremely sensitive to the touch. I advised an abdominal section which was performed June 7th. The contents of the pelvis were all matted together, and the appendages were separated with great difficulty. Both tubes were occluded and distended with purulent serum. She made an easy recovery, and went home at the end of the month.

L. D., aged 27, had been married four years, had one child three years ago. She had never been well since. She came to see me for the first time in February last. Her periods came on every fortnight or three weeks, and lasted for about four days. They were not profuse, but they were accompanied by agonizing pain, which came on three or four days before each period. I found the uterus somewhat fixed and slightly retroflexed, but on either side of it were fixed tender masses, which could easily be recognised as the uterine appendages altered by chronic inflammatory disease. Dr. Gibson, who sent her to me, communicated the information that she had been in the Middlesex Hospital, under the care of Dr. Arthur Edis, who wrote to him to the effect that she suffered from prolapse of the left ovary, retroflexion of the uterus, and cervical endometritis ; that he had replaced the uterus and ovary, inserted a ring pessary, and slit the cervix. Under Dr. Gibson's care she had been using astringent injections and taking bromide of potassium and ergot, but without benefit. Dr. Gibson had found her temperature was subject to occasional exaltations. I wrote to Dr. Edis about the case, and he was kind enough to let me know that she had been in the Middlesex Hospital under his care in November last, that when he had got the uterus replaced it was noticed that the tubes were distended, and that they were responsible for her sufferings. He wrote to me —" I advised trying the ring for a time, and had I had your experience should have proposed the operation you have performed, but I am now only beginning to appreciate it. I quite approve of your treatment, and you are at liberty to mention my name." The removal of the appendages was performed June 7th. As usual they were found densely adherent. Both tubes were occluded and distended with serum, and the operation was a difficult one. She made an easy recovery and went home July 8th.

(*To be continued.*)

ON EPIDEMIC CHOLERA.

By ALEXANDER HAMILTON HOWE, M.D., F.R.A.S.

Madras Medical Establishment.

As the attention of the public and the profession is being now strongly directed to the subject of cholera. I may be permitted to advert to the circumstance that in a work published by me in 1865, I distinctly stated, from a historical deduction extending over many centuries past, that severe epidemic visitations of a general character observe a certain well-defined law of periodic return. In this respect epidemic visitations only follow the universally accepted fact in regard to the regular return of the phenomena in the other departments of physical science. In the work alluded to I further stated that the phase of periodic return occupied a period of eighteen years, subject, however, like all other natural phenomena to an occasional deviation of about one year on one side or the other of eighteen years. That is to say, that they might anticipate (like an ague fit) and appear in the course of seventeen years, or they might procrastinate (also like a fit of ague) and not appear until after an interval of nineteen years. All these circumstances are quite in accordance with the phenomena observed in other departments of Nature.

Now your readers are well aware that the cholera has been prevailing on the shores of the Mediterranean during the years of 1882 and 1883. And now, in 1884, it is not only existing on the shores of the Mediterranean, but spreading more generally throughout Europe, although certainly not to any very alarming extent, and is even exciting apprehension in our own country. This is entirely in accordance with the theory laid down in my book,[1] which I now no longer regard as a theory, but as an established fact.

There are certain circumstances opposed to the reception of this theory by the medical profession. In the first place, the virulence of all epidemics has a tendency to wear itself out in the course of time and become comparatively innocuous until they finally disappear, so far as that particular specific form is concerned, altogether. In the second place, the improved sanitary measures which have been adopted by all the States of Europe must have a tendency to prevent epidemic disease from establishing a footing in those countries where sanitary precautions have been rigidly ordained and enforced. Thirdly, the peculiar state of the atmosphere induced by the periodic cause, and upon which I conceive the disease to depend, is quite beyond the province of the medical enquirer. Consequently the medical critic cannot be considered as a competent judge, and, so far as I am aware, he is as yet unable to establish any other alternative cause.

I do not mean to depreciate or disparage the researches that are being conducted by scientific men with a view of discovering the recondite phenomena upon which they consider cholera to depend. These researches do not at all interfere with the periodic law of return every eighteen years which I have ventured to announce, a law which is as plain and palpable to the peasant as it is to the philosopher, and which warns Governments at intervals of eighteen years to adopt more stringent sanitary regulations than those usually in force at other times.

Since the year 1865 my theory of the periodic return has been on its trial and has been confirmed both

[1] A Theoretical Enquiry into the Physical Cause of Epidemic Diseases. By Alexander Hamilton Howe, M.D. London : Churchill & Co., 1865.

negatively and positively. In the first place, no great epidemic of cholera visited Europe between 1865 and 1883. In the second place, an epidemic of cholera has been prevailing in Europe during 1883 and now again in 1884. In these two ways then I consider that the theory I propounded of an eighteen-year phase of the cholera return has been completely substantiated. I may mention that this phasal theory of epidemics is not altogether new, for Sydenham had already proposed a forty-year phase for the plague. The great objection to the period assigned by Sydenham is that there is no natural phenomenon likely to affect our atmosphere that occupies a period of forty years; whereas every eighteen years there is the recurrence of natural phenomena which are likely most powerfully to affect our atmosphere, which, with the older physicians, I regard as the medium for the dissemination and propagation of the pestilence.

I do not presume to determine what is the proximate cause of cholera All that I have attempted to do is to show that at intervals of about eighteen years certain remote causes come into operation which favour the propagation and spread of cholera, and that these epidemic phases can be foreseen and calculated, and governments and local authorities warned to anticipate, prevent, and eventually stamp out the disease. But if this periodic return of epidemic disease is so very regular as I have described it to be, how is it that it has so signally eluded the observation of other enquirers who have been so sedulously directing their attention to the subject of epidemic visitations? This apparent oversight on the part of medical enquirers is very easily accounted for. Previous to the great epidemic epoch, the plague of London of 1665, plague and pestilence had been frequent visitors of our English towns, and Sydenham distinctly states that it visited England every forty years. But between the plague of London of 1665, called the Great Plague (for there was an occurrence of plague in London in 1683, although perhaps not in so marked a degree) and the appearance of cholera in England in 1831, there occurs a period of no less than 166 (one hundred and sixty-six) years apparently without the appearance of any epidemic visitation whatever. It becomes, therefore, a necessary part of the theory which I have endeavoured to propound, in order that its truth may be fully established, to account for this cessation in the appearance of epidemic visitations during this long period of 166 years. Now this, so far from being evidence of failure of the truth of the theory, is one of the very strongest proofs in its favour. And it is of some consequence to dwell upon this fact, for upon it depends the inability of the great body of medical enquirers to recognise the periodicity of epidemic returns. Previous to the year 1660, and even for several years afterwards, for anything I can discover to the contrary, there existed in England, and I presume in other countries also, a Levant Company. Now we can easily understand how pestilences which usually have their origin in the East would be brought by this Levant Company—in their goods and agents—to England, and disseminated in the other countries of Europe by the same agencies. This fact will sufficiently account for what has been called by Hecker "The Plague of the Middle Ages," and treated by him at great length. But the year 1600 inaugurated a new era in Oriental trade. The English East India Company was formed, the Mediterranean route to India was abandoned, and East India produce and goods and passengers were brought round the Cape of Good Hope.

It is not necessary for me to dilate upon this subject, but I think I have offered a sufficient reason for the disappearance of pestilence, from Great Britain at least, for a long period after the adoption of the Cape of Good Hope route to India. It is hardly possible that the seeds of epidemic pestilence could survive a period of six months, usually at that time consumed in a voyage home from India.

Again, the period which elapsed between the Great Plague of London in 1665 and the cholera visitation of 1831 amounts to exactly one hundred and sixty-six years, that is nine revolutions of the phase of eighteen and a half years, and is quite in accordance with the theory that I have propounded, and is one of the strongest proofs in its favour. Since the year 1831 the chain of sequences in the return of epidemic diseases at the interval I have specified has been quite complete. And why? Simply because the Mediterranean route to India has been resumed, at least ever since the commencement of the present century, and other European countries, such as Russia, have had much more intimate connection with Persia, China, Tartary, and other Oriental countries during the present century than ever they had before. These reasons seem quite sufficient to account for the European pestilences of the Middle Ages, the almost complete disappearance of pestilence during the long period of 166 years, and finally its renewed appearance in our days in the countries of Europe under the form of epidemic cholera, at regular intervals, and the failure on the part of the general body of the medical profession to recognise the periodicity of its return.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

CHRONIC DISEASE OF KNEE — EXCISION —SOFT FIBROUS UNION—AMPUTATION—REMARKS ON "CONSERVATIVE" SURGERY.

(Under the care of Mr. R. W. PARKER, Surgeon to the Hospital.)

JOHN R., æt. 6½ years, whose father had just died of "rapid consumption," æt. 35, was admitted with chronic disease of the left knee-joint. The leg was much flexed on the thigh, but there was no displacement of the head of tibia on the condyles of the femur. After getting the leg into a good position, it was put into a fixative dressing, and the boy was sent to St. Leonards, where he remained five weeks. He was re-admitted in January, 1883. His general health had improved while at St. Leonards, but the knee remained *in statû quo*. The leg was again greatly flexed on the thigh. He started occasionally in his sleep; the knee was swollen, and painful when moved or handled. There was a sense of semi-fluctuation in the joint, which was believed to be "pulpy" thickening of the synovial membrane.

February 2.—After consultation it was decided to open up the joint and explore. This being done, about one ounce of thick caseous pus escaped; the synovial membrane was everywhere very much thickened, and the cartilage of the joint eroded in many places. A thin layer was removed from the tibia and from the femur, the bone thus exposed appearing somewhat soft and fatty, but not materially diseased; it was very vascular. The diseased synovial membrane was then carefully removed. After ligature or torsion of a few smaller vessels, the whole joint was swabbed out with chloride of zinc lotion. A drainage tube was inserted on each side, and the flaps brought carefully together. The limb was put on an excision splint

carefully padded with carbolised-waxed lint, and fixed with bandages soaked in the same mixture, the whole dressing being impermeable to secretions, the operation being carried out with Listerian precautions.

February 9.—The boy has been fairly easy since the operation. The limb is not painful; the line of incision appears to have healed; there is little discharge; the tubes were shortened. The temperature has varied from normal to 100° F., averaging about 99° F.

February 20.—The line of incision, which appeared to have united by first intention, has widened out considerably, during the past few days especially. As this appeared due to the riding forward of the femur, the whole splint was removed (the boy being chloroformed) and re-adjusted.

March 13.—The femur still appeared to be riding forward; he had chloroform again therefore with a view to the re-adjustment of the splint. There was found to be no union; the line of incision was separating; this was opened up anew, and the granulation tissue between the extremities of the femur and tibia was scraped away; it was pale and flabby and covered with pus. There was little hæmorrhage. After this had been done effectually, the limb was readjusted, good apposition of parts, bony and integumental, being obtained. There was very little reaction. He required dressing about every other day, strict Listerian precautions being taken.

April 7.—Parts again carefully examined; discharge not profuse, quite sweet. A general want of reparative power daily becomes more apparent; there is a hectic fever, and the boy's appetite is variable.

May 21.—The limb began to improve a week or two back; it is still in very good position, and there appears to be some union. The wound is quite aseptic. He sweats very freely; belladonna was ordered, and answered well.

June 30.—One of two small collections of pus have been opened in the hinder part of the leg, evidently gravitation abscesses. Union is taking place. The granulations along the external wound are very œdematous and discharge pus copiously.

July 20.—Condition of the wound much about the same; it appeared now to be quite superficial; antiseptic dressings were therefore left off, and boracic ointment substituted. The general condition was not satisfactory; the boy was greatly emaciated, but it was hoped he would now commence to improve.

October 10.—He was sent into the country *in statû quo*.

February, 1884.—He returned. General health improved; the local condition much as before. There was union, but it was not firm, obviously fibrous at best.

The boy's friends desired to take him home and he was accordingly discharged.

March.—He was re-admitted. He was now 8 years old and still greatly emaciated; the granulations along the line of the excision wound very œdematous and flabby; the limb was very painful when moved.

Amputation was recommended and performed; recovery was exceedingly slow, but complete at last. The lower extremity of the sawn femur looked soft and fatty; the medullary cavity was scraped out and some iodoform dusted in; the flaps were likewise dusted with iodoform. They finally united, and the boy left the hospital for the country with the stump well healed. He was just beginning to make flesh; was free from pain; showed no signs of lung complication, or of lardaceous disease, but was exceedingly anæmic.

Remarks by Mr. Parker.—In this case, at the onset, there was nothing to indicate the want of reparative power, which became so conspicuous during the course of treatment, unless, perhaps, the fact that the disease showed no signs of clearing up. When first seen, there was a good deal of synovial disease, for which Scott's dressing, counter-irritants, strapping, rest in bed in plaster of Paris bandages were tried in turn, and continued for considerable periods; cod liver oil &c., being given internally. Nor at the time of excision did the condition of the bones indicate anything abnormal. Yet after the first week or two the leg showed little or no tendency to repair.

It was, perhaps, not true "conservative" surgery: to persist so long in the attempt to save the limb; on the other hand, it was not easy to decide on the moment for amputation. I was a little influenced, perhaps, by a case which was under treatment about the same time. A boy, sent to the hospital as a case of acute rheumatism, was found to have periostitis of his iliac bone, which, in process of time, destroyed the hip joint and set up an extensive cellulitis of the thigh, with destruction of the upper portion of the femur. After a lengthened illness, and after the knee-joint had shown symptoms of becoming implicated, I recommended amputation at the hip joint as the best means—a very uncertain one—of saving life. The parents objected, they preferred "to take the boy to die quietly at home." After lingering on, he suddenly began to improve in health, and finally quite recovered. The knee-joint has gradually become quite movable, the upper part of the femur has reproduced itself, and the boy has a thoroughly serviceable limb. There is considerable movement about the upper end of the femur, which rests somewhere on the dorsum ilii. One cannot help calling to mind many other cases pronounced hopeless, which, with patience and time, have righted themselves without the final appeal to surgical ablation.

The great difficulty is to know in which cases to wait, and when to proceed to active treatment. Of course, the difference in the probable course of a disease with an acute onset (such as the last-mentioned case) and one in which the onset is very chronic (as in the case related in the text) is always present to the surgeon's mind. Unfortunately, however, it is no sure guide, especially in children. The case I have related appears simple enough "after the event," yet, while it was going on, I felt much puzzled as to the line of treatment which I ought to adopt. Fortunately, the boy finally recovered, and in the contemplation of his maimed limb, he will have the satisfaction of knowing that it was not sacrificed hastily, nor until longer delay would probably have fatally exhausted him.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 6, 1884.

The cholera microbe has definitely transferred its head-quarters from France to Italy, where, if we may judge from the statistics furnished by the daily telegrams in the papers, it has found a soil suited both to its requirements and capacities. For Saturday and Sunday the official bulletins in Italy acknowledged 56 and 81 deaths respectively, and on Monday the fact that cholera had broken out in Naples was an open secret. In the first 36 hours after its recognition, 50 deaths were recorded out of less than 100 cases; and those who are familiar with the insanitary condition of that city will not be surprised to learn that the epidemic there is assuming serious proportions.

In France the number of fresh cases is steadily decreasing; at Toulon the average number of deaths is not above one per diem, and it is not much higher at Marseilles. Perpignan and Carcassonne at present share the credit of providing the largest number of deaths. Considerable alarm, not to say consternation, seems to have been caused at Madrid by the news that cases of cholera had occurred at Alicante and Novelda in the province of Alicante. The first cases occurred in a family who had come from Cette in a ship *viâ* Algiers, and had been quarantined for a week at Alicante before being allowed to land.

The failure of Italy to exclude the cholera by means of her quarantine precautions and other similar forms of sanitary fencing, is but another proof of the folly of regarding State sanitation as all-sufficient, and personal hygiene as consequently unnecessary, or at least unimportant. The lesson would be a striking one did it go no further; but no one can have read those graphic reports from Spezzia and other infected towns, describing the panic which prevailed, and which so intensified the terrors of the situation, without perceiving how largely it was due to a belief that since the cholera had conquered quarantine, it must be invincible. The people had been taught to rely on the efficacy of a system which was to repel disease from their borders; and, happy in the fancied security of such protection, they had little inducement to trouble themselves as to any need for local sanitary improvements. So that, when the dread visitant appeared amongst them, not only was there a rude shattering of old convictions, but there was neither the knowledge nor the training needed for exercising that calm courage which is equal to meeting the foe on his own ground and defeating him by means of his own weapons reversed. No doubt our countrymen have reason to be thankful for the national phlegm with which they are sometimes reproached, for panic is a cause powerfully predisposing to more than one sort of disaster, and a proneness to panic is but a bad preparation for danger. But if we may claim to view the spread of cholera in Europe with a calmness which is something higher than selfishness and more intelligent than ignorant indifference, it is due to the fact that we have learned to realise that a successful issue in struggles of this sort depends on the personal care of health, and that a national hygiene worthy of the name is but the sum of well-directed individual action.

The subject of over-pressure in schools has engaged the attention of the public and of the press to a considerable extent lately. Under the title of "Evening Schools and Over-pressure," the leading journal recently broke fresh ground, and raised questions which will not conduce to the equanimity of those who already find themselves puzzled to adjudicate between the demand for education, the risks of over-pressure, and the claims of parents and employers on the time and labour of the educational material. The State has prohibited all children under 14 years of age from labouring for hire, unless they have (1) reached the age of 10; and (2) passed a certain standard of educational proficiency. The minimum of this standard, as at present fixed, is somewhat lower in England than in Scotland, where it cannot be lower than the 5th standard for whole-time labour, and the 3rd for half-timers. If we accept the doctrine so unhesitatingly asserted by the *Times*, that "it is certain that this *minimum*, instead of being lowered, will ere long be raised, so as, at any rate, to assimilate the labour conditions of England and Wales to those already in force in Scotland," it becomes obvious that the mental strain under which a child has hitherto been successfully "passed on" to labour is likely to increase rather than diminish in the future; and that the cry of teachers and school managers will be for "more time" in which to accomplish the task demanded of them.

With regard to the meaning of this phrase—"more time," it must be remembered, in the first place, that the present system is admitted to "make sufficient demands upon the health and strength both of teachers and children, to say nothing of pupil teachers;" that, in short, it would be as impossible, as dangerous to the health of those concerned, and as unpopular, to demand an attendance for more hours each day, or more days each week, as it would be to attempt to shorten the already brief holidays allowed in Elementary Schools. "More time," therefore, would resolve itself into the devotion of a greater number of years than hitherto to the schooling of each individual child. Compulsory attendance in England begins, as it is, at 5 years of age; and of all the children liable to school-attendance between that age and 7, nearly eighty per cent. are already entered on the school register; and in this connection it is noteworthy that of *all* the children whose names appear on the registers, nearly ten per cent. are those of infants *under five years* of age, who attend school "voluntarily"—which means, we take it, by the wishes of their parents. On turning to the other end of the attendance lists, it appears that of children between 11 and 13 years old, some 75 per cent. only attend school regularly; but if this percentage is to be raised, it will mean depriving the parents of one or possibly of two of the years during which, at present, the earnings of their children are available. The parents will not be willing to relinquish that which they now often regard as the too-long delayed return upon the outlay involved in rearing their infants, clothing and keeping them, and paying the school-fees. And if the *minimum* requirements for the coveted "labour certificate" are to be raised, the child will be likely to fare but badly between the increased difficulty of passing the necessary standard, and the urgency of the parents that this standard shall be passed at the very earliest age possible.

The only adequate solution of the difficulty appears to lie in adopting the method which has found favour on the Continent—that is, in "lengthening out the period of half-time attendance, and in extending and perfecting the system of evening schools." It is clear that each portion of this plan is complementary to the other; but in England there appear grave reasons to apprehend considerable difficulty in securing such an

attendance at the night schools as shall, from the educational point of view, make good and justify the allowance of "half-time." As the facts stand, the average of attendance at night schools has fallen by 62 per cent. since 1870, and the average of those present at examinations by no less than 68 per cent.; while from all parts of the country comes the story that the night schools are dwindling so rapidly in number that they are already spoken of by one inspector as "practically extinct." This is not hopeful intelligenee for those who see in the judicious combination of half-time and night school work for the older children the only practicable means of meeting "the changing requirements of successive codes" without incurring overpressure.

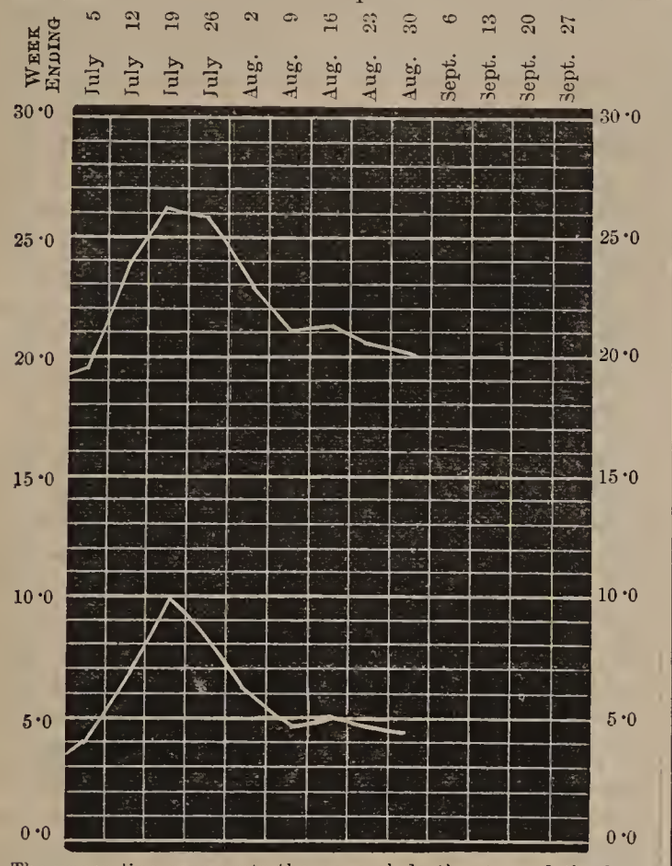
There are two other points in the article from which we have quoted which deserve attention. It is incidentally suggested that the efficiency of the evening schools might be secured by providing such stipends as would induce the best of the day-school teachers to undertake the work. If this means "to induce the day-school teachers to undertake the" evening work in addition to that demanded of them during the day, the proposal is both cruel and short-sighted. The present work of the day teachers is not so easy as to allow of their working double-tides without injury to themselves and a lowering of their average efficiency. And as regards the causes of the admitted failure of the evening-school system, we believe that Mr. Wilkinson goes to the root of the difficulty when he writes, "The 'hobbledehoys' of the period are most impatient under restraint. They are their own masters at sixteen years of age. They earn more than enough to meet all their legitimate wants, and their surplus time and money they prefer to spend in amusement rather than in improvement. A 'free and easy' evening school would probably be a financial success, but a well-ordered evening school cannot be put up with." We are tempted to ask who and what is answerable for the "impatience of restraint" displayed by those hobbledehoys who were once infants exempt from compulsory attendance? Is there some essential quality lacking in the School-board fare? And by teaching even only one or two subjects thoroughly up to a certain stage, rather than by attempting a broad-cast smattering of several, is it not possible to make knowledge so far attractive to "half-timers" as to induce a fuller voluntary attendance at the evening classes during the later years of life? It seems to us that the salvation of the evening schools depends upon an enlightened treatment of the day scholars.

The question of an adequate water supply presses us on all sides, and not least heavily in relation to the towns situated in the valley of the Thames. The results of an exceptionally long and dry summer prove only more plainly than before the folly of dealing with a scientific problem after an unscientific and piecemeal fashion. We drain deeply and broadly, so that the showers rush into the brooks scarcely moistening the roots of the plants on their way; we riddle the natural reservoirs of the great water-bearing strata, and cover the surface with a maze of streets and houses for the myriad population which clamours for plenty of pure water, and yields an abundance of foul sewage. In a recent letter to the *Times*, Mr. F. R. Condor reminds us that between 1827 and 1849, the water level beneath London was depressed by 98 feet; and, citing the lowering of the water in a gravel bed of some three thousand acres in extent, near Oxford, by about 16 feet, remarks that each foot of that fall probably represented the stored-up rainfall percolating in a year. Again, while the flood discharge of the Thames at Hampton is some 400 metric tons per second, its *minimum* summer flow is only about one-twentieth of that amount; and on this lower quantity the needs of the vast population in its neighbourhood begins even now to tell.

It has frequently been proposed to meet the difficulty by storing the excess of the flood volume of the river in capacious reservoirs, whence it might be released to meet domestic and sanitary demands, and for the requirements of navigation. The Thames Valley, however, does not lend itself kindly to the purpose. Land is dear; and it has been estimated that to store one inch of the rainfall of the Thames Valley (an amount equivalent to the total annual supply of the existing London water companies) would entail the expenditure of at least 5,000,000*l*. And this, while doubling the cost per head of the water supply for domestic and sanitary purposes, would afford but little aid to navigation or towards the prevention of floods. The project for bringing an aqueduct of sea-water from some spot on the South Coast to London, for which the necessary Act of Parliament has been obtained, may, if successful, secure an efficient flushing of the sewers, and help to cleanse the lower reaches of the river. But it would seem that the real solution of our main difficulties in this matter lies—as might have been anticipated—in treating the problem as a whole; in dealing fairly with the real sources of supply, and in a wise conservancy of the natural subterranean reservoirs; rather than in hurrying water out of the soil—first making our rivers unmanageable and then attempting to control them.

The general and the zymotic death-rates last week both exhibit a further fall, but the total number of deaths was nevertheless 88 above the corrected average of that week for the past ten years. When we add that the number of births was 145 below the corrected average, we shall have afforded sufficient data for an idle person, with a turn for figures, to calculate the probable date of the entire extinction of London as the habitation of human beings. The deaths from measles, whooping cough, and scarlet fever, all showed a decline in numbers, as did also those from diphtheria; but it is impossible to help noticing that of the 23 deaths which occurred from this malady in the 28 large towns, no less than 16 were recorded in London. There was a difference of nearly 43° between the highest and lowest temperatures during

the week, which perhaps accounts for the fact that the deaths from bronchitis and pneumonia exceeded the



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the first nine weeks of the current quarter.

corrected average. It is worth mentioning that two deaths occurred during the week in one of the Metropolitan hospitals from hydrophobia.

Burnley, which formed the subject of an investigation by the Local Government Board in 1873, has been again inspected and reported upon, this time on account of its abnormally high death-rate from fever, by which term is probably meant typhoid fever exclusively, though the point is not quite certain. Positive conclusions as to the cause of the fever could not be attained, owing to the length of time that had been allowed to elapse before the enquiry was instituted, but certain facts in regard to excremental nuisances and defective drainage were made very evident. The favourite method, and a very objectionable one in the eyes of Dr. Airy, the author of the recent report, of dealing with excreta, appears to be to have a large earthenware tank sunk into the ground at the back or side of the privy, with which it communicates by means of an earthenware cone placed under the seat. Six inches from the level of the top of the tank is an overflow pipe leading to the sewer, which should convey the surface fluid away, whenever the holes placed at its entrance to the tank are not so much blocked up as to prevent this. The tanks are covered over with a stone slab, and the chief objection to them is that, being but seldom cleaned out, the decomposition which takes place within them keeps the air in a fœtid state and is a constant source of danger to the neighbourhood. Pail closets are also used, but to a less extent, and they are not emptied sufficiently often to be free from objection. Burnley has an abundant water supply and a good system of sewers, and there does not seem to be any reason why the present objectionable and inefficient privies should not give place to properly constructed water-closets. The provision for dealing with infectious cases is most meagre and not good of its kind, consisting of a row of four small two-storied labourers' cottages, which have been made to communicate by holes knocked through the party walls, so that setting apart one cottage for the caretaker, there are in all six rooms available, none large enough to accommodate more than one person, and all communicating with each other, so that different classes of infectious disease could not be treated at the same time.

A pamphlet on the Sandefjord Sulphur Bath, by Dr. C. A. Knutsen, has lately been placed in our hands. Sandefjord is a small town in the South of Norway, possessing many recommendations in the shape of readiness of accessibility, good accommodation, and beautiful surrounding scenery. The pamphlet appears to have been written in order to make known to the members of the Congress the properties of the natural waters of this little town. Besides the bath, there are sulphureous waters to be taken internally, and much stress is laid upon the use of poultices and inunctions in the local treatment of disease. Rheumatism and rheumatic pains are amongst the affections most amenable to this line of treatment, whilst very good results are said to have been obtained in syphilis. After making due allowance for the natural enthusiasm of the writer of the book, it must be admitted that considerable benefit has probably been derived from the treatment advocated in it.

That degraded form of competition which results in the adulteration of various articles of diet, calls for some preventive more effectual than mere reprobation of the practice is ever likely to prove. But while we feel a natural satisfaction on learning that a well-merited punishment has overtaken the perpetrators of a form of fraud whose effects are practically illimitable, there is some reason for congratulation when, at the same time, we are able to derive a therapeutic hint from the very measures which are under condemnation. Certain "articles" which are in use amongst some of the cheaper New York coffee houses, have been found on analysis to be so grossly adulterated that the manufacturers are to be prosecuted. Dried blood appears to be one of the ingredients which enters largely into the compounds sold under the name of "coffee-essence." It is probable that few would prefer, or would care to pay the price of coffee for drinking such a substitute; but if dried blood can be so manipulated as to make a passable third-rate coffee, it is at least possible that genuine coffee (or the nearest approach to it now obtainable in England) may serve as a good vehicle for the administration of those preparations of pure dessicated blood which undoubtedly possess a real therapeutic value in certain debilitated conditions of the system. The drift of recent legislation on the subject has, unfortunately, been all in favour of coffee adulteration in this country. We should be

thankful for all mercies, and perhaps it is some consolation—a kind of set-off to the nationalization of a vitiated taste in coffee-drinking—to feel that we have been forced into familiarity with a beverage which is, by virtue of its mongrel composition, only the better fitted to serve as the disguise of a remedy which is valuable, but not too appetising or attractive in itself.

The following is the list of officers for the ensuing session of the West London Medico-Chirurgical Society:—President, Mr. F. Lawrance; Vice-Presidents, Dr. Alderson, Dr. Travers, Dr. Thudichum, Dr. Pickett; Council, Mr. Barnes, Dr. Clippingdale, Mr. Swinford Edwards, Mr. Hemming, Mr. J. R. Lunn, Mr. Potter, Mr. Walker, Dr. Hart Vinen, Mr. R. F. Benham, Mr. C. B. Keetley, Dr. Owles, Surg.-Major Scriven; Treasurer, Mr. Alfred Cooper; Secretaries, Dr. Campbell Pope, Mr. Gunton Alderton. The meetings are held on the first Friday in each month, at 8 p.m., at the West London Hospital.

Dr. John Popham, who died a few days ago at Ealing, in his 78th year, was, up till two years ago, a well-known and highly esteemed practitioner in Cork. He was a graduate in medicine of the Universities of Cambridge and Dublin, having been one of the most distinguished students of his day in the latter. For more than forty years he was Physician to the North Infirmary, Cork, and was also Chemical Lecturer at that Institution. He contributed several papers to the medical journals, one of which, on the "Climate and Diseases of the City of Cork," succeeded in making more than a local reputation for itself, and was translated into German.

Dr. Eustace Smith's new work, which bears the philosophical title of "A Practical Treatise on Disease in Children," is almost ready for publication. It will appear simultaneously in America and England, and may count upon a large circle of readers.

An argument commonly used by the anti-vivisectionists is to the effect that, not content with experimenting on the brute creation, the vivisector will ere long be treating human beings in the same fashion. Whatever be their individual opinion on the subject, it must have afforded some satisfaction to the readers of the *Morning Post* to have this question raised so plainly and so frankly as it was put before them by Miss Burton in her recent letter to that paper. Premising that "M. Pasteur's refusal of human subjects and yet going on with animals, having perfectly succeeded with them," is, to her mind, "very shocking." Miss Burton propounds a question at which she knows one-third of the public will be dreadfully shocked, while two-thirds will quite agree with her, though "few will have the courage to say so." She wants a plain answer to the plain question—Why a doctor may not go to a condemned cell and say, "John Smith you are to be hanged in forty-eight hours, for the murder of your wife and innocent children. I am permitted to make you an offer which you are to think over for twenty-four hours, and are not obliged to accept. There is an operation to be performed in the hospital the day after to-morrow. It is useless to use animals for it, because their bodies are not in the least like ours, and the results are not much, if any. If you like to accept the risk, you may. It will be to my interest that you suffer as little as possible, and to the honour and glory of my profession if you survive the operation. If you recover you are granted a 'free pardon' until you repeat your crime (of murder or brutal violence) when you will belong to us as a subject without choice. If you die you do not die a felon's death, nor leave the shame upon your innocent posterity; for, as you took life, so you have freely offered yours for the benefit of mankind, and expiated your crime before God and man."

In the form which it is made to assume, this question appears scarcely as "plain" to us as to its author. We do not recognise the class of operations habitually performed "in hospitals" for which "animals are useless," and for which, nevertheless, no human patients are, under the present conditions, forthcoming. It may be true that, were such a plan enforced, "the vivisector would only be using up virulent material that has to be got rid of at any rate;" but unless we are admitted to a fuller knowledge as to how, and with what object, this material is to be "used up," we are not justified in endorsing the thesis that the substitution of one criminal in lieu of "whole hetacombs (the phraseology here employed again lacks something of the accuracy so necessary to scientific discussion) of harmless, innocent, faithful, intelligent creatures," would "give a certainty instead of producing little or no result."

"Anæsthetics would, of course, be used as much as possible"; and, under the circumstances, Miss Burton thinks that "no man condemned to be hanged on the morrow would refuse such a chance as this." Yet, if the terrible and deterrent weight of a capital sentence were liable to be thus reduced, it does not seem clear that such a course would "materially diminish crime." And having regard to the nature of the operations incidental to that kind of experimental research for which the living human body, if available, would be of the greatest value, we could not soberly promise the subject of such experiment that its result, physically and mentally, would be such as to "give a man a chance of beginning a new and better life"—in this world, at all events.

Stripped of its errors and extravagances, the question nevertheless contains an outline of that which must, in one form or another, have suggested itself to the mind of every one who has honestly, thoughtfully, and reverently endeavoured to master for himself the ethics of experimental physiology. It is a question which may, at some not distant day, demand an answer; but it is one to which we may feel thankful that the medical profession can never be called upon to reply alone. Miss Burton says that she does not believe much in changing men and women, but has great faith in forming children, and has "no sickly philanthropy at all for the 'human brute,' who has all England's tenderest sympathies now-a-days." It would seem that Miss Burton is a vivisectionist—if we may

apply to her that much-abused term without discourtesy—spoiled only through lack of an inadequate acquaintance of the subject. If she will undertake a thorough and impartial consideration of the question, she will realise that the right practice of experimental physiology involves no lessened respect or sympathy for the animals whose cause she pleads so eloquently, and for which she has worked so well.

The condition of our English graveyards is not even now, in every instance, all that can be desired; but it is something to be able to lay the flattering unction to our souls that these matters are not always better managed abroad, even in those lands in which the temporal power of the Church is held to be greater than in our own. The sanitary condition of a city situated upon one of the great natural highways of commerce cannot be a matter of complete indifference to the rest of the world; and though it may be "well known that Panama itself has a very trying climate, and is a very dirty city," it does not follow that ordinary folk are prepared for the horrible yet soberly-stated revelations which have of late been published respecting its two most conspicuous and potent sources of disease, viz., the condition of the cemeteries and of the water-supply.

Writing in the early part of 1882, Dr. Heffenger stated that the annual death-rate of the city of Panama was at least eighty-eight per thousand, and that of these deaths one-half was due to malarial (yellow?) fevers, and one-fourth to small-pox. The largest cemetery, which is the immediate property of the bishop, was built by the Spanish Government nearly two hundred years ago upon a boggy piece of land about a mile to the westward of the city. It consists of three hundred and sixty-five niches arranged in three tiers, forming a hollow square. Only the wealthy can indulge in this ultimate luxury, and upon the demise of one of the favoured sons of fortune, the body is placed in one of the niches and sealed up by a suitably (?) inscribed tablet, so to remain—as long as cadaveric rent is paid to the Church. Should, however, the relatives of the deceased fail to keep up this payment, the coffin and its contents are tossed into the swamp, just to the rear of the cemetery, "where at all times may be seen the unsightly remnant of ancient and recent dead, old Spanish hidalgos, proud doñas, fair señoritas, and new-born babes, lying in a promiscuous heap of putrescence ten feet high, their white, staring, tongueless skulls mutely protesting against such barbaric desecration of the dead."

It is further stated that in September, 1882, an earthquake loosened the walls, and cracked many of the *bovedas*, or niches, which in the climate of Peru are veritable ovens, filled with putrescent humanity—so long as rents are paid. A letter published in the *Panama Star and Herald*, in April of the present year, from Dr. Wolfredhelson, a late Member of the Panama Board of Health, shows that the conditions portrayed have been in no way improved, and appears to justify his prediction that the old Church would prove too strong for the young Board of Health. While the Jewish, the Chinese, and the "foreign" cemeteries are in excellent order, the condition of the two native cemeteries—that owned by the bishop, and rented in niches to the rich, and that used for the general burial of the poor—is in every way and wholly loathsome. With regard to the general cemetery it need only be pointed out that it covers but three-quarters of an acre of ground, for an increasing population of twenty thousand people, and that in the necessary process of interment it is dug over at least once every year. Nor is the air the only medium by which the poisonous influence of these so-called cemeteries—seldom has the term resting-place been applied less aptly—is diffused. Within a hundred feet of each of them are wells from which water is drawn and sold for drinking purposes throughout the city, and from which washerwomen draw their supplies "for cleansing and infecting" the soiled linen of the inhabitants.

We feel and express no sympathy with the morbid minds which find their pleasure in the mere unveiling of horrors such as these. At the same time, an evil is not the less an evil because we may choose to ignore the fact of its existence and persistence; even in matters sanitary, perfection is not necessarily maintained simply because it has once been won; and while we are sometimes tempted to hug ourselves in the smug belief that we have done and are doing all that is required, it is as well to be reminded now and again of the depths to which we might sink were we to become oblivious of our ideal, or to relax our efforts after its attainment. All the great questions of practical sanitation are stirred by the pathetic commentary of the local press on the state of things which has just been sketched:—"This whole isthmus wants sanitary reform, at once, to make it a fitting place for human beings to live on, and to prepare it for the great future that lies before it. Let us hope that some plan of combined wisdom and hygiene will bring about such an ending. Humanity and science demand it." What is the power that will undertake and effect it?

At the meeting of the British Dental Association at Edinburgh last week, a discussion was raised, by some remarks of Mr. Brownlie, of Glasgow, on the fees for operations, and the absurd system of giving advice, where no operation was indicated, for nothing. This was universally condemned by all the speakers, but the remedy is in the hands of the dentists themselves, as was pointed out by the President-Elect, Dr. Cunningham, of Cambridge. The question thus raised is, however, capable of wider application than to dentists only. In all the departments of our profession, the public are willing to pay, or at any rate do pay, at a very much higher rate for manual dexterity than for advice pure and simple. Indeed, the inconsistency and absurdity is much more obvious in the case of medicine and surgery than it is in dentistry. Thus a man will pay two guineas for a consultation on which the whole future of his life depends, for instance, whether he is to leave the country on account of a supposed or real delicacy at his chest, and a hundred guineas for the removal of an eye that is hopelessly lost. So long as

the profession by its silence virtually expresses its approval of the doctrine implied by this scale of fees as to the relative value of scientific discrimination in the one case, and the extremely slender manipulative dexterity required in the other, we must not be surprised if the public fail to take a more enlightened view.

The Sub-Committee of the International Collective Investigation Committee commenced their labours at their first meeting on Wednesday last.

When medical experts, chosen in our hap-hazard way, express discordant opinions in our courts of justice, it is customary to refer to France and Germany as models of the mode in which medico-legal testimony should be dealt with. As regards the former country, however, there does not seem to be much more satisfaction felt with the results of the procedure in force than among ourselves. A project for the reform of this is now before the Senate, and the Society of Legal Medicine of France has appointed an influential committee, in order to communicate its opinions as to the necessity of such a reform to the Commission of the Senate, to whom the Bill in question has been referred. These opinions are stated at length in the *Annales d'Hygiène* for April, by the reporter of the Committee, Professor Brouardel, and are well worthy the attention of those interested in the matter. We have only space to quote his conclusions, indicating remedies for what he considers the most unsatisfactory state of things which prevails in France, as well as among ourselves, viz., that there is no security against the employment of incompetent persons for this important office. The conclusions are :—1. The Society of Legal Medicine suggests that if, in spite of the inconveniences signalised in this report, the Commission admits that the evidences of the experts may be contradictory, it should accept the logical consequence of such a system. This would be the establishment of a Superior Medico-Legal Commission, analogous to the *superarbitrarium* tribunal of Berlin, having the duty of judging scientifically questions of an exclusively scientific character which may have given rise to differences of opinion between experts. (The tribunal at Berlin at present consists of Professors Virchow, Hoffmann, Bardeleben, Quincke, Skrzecka, Eulenberg, Schröder, and Von Bergmann.) 2. But the Society believes that such a reform would prove incomplete, unless the conditions for the instruction of experts and those for the practice of legal medicine undergo modification. It requests the Commission to direct the attention of the competent authorities to the following points, which, in its opinion, are alone capable of protecting the interests of society and those of the accused. (*a*) Special instruction of experts by appropriate professional teaching. (*b*) Proof of such instruction having been undergone to be furnished by a diploma, conferred by the Minister of Public Instruction, after an examination by the Professors of the Faculty of Medicine, viz., a diploma for medical experts and one for chemical experts. (*c*) An increase in the tariff of fees. Dating from 1811, the present payments are acknowledged by all as insufficient, and likely to become much more so when a more onerous system of studies shall have been imposed on candidate-experts, and upon experts themselves, by the modifications in the operative procedures rendered necessary for the control of their researches.

In the course of the last few weeks the phrase "Total Abstinence" must, in some localities, have acquired a baleful significance signally repugnant to those who are in the habit of preaching the doctrines of teetotalism. While farmers were spending five pounds a-week and more in the cartage of water for their stock, the labourers and their families have been in a still worse plight. There are districts, some even within little more than an hour's railway journey from the Metropolis, in which the water supply of villages as well as of isolated cottages is drawn from a few scattered shallow apologies for wells which have no right to the full meaning of the name, and which are dependent on the influx of surface water only. But there are many other places where even "wells" do not exist; where all the water for drinking and cooking and for cleansing purposes is obtained from the pond at the back of the house or on the village green, a shallow depression in the impervious soil, whither various odds and ends of rubbish gravitate, and to which the ducks and geese of the neighbourhood enjoy an ancient right; while, in hot weather especially, the pigs gain a forced admission to its freedom.

During seasons of average humidity the water baled from such a source is used persistently, despite the occasional discovery of a newt or other small deer of more objectionable character in the contents of the bucket; despite its muddiness and its repellent colour; and despite the evil odour which becomes more noticeable as it increases in "body," and as the shrinking volume of the pool reveals the slimy relics which strew its bottom. But, in such a summer as this has been, there comes at length a time when the green-brown mixture of the mud puddle is exhausted; and then the household must beg or buy its supply from some more persistent pool on another farm, or send, some miles perhaps, to the nearest stream or spring which has not failed. For such labour the mother has no time to spare from household duties; the children are at school, or working in the fields, and it is only towards evening, and after a hard day's sultry labour, that the father or the elder sons are available for fetching, with irksome toil and in limited amount, the water which can barely be a sufficient and assuredly not an abundant supply for the family necessities.

From one point of view it might seem mistaken to pity such people for being, even by circumstances like these, compelled into familiarity with water which is probably far purer than any to which they are accustomed. But the conditions of the luxury, both present and antecedent, are not such as to extend the popularity of water as a beverage; while it certainly favours the consumption of much over "drawn" tea and pot-house beer (*arcades ambo* in the opinion of competent authorities) as substitutes. The British farmer is reputed as a long-suffering grumbler; the English labourer suffers much, and his real grievances

do not quickly reach the public ear. In the present instance the complaints of both are only too well founded, and demand attention. Much might be done by sinking wells in properly selected spots, by deepening and fencing in those which already exist, and by careful measures for husbanding the water-supply; and good results might be achieved by intelligently carrying out the suggestion that wealthy landlords and sanitary authorities, etc., should supply Abyssinian tube-wells on hire to those districts in which water is scarce and where the geological configuration is favourable to their employment. If the state of things which we have sketched, and which in sober reality exists, is disgraceful, the drought of 1884 will at all events have accomplished some good by exposing the extent of the evil and by emphasizing the immediate need of cure.

This is the season of Congresses. Last week it was the Hygienic Congress at the Hague; this week it is the turn of the Red Cross Conference at Geneva, where the first conference of the sort was held just twenty years ago. Surgeon-General Longmore is the representative, as on former occasions, of our Government, and, with the exception of Esmarch, almost all the Continental leaders in military surgery are present. On Tuesday evening, a practical demonstration of the use of the electric light on the battlefield was given, in presence of a large audience.

THE CHOLERA FUNGUS.

The fact that Koch and his colleagues have as yet failed to observe the process of sporiferation in the bacillus, to which so much attention has been directed of late, shows that its life history is still incomplete and that we know it as yet only in its mycelial stage. Though many of the fungi may reproduce themselves for indefinite periods without emerging from this phase of their existence, and even in the *Torula* no conjugation or other sexual phenomena have ever been observed, there is reason to believe that under certain conditions sporiferation will take place. Moreover, the form which the mycelium, sporiferous or not, assumes, depends greatly on the medium in which it grows, and many of the forms referred by systematic cryptogamists to distinct genera, or even to different orders, are of this kind. Not only may oïdia, penicillia, mucors, &c., thus spring from a common origin, but it is highly probable that many of the schizomycetes are but degraded or early phases of organisms of higher grades.

In 1866, contemporaneously with the description by Professor Pacini of a bacillus, which appears to have been none other than that which is now associated with the name of Professor Koch, Professor Hallier, of Jena, published a remarkable account of a fungus which he had found in the stale rice-water evacuations of two cholera patients. This fungus had in the stools the appearance of a uro-cystis, but when cultivated in different artificial media it assumed those of four oïdia, viz., mucor, penicillium, tilletia, and achlya (?) Remembering that the parasitic fungi of cereals frequently appear as uro-cystis, he watered with the choleraic fluid rice plants growing under the most favourable conditions. Whether as a consequence or a coincidence these plants were soon blighted and their tissues permeated by like fungoid growths. But further than this he could not proceed, or recommence the cycle of metamorphoses; and though his observations cannot be questioned, it has generally been held that the association of this fungus with the cholera stools was accidental, and that the disease in the rice plant had no direct connection with either.

But if the startling accounts of alleged discoveries contained in a letter recently received from Drs. S. Maurin and Lange, who have been pursuing their researches on cholera at Marseilles since the departure of the other Commissioners, be not entirely the product of an over-heated imagination, we may have to rehabilitate the credit of the German botanist. MM. Maurin and Lange assert that on the fourth or fifth day after evacuation a mucor appeared on cholera stools and on them only, in the form of mycelium, the filaments of which were constricted at points, to which were attached capsules containing large numbers of spores. The slightest movement suffices to rupture the capsules and to discharge the spores, which, if deposited in putrid organic matter, germinate, giving rise to a mucor of another kind. It again bears spores, from which are produced the bacilli of Koch. These in a putrescent medium and exposed to the air develop into the mucor first described. They assert that the mucor No. 2, which is anaërobic, or one which does not require the presence of oxygen, is the immediate agent in the causation of the disease, and that the bacilli which in due course are derived from it, and consequently appear in the evacuations, are, as Koch found them, perfectly harmless as such.

Another striking contrast between the bacillus and the mucor which springs immediately from it is that while the former is, as Koch found, incapable of resisting the feeblest acid, the mucor defies most of the reagents commonly fatal to low vegetable life. It was not killed by a ten per cent. solution of sulphuric, hydrochloric, or carbolic acids, nor by a temperature under 150° C. (302° F.), though higher temperatures or a ten per cent. solution of tincture of iodine cause it to fall to pieces. This recalls the utter failure of disinfectants in 1866 to check the spread of cholera in Erfurt, Stettin and Leipzig, though used in such profusion that at Erfurt the very wells reeked of carbolic acid. MM. Maurin and Lange state that a specimen of this mucor, nourished in oil of turpentine and intended for presentation to the Academy of Medicine, was observed by themselves and others to continue its development unchecked, bear conidia, and to scatter its spores throughout the fluid. Should these observations be even substantially verified they will elucidate to a degree which we can but faintly realise the perplexing phenomena of the ætiology and propagation of cholera. We must, however, in justice to Professor Hallier, add that not only did he make no fewer than forty-four separate series of experiments, which were perfectly consistent in their results, but that his observations were confirmed by Dr. Thomé and Professor Du Bary, two of the most eminent mycologists of Germany.

ARMY MEDICAL DEPARTMENT REPORT FOR 1882.

[Second Article.]

The second section of the report, in addition to the statistics regarding recruiting and vaccination, to which we have already referred, is devoted to the consideration of the sanitary conditions of the home stations of the Army. The average annual strength of the non-commissioned officers and men was 86,847. The daily average of men non-effective through sickness was 409,204. The average sick time to each soldier was 17·20 days, and the average duration of each case was 20·18 days. The rate of constantly sick was 47·12 per 1,000. This gives a heavy list of non-effectives, but diseases which civilians would hide are not passed over in the barrack-room, and the soldier really unfit for duty is sent to hospital. We notice particularly that "including gonorrhœa and its sequelæ, the admission rate for all forms of venereal disease amounted to 246·0 per 1,000, and the rate of constantly sick from these diseases to 10·86 per 1,000." Of course we find the admissions into hospital varying according to the protection afforded or neglected by legislation. In 14 stations under the Act, 41,783 men gave 78 victims, and 45,064 men at non-protected stations furnished 124. We believe the public conscience is very tender, however, and requires that there should be no interference with the delicacy or the modesty of prostitutes, and we must expect in future reports, an increase of venereal disease in the British Army. Passing on to particular stations, we notice everywhere an attention to sanitary improvements with one or two notable exceptions. One is at Gravesend where we are informed "The Gravesend hospital has been reported on unfavourably for *several years*, as unsuitable both in construction and position." We suppose it is a question of money. Everybody is willing that sanitation should be attended to, but the coin to effect big reforms cannot always be found. We should like to know whether annual sums are distributed to each district which *must* be spent but not exceeded? If such an arrangement exists, we can understand why the Gravesend hospital has not been rebuilt, while minor improvements of less importance have been immediately completed. We see that the disposal of "sewage" gave trouble at the Curragh. A sewage farm attempts there to meet the ever present difficulty, but it fails, as the sewage poured upon the land is not sufficiently absorbed. We do not wonder at the perplexity of the authorities who say, "The subject is under consideration, but as there is no fall for the fluid, it seems difficult to find an outlet for its disposal."

We have said that "enteric fever" was prominent throughout the whole report for 1882, and we see that at Aldershot it is stated "there has been an unusual amount of enteric fever, more than for any period during the last 20 years, and no case could be traced to sanitary defects, but it was observed that in the quarter ending 29th December, 1882, all the cases with one exception occurred in corps recently returned from Egypt. During the year, 25 cases and 10 deaths are returned, and of these 22 admissions and 3 deaths are attributed to service abroad. Enteric fever prevailed at many other stations, and only in Dublin do we find sanitary defects given as the probable causes of the outbreak. The germ theory must account for the greater number of these attacks; and if the germ is originated by insanitary conditions, there is every reason to suppose that an epidemic of enteric fever may be imported from tropical climates of even a more virulent character than any which owes its undoubted origin to home sources. Among other febrile diseases we notice the prevalence of erysipelas at Aldershot, and here again the cases could not be referred to any sanitary defect.

We are sorry to observe that in the home districts sufficient accommodation was not provided for married soldiers. The report says, "A family of four or five children are sometimes found to be occupying one room, but it is right to add that the overcrowding has not been frequent."

REVIEWS AND NOTICES OF BOOKS.

WHARTON AND STILLÉ'S MEDICAL JURISPRUDENCE.[1]

The appearance of the fourth edition of this well-known and popular work is an evidence that an old favourite has not been forgotten, but is holding its own well against all comers. This edition consists of three large octavo volumes of some 750 pages apiece. It is clear therefore that, in the very limited space at our disposal, we cannot attempt anything like such a review as the size of the work would merit. When, however, a book reaches a fourth edition, it may be generally accepted as a proof that there is not much necessity for criticism; the public has expressed its verdict, and there is no need for more.

The first of these volumes is edited by Dr. Francis Wharton, a doctor of laws, not of medicine, and is devoted entirely to the consideration of mental unsoundness, considered first in its legal relations, afterwards psychologically. The two most important points in which law and medicine come into contact in regard to the state of the mind are in reference to the capacity to make a will, and in the matter of insanity as a plea in criminal cases, and accordingly we find a good deal of attention bestowed upon both these departments. Some remarks under the latter head, suggested by the trial of Christina Edmunds, seem to us to be of especial interest. The writer, noticing the very scanty medical evidence for the defence which had been produced, attributes it to our system of leaving the medical evidence for the defence to be provided entirely by the defendant, so that, as he says, under this system a poor man has no chance. Again he objects to the practice, adopted by the Home Secretary in this case, of referring to two independent medical inspectors after the trial for a report as to the condition of the patient, a report given and often adopted without any sworn testimony, though it may be in direct opposition to the con-

[1] Wharton and Stillé's "Medical Jurisprudence." Fourth Edition, 3 vols. Philadelphia: Kay and Brother, 1884.

clusions arrived at by the judge and jury at the trial. Objectionable as the system is in theory no doubt, yet in practice we find that it works very well, and a good many insane persons have escaped the gallows in this way, notably so on two recent occasions. The chief fault we should find with the plan is that the inspectors are appointed at the wrong time ; their investigation and report ought to be completed *before* the trial and not *after* it, but we fear that we shall have to wait some time for so useful a reform as this.

In the second half of the volume, in a long chapter, the author deals with general moral insanity, which he refuses to recognise as entitled to separate consideration apart from mental disease. The Guiteau case is dealt with in a footnote by long extracts from the judge's summing-up and from one of the daily papers, which leave no doubt as to Dr. Wharton's views as to Guiteau's sanity. This, by the way, is treated of under the head of politico-mania. Other forms of monomania, such as pyromania, kleptomania, erotomania, oikeiomania and pseudonomania, are each in turn alluded to, but to none will the author grant a separate entity, when unsupported by other evidence of mental disease. Not even dipsomania will the author admit to be more than a physical disease ; he regards it as "but a type of other appetites for excessive food, drink and stimulus. These appetites spring from the animal nature, and if they are yielded to in excess, brutalize him who yields to them, making them the sources of great domestic and sometimes cruel wrong. From the very nature of such indulgences they are to be controlled chiefly, if not exclusively, by the fear of results. Hence it is to such men the greatest mercy that the law should be firmly expressed. To declare them emancipated from the law on the ground that dipsomania is a moral insanity, is cruel to them as taking away the only barrier between them and ruin." We are not altogether prepared to subscribe to these doctrines, and would prefer to make some distinction between the inebriate, whose craving for drink appears to be irresistible, especially when there is an inherited tendency to the condition, and the simple drunkard.

The second volume deals with the poisons, and is edited by Drs. Robert Amory and E. S. Wood. In an introductory chapter they discuss the evidence of poisoning, and the method of making an examination of the dead body at some length. The classification of Orfila is followed out in the main, the poisons being divided into irritants, narcotics, and narcotico-acrids. Throughout, the volume bears traces of the most careful revision ; and the numerous references to, and quotations from, the important cases of the last few years testify to the pains that have been bestowed upon it in order to bring it up to date. In this respect there is only one thing we have to complain of, and that is that the cadaveric alkaloids have not been deemed worthy of a separate chapter. In all cases of alkaloidal poisoning in the future, the prosecution will doubtless be confronted with the theory that any alkaloids present are of the nature of ptomaines. The appendix contains between fifty and sixty of the most important cases of poisoning that have been recorded either in America or in Europe, in many instances reported at great length. The one feature in which this volume differs from almost every other work on the subject is that, being addressed to lawyers, it makes no mention of the subject of treatment. This is much to be regretted, and we think unwise, for it is certainly the business of the advocate in a criminal charge of poisoning to be familiar with the ordinary treatment that would be adopted in such a case. For although it would be no defence to a charge of murder by poisoning to say that the deceased would have recovered with better treatment, yet it often supplies some essential evidence ; and even if it would seem to have no importance in the case, we should bear in mind the fate of the medical witness who appealed to the judge to know if he was bound to reply to a question as to what his treatment had been, and got the unanswerable remark, "Yes, unless you have reason to think that your treatment killed the patient."

The third volume is edited by Dr. Francis Wharton, and consists of four books. The first of these deals with pregnancy and infanticide, and we may note in passing that as regards protracted gestation, the author regards 276 days as the normal period, and would allow a margin of four weeks as the limit to which prolongation may occasionally extend. This limit is not universally adopted throughout the States, for we observe that in Pennsylvania, if a married woman has a child within a year of the possibility of access on the part of her husband, there will be a presumption that the child is legitimate. The second book deals with questions regarding the sex, with sterility, impotence, and rape. On the latter subject the possibility of a rape being committed on a person whilst under the influence of an anæsthetic is considered at some length, and a case in point is fully reported. The third book includes wounds and injuries, death by violence, and the signs of death. The remaining half of the volume is occupied with the legal aspect of some of these points, such as rape, homicide and infanticide, and a few other points, including a very good chapter on medical malpractice, and another on insurance. The volume concludes with a section on defects of vision, in which is given a long extract from the writings of Joy Jeffries on colour vision. In bringing this necessarily very brief review to a close, we would express most emphatically the high opinion we entertain of the work. Although it is addressed rather to lawyers than to medical men, yet those who take an interest in medical jurisprudence will find it full of valuable and useful information. The printing and binding are all that could be desired.

Post-nasal Catarrh and Diseases of the Nose causing Deafness; by Edward Woakes, M.D., London, Senior Aural Surgeon to the London Hospital, &c. H. K. Lewis. 1884, pp. 212.—The range of diseases to which the naso-pharynx is subject is comparatively small and it cannot be said that any have been altogether neglected by the writers of the several treatises upon nasal disorders, or even by the authors of the general surgical text-books. In his present work, Dr. Woakes presents, however, some remarkable physiological theories in explanation of the various morbid conditions occurring in the throat and nose, in addition to his views as to the diagnosis and treatment of the diseases themselves. A part of his book, the introductory chapter, has already appeared before the public, the main points contained in it having been presented to the International Congress in

1881. It consists of observations upon the correlating and reflex functions of the sympathetic system; and it is precisely these observations which form the text for the author's subsequent explanations of the various naso-pharyngeal phenomena of which he treats in the following two hundred pages. In his remarks upon chronic catarrh he makes known his views upon this point with unmistakable clearness. He would "emphasize the fact that chronic catarrh, whether nasal, or pharyngeal, or both, is essentially a neurosis. To avoid ambiguity associated with this term, I would point," he says, "to the superior cervical ganglia of the sympathetic chain as the specific seat of this neurosis." His belief upon the subject, roughly summed up, would appear to be this: that as all parts of the body are placed, as it were, in telegraphic communication with each other, it is probable that any force influencing any one part must of necessity cause some molecular change in some other part, through the particular ganglion or chain of ganglia with which these parts are in nearest relation. The subtle influence of *chill*, therefore, affecting, say, the lumbar spine, may be telegraphed from one set of ganglia to another, radiating its influence from each, until it arrives at a point of "lesser resistance," such as the nose, in which it may call forth the pathological changes grouped together under the name of a cold in the head. This apparently scientific explanation is so attractive at first sight that one is almost tempted to accept it without enquiry as to the facts upon which it is based. "The central fact in connection with this subject is one . . . to the effect that gunshot wounds of the brachial plexus . . . cause the subject of them to fall down, consciousness being sometimes, but not always, momentarily lost." Coupling this with the well-known fact that pressure exerted within the middle ear, either from within or without, produces similar symptoms, the author arrives at the conclusion that it is all owing to the correlating influence of the lower cervical ganglion, through the branches which it sends to the vertebral artery. Assuming the correctness of his view that influences affecting any part of the sympathetic nervous system may affect any other, it becomes difficult, except by means of his *locus minoris resistentiæ* theory, to account for this strict localisation of so severe a nerve shock as we must assume to be caused by a gunshot wound. The evidence afforded by vivisection appears to us not less difficult of acceptance when we take into consideration the profound disturbance which must occur, even in a lowly organised nervous system, in the simple (?) process of exposing the inferior cervical, or any other sympathetic ganglion to the gentle titillation of the experimental physiologist's needle. Where phenomena are of necessity so difficult to prove, or even to explain, it may perhaps be said that we must be content with the theories that we have until some more daring investigator tempts us to others that we know not of, and our contentment may be confirmed by the reflection that our practice must still be guided solely by the *facts* at our disposal, theorize we never so wisely. Turning then to the practical side of Dr. Woakes' book, we find many useful hints for the guidance of the "Catarrhally Predisposed," prefaced by an alarming account of the pre-catarrhal state and the complex chemical changes which produce it. Clear instructions are given for the practical examination of the nasal and pharyngeal cavities, while the various morbid conditions, and occasional anatomical peculiarities to which they are subject are fully dealt with. A chapter on post-nasal vegetations should be especially noted as one of the most complete accounts at present published of a condition which is far too frequently overlooked in practice. The presence of these troublesome appendages in the vault of the pharynx gives rise not unfrequently to a permanent expression of countenance unbecoming to either sex, and quite preventable by an early recognition and treatment of the disease. The book is closed by a chapter on nasal stenosis and its treatment. Although the confident tone which pervades the theoretical part of his work may cause irreverent merriment on the part of his all-practical readers, and notwithstanding the polysyllabic magnificence of the periods in which many of his most common-place facts are related, we have no hesitation in recommending Dr. Woakes' book as a useful treatise upon a subject of more than ordinary interest.

Specificity and Evolution in Disease; by W. J. Collins, M.D., B.S., B.Sc. Lond., &c. London: H. K. Lewis, 1884.—This pamphlet, which is a reprint of a paper read before the Abernethian Society, St. Bartholomew's Hospital, in the early part of the present year, deals with a question which is not merely of great interest, but of great practical importance. Are the so-called "specific" qualities of a disease, such as small-pox or typhus, immutable in their character, always pre-historic in their origin, eternal in their unchangeableness? Guided by the light of analogy and of what we have lately learned with regard to the ætiology of several of the infectious maladies, few would be prepared to answer such a question in the affirmative. On the other hand, our ignorance is still so profound, and such knowledge as we do possess on the subject is so fragmentary and ill-assorted, that we are not yet justified in accepting as proven the full-blown theory of the evolution of disease, as Dr. Collins would put it before us. Specificity may not be the power which the older writers almost revered; nor are we yet convinced that the *same poison* "may produce different diseases in different individuals;" that "the chief (if not the only) element in determining specificity is. . . . the predisposition of the individual;" or that "predisposition may be so strong that, apart from contagion, it may develop disease *de novo;*" simply because, although evidence is adduced in favour of these not improbable propositions, its weight scarcely yet amounts to proof. The subject is too large, and such facts as we possess are too few and too isolated to allow of our accurately gauging their proportions. Research is most important, for facts are above all, and in the first place, needed. Argument is useful by stimulating enquiry, and, so long as it does not limit free-agency, by pinning us down to what we have no right, at present, to regard as more than hypothesis. The author complains of the generally loose employment of the word *specific;* he himself appears to use the word "poison" in the several senses of morbid germ, *materies morbi* (particulate or otherwise), cause of disease, origin of disease, the disease itself, and a something which is not essential to the disease (as developed *de novo*, for instance,) a sort of pathogenic phlogiston; which invests certain passages with some obscurity. The *brochure* is interesting and suggestive; it undoubtedly contains several germs of considerable value, and it will be well alike for patient and practitioner in the future if their careful culture result in the evolution of a creed presenting the specific characters of originality and unquestionable truth.

Handy Guide to Public Health; by Thos. Whiteside Hime, M.B., B.A., Medical Officer of Health of Bradford, and formerly of Leeds. London: Baillière, Tindall, and Cox, 1884. pp. 207.—This is a mere compilation, but such a compilation as was greatly needed. Here, in a volume not much bigger than the visiting list, we have a complete digest of sanitary law, and a mass of useful facts, figures, and formulæ. The former is all that could be desired; the whole of those clauses of the Public Health Act, 1875, which in any way concern the Medical Officer of Health are printed in full, with notes critical, suggestive, and explanatory, mostly taken from the annotated editions by Glen and others, which, as the editor of this *pocket* guide observes, are indispensable in the library; abstracts of all other sanitary laws or sanitary clauses of factory and such-like Acts down to the bakehouses regulations, which were passed on the last day of the Session of 1883; and a chronological arrangement of all the sanitary legislation, Local Government Board circulars, parliamentary papers, returns, reports, &c., with the numbers by which they are distinguished, which will be found almost the most useful feature of the book. The rest of the work gives the impression of hasty preparation. It consists of tables, &c., on the metric system, statistics, facts and figures relating to water, sewage, dietetics, meteorology, and a number of other subjects gleaned from Parkes, Glaisher, &c. Some are such as could not be spared, a few are of doubtful utility, and might be replaced by others more recent and trustworthy, and we miss much that would agreeably enhance the value of the work, but one sentence, following an obsolete table of Letheby's for estimating the dilution

that milk has undergone from its specific gravity, is so extraordinary that we can only think Dr. Hime has failed to convey his meaning:—"Any sample indicated as bad by the lactoscope (of Professor Feser) and densimeter, the examination only taking a few minutes, should be sent to the analyst." As the words stand, they suggest the opening by the Medical Officer of Health of samples which had been sealed in the presence of the seller, a procedure at once unjustifiable and illegal, and which would at once put him out of court. Probably Dr. Hime had a vague notion of those frequent unofficial examination of milks from all the dairies in a district which some analysts make unknown to the seller, following any suspicious indications by taking fresh samples with all the formalities required by the Act. As so many prosecutions have miscarried from omission of a single word, even from the incantation to be uttered while the sample is being taken, or of the form referring to subsequent decomposition, these should not have been left out of an abstract, however short.

Report of the Delancey Fever Hospital, Cheltenham, for the Year 1883.—The institution with which this report deals is a small hospital for infectious diseases partly on the pay system, patients being received gratuitously only from the Cheltenham General Infirmary, those in the public wards pay two shillings per day (the guardians paying for paupers), and those in the private wards five shillings. The total sum received last year from or on account of patients was 389*l.* 10*s.*, from the Urban and Rural Sanitary Authorities 100*l.* each, from dividends 207*l.* 16*s.* 11*d.* out of a total income of 1,293*l.* 4*s.* 10*d.* The cases admitted last year were nearly all scarlatinal, but during the ten years it has been in existence, small-pox has broken out in Cheltenham on twenty separate occasions, though every case having been removed within 48 hours, and the other members of the family re-vaccinated, the disease has never taken on an epidemic character. There is no compulsory notification or power of removing fever cases in Cheltenham, and of the 48 or 49 scarlatina cases received last year, only two were sent in by the guardians and seven by the Local Authority. If the poor could be induced or compelled to avail themselves of its benefit as freely as the well-to-do classes have done hitherto, it might be as successful in the repression of other fevers as it appears to have been in that of small-pox.

Water and Water Supplies and Unfermented Beverages; by John Attfield, Ph.D., F.R.S., &c. International Health Exhibition Handbooks. London: 1884.—More than half of this agreeably written handbook is devoted to a description of the natural history, the chemical and physical properties and the varieties of water; the remainder being occupied with chapters treating of aërated drinks, tea, coffee, cocoa, chocolate, and milk. If there is nothing original, new or striking in the compilation, it is nevertheless to be warmly commended for clearness of exposition, and for the considerable amount of reliable information condensed in a small volume sold at a cheap price.

ABSTRACTS AND EXTRACTS.

SPONDYLOLISTHESIS.

A recent number of the *Archiv für Gynäkologie* (Band xxii., Heft. ii.), contains a valuable and interesting paper by Dr. A. Swedelin, of St. Petersburgh, on a case of labour with spondylolisthesis. He begins by expressing the opinion that this deformity is not so rare as was at one time supposed. In his case the patient was healthy until the age of 17, when she fell backwards in such a manner that the edge of a table caught her in the lower part of the back. Soon after the fall she suffered from pain in that region, which, in spite of treatment, continued severely for half a year; and in the course of this time a backward inclination of the trunk was acquired, the patient feeling as if without this inclination she would fall forward. About a year after the fall she noticed greater prominence of the iliac crests, and protuberance of the lower belly. She was married at 25 and soon became pregnant. At about four months' pregnancy she consulted her medical man who found retroversion of the gravid uterus. He twice reduced the displacement, but it each time returned, and at four and a half months' pregnancy she miscarried. In her second pregnancy retroversion again occurred at the beginning of the fourth month, and this time was successfully corrected by a Hodge's pessary. The presence of pelvic deformity having been ascertained, labour was induced at the 36th week, and terminated successfully, the child, a male, as big as one at full time, being born without assistance. The mother recovered well and was afterwards carefully examined and measured. There were no deformities elsewhere than in the pelvis. The patient stood upright with the knees slightly bent, complete extension of them being painful to her. The gait at first glance presented nothing peculiar, but when carefully watched was seen to be of the "rope dancer type," one foot being put down almost exactly in front of the other and the heel of one foot occasionally striking the other as it passed it. The figure of the patient presented the peculiarities pointed out by Neugebauer as characteristic of spondylolisthesis. "Shortness of stature, especially diminution in the trunk, and therefore apparently disproportionate length of leg; a deep lumbo-dorsal hollow in the spine, sinking of the thorax into the false pelvis; wider separation than normal of the hip bones as compared with the trochanters; the presence in the lateral contour of the trunk of an angle above the iliac crests; width of the hips above owing to greater separation of the innominate bones; but smallness of the buttocks each being bounded by a deep lateral hollow; projection backwards of the upper part of the sacrum, and of the posterior superior iliac spines." The sinking downwards of the thorax leads to the formation of a very marked cutaneous fold, running parallel to the lower ribs, which Neugebauer calls the thoraco-pelvic fold. Dr. Swedelin's case was further complicated by slight scoliosis. The sacrum was also bent, so that its third spine was unusally prominent. This our author attributes to the pressure of the body-weight in sitting. Neugebauer's description of spondylolisthetic subjects as seen in profile also applied exactly to Dr. Swedelin's case: "characteristic saddle-shape of the loins; shortening of the trunk; coincidence of increased lumbar lordosis with diminished pelvic inclination; flattened buttocks; pendulous belly; abnormal visibility from the side of the mons veneris; apparent uprightness of trunk." On palpation the muscles of the lumbar spine could be felt as thick rolls on each side, and between them the last dorsal and upper two lumbar vertebral spines could be felt indistinctly, and the third and fourth lumbar spines not at all; the fifth lumbar spine could be very plainly felt above the base of the sacrum. The upper eleven dorsal spines were easily made out. The pelvis externally looked very large, the ilia well developed, the crests almost horizontal, the spines strongly projecting. The symphysis pubis was high, and the pubic arch narrow. The base of the sacrum was apparently displaced backwards. Above it the last lumbar spine was felt, and in a line with it two other bony projections, one on each side, evidently the inferior articular processes of the last lumbar vertebra. By abdominal examination the spine could be so easily palpated in the interval left by the separation of the recti

that the inter-vertebral substance could be distinguished from the bodies of the vertebræ. It was made out with certainty that the outline of the projecting vertebral mass was not gradually lost in the structures attached to it at the sides, but was sharply defined, leaving an angular hollow on each side. Internal examination gave at first no indication of narrowing of the pelvis; and the finger, pressed up as usual towards the sacral promontory, would fail to detect any. But when the finger was passed up in the axis of the pelvic inlet, then it encountered the displaced lumbar vertebra, sharply projecting, not merging into lateral masses at the side; below it an angular hollow, bounded by the surface of the last lumbar vertebra and the upper part of the sacrum. Both the true and the diagonal conjugate diameters were shortened, the diagonal measuring 10 centimetres, the true, or rather apparently true, conjugate $7\frac{1}{2}$ centimetres, and the transverse diameter of the outlet was only 7·5 centimetres. There was therefore no doubt that the case was one of spondylolisthesis, produced in the way Neugebauer has described, viz., by fracture of the inter-articular part of the vertebral ring." Dr. Swedelin gives complete measurements, which we need not quote further. He then considers the obstetric management of these cases; and has collected and examined from this point of view every case of labour with spondylolisthesis that he could find. The first point of interest in his own case, clinically, is the occurrence of retroversion in each pregnancy, which the author attributes to increased pelvic inclination, bringing the intra-abdominal pressure to bear on the anterior surface of the organ, aided by the deformity which prevented the uterus from righting itself. The course of labour in these cases has before been studied, and on the basis of the recorded cases, by Schwing and by Perroulaz; but Swedelin has been able to collect a larger number of cases than either of these authors. He draws the following conclusions as to the course and management of labour in the spondylolisthetic pelvis—(1) Slight degrees of narrowing of the pelvis by olisthesis, in which the conjugata pseudo-vera (that is, the measurement between the internal surface of the symphysis and the anterior surface of the olisthetic vertebra) exceeds 9 centimetres ($3\frac{1}{2}$ inches) do not as a rule cause any hindrance to the parturient process; (2) Moderate contraction, conjugata pseudo-vera of $7\frac{1}{2}$–9 centimetres (3–$3\frac{1}{2}$ inches) permit labour at term without very great difficulty; (3) Higher degrees, 6·5–7·5 centimetres ($2\frac{1}{2}$–3 inches) cause labour to be attended with great danger to the child, but the prognosis for the mother is favourable; (4) Extreme contraction of conjugata pseudo-vera when it is under 6·5 centimetres ($2\frac{1}{2}$ inches) will not allow the head to pass without diminution in its size; (5) In multiparæ the prognosis of an approaching labour is worse in proportion to the difficulty of the preceding one. From these propositions Dr. Swedelin deduces the following therapeutical rules—(1) With a conjugata pseudo-vera under 7 centimetres premature labour should be induced in the 32nd week; (2) With a pseudo-conjugate of between 7 and 8 centimetres it should be induced in the 36th week; (3) When the dimension mentioned is between 8 and 9 centimetres, pregnancy may be allowed to go to term, but if the patient be feeble, or unfavourably circumstanced, it is better to induce labour in the 36th week; (4) With a conjugata pseudo-vera over 9 centimetres there is no reason for inducing labour; (5) If the patient has been allowed to go her full time, and the pseudo-conjugate is between 6 and 7 centimetres, then the case must be treated according to its individual features, either by craniotomy and cranioclasm, or by Cæsarean section; (6) With a conjugata pseudo-vera below 6 centimetres, Cæsarean section is indicated. Appended to the paper is a valuable bibliographical list of the literature of the subject.

DISEASES OF CHILDREN.

Significance of certain Symptoms in Diseases of Children.—In an interesting paper in the *Deutsche Medicinische Zeitung*, Dr. S. M. Politzer enumerates certain symptoms to which he attaches great importance in the establishment of a diagnosis. Dr. Politzer has had great experience in children's diseases, having been for many years director of the Children's Hospital at Vienna. (1) *If the cry of the child has a decidedly nasal sound*, we should always look for retro-pharyngeal abscess, never omitting when we hear this peculiar nasal or guttural sound to touch the posterior wall of the pharynx with the finger. If abscess is present we feel the characteristic tense, fluctuating swelling. (2) *An expiration, which is greatly prolonged while inspiration is normal and no other disturbance of breathing is present and no dyspnœa exists*, is a sure sign of chorea major. The same may be said of a greatly prolonged, very loud, and forcible expiration, sounding like bellowing. This symptom of bellowing expiration has a typical character, it may happen for many weeks daily at the same hour, recurring every 7 to 10 seconds, and it usually consists of a single prolonged and forced expiration, or of a single expiratory roar. For months sometimes this symptom is the only sign of chorea major. It is easily cured by large doses of quinine, but it is very prone to return and become accompanied by other symptoms of chorea. (3) *The symptom of high thoracic, continually sighing inspiration*, indicates the beginning of debility and paralysis of the heart. This symptom makes its appearance before cyanosis or paleness of the face, weak, thread-like pulse, and coldness of the face and of the extremities develop themselves. Contrary to stenotic respiration, as observed in croup, pneumonia, and œdema of the glottis, this sighing inspiration is not characterised by forced contractions of the diaphragm, and is not of abnormal type, but is accompanied by a laborious rise and fall of the thorax and neck, and instead of a croupy noise by continuous sighing and moaning. No matter how the paralysis of the heart may be produced—by the so-called heart poisons, as quinine, salicylic acid, pilocarpin, and digitalis, or otherwise, the symptom is pathognomonic of the disease, and wherever it is met with precautionary measures should be resorted to. In some cases of acute fatty degeneration of the heart the same symptom has been observed. (4) *Expiration decidedly diaphragmatic and accompanied by a whistling sound of high pitch*, denotes bronchial asthma. A similar symptom is also met with in croup, but here it is associated with stenotic forcible inspiration. The same is observed in capillary bronchitis, but the noisy breathing through the nose, the rapid development of pulmonary emphysema, the sudden appearance and disappearance of intense dyspnœa, and the fact of the latter and the whistling remitting during deep sleep, will prevent error. (5) *The existence of noticeable pauses between the end of each expiration and the beginning of the next inspiration* indicates severe catarrh of the larynx, and proves the absence of croup. In consequence of the enormous aspiration of air in croup, inspiration and expiration follow each other immediately, while in laryngeal catarrh a pause takes place between the two acts, as the physician can convince himself by bringing his ear near the mouth of the patient, or by carefully watching the diaphragm and the neck, both of which are at rest during a pause. (6) The so-called *stridulous expiration*, if present at birth and continuing day and night with rare interruptions of ten or fifteen minutes' duration, and usually considered by anxious mothers and the uninitiated a dangerous and ominous symptom, has neither diagnostic nor any other importance, being perfectly innocent, and generally ceasing of its own accord after the lapse of a few months. There are also some symptoms facilitating the early recognition of certain *diseases of the brain* in children: (1) *A remarkable drowsiness, not accompanied by fever or any*

other symptom, and continuing for a long time (one to three days) often precedes basilar meningitis; vomiting, fixed pain in the head, and even a slow, irregular pulse have not the same great significance as this sleepiness, as they may also happen in other maladies. Certainly, stress must be laid upon the absence of fever, for many infectious diseases begin in children with a peculiar drowsiness, always associated, however, with more or less high fever. (2) *Prominent anterior* fontanelle, if reaching decidedly above the level of surrounding parts, and if tense and of such resistance as not to yield under pressure, proves the presence of an exudation within the cranium, or an increase of the contents of the latter, and is met with in persistent meningitis of the convexity, in cerebro-spinal meningitis of the epidemic variety; in acute, essential, and chronic hydrocephalus (here tense, but not necessarily very prominent); in great tumours; in echinococci; in acute œdema of the brain; and in intra-meningeal apoplexy. In simple congestion, in acute hyperæmia of the brain, the fontanelle is always soft and depressible. If it is very prominent, almost wedge-shaped, and unyielding, without the least trace of penetration, the diagnosis of apoplexy of the new born, and a large intra-meningeal extravasation of blood can be made with certainty. (3) *Remarkably slow motion and long fixation of the balls of the eye, with a vague look into space, accompanied by a peculiar slow opening and closing of the eyelids* is a sign of commencing basilar meningitis. Next, *peculiarities of the cry* in children aid us in diagnosis. (1) *Violent, loud, penetrating cries, lasting two or three minutes, accompanied by great anxiety, as expressed in the face, and setting in almost typically one or one and a half hours after the child has fallen asleep* are a symptom of nightmare, and easily cured by quinine, which should be administered one or two hours before retiring. (2) *Periodical crying, lasting five to ten minutes, and happening several times during the day, but occasionally only at night*, draws attention to spasm of the bladder, if colic and dyspepsia are not present, and is cured by an emulsion of lycopodium, with or without belladonna. (3) *Frequent crying during defæcation, dread of the act, and decided opposition of the child to going to stool*, indicates the existence of fissure of the anus. Constipation should be avoided in such cases, and zinc ointment with belladonna locally applied. (4) *Violent, very painful, and nearly continuous crying, with restless throwing of the head from side to side* on the pillow, and frequent grasping of the head by the hands, are generally indicative of otalgia, and otitis. (5) *Crying, lasting days and weeks, greatly increased on touching or moving the extremities*, accompanied by continuous and enormous perspirations and fever, denotes the presence of acute general rachitis, while the same symptom, without the sweating, but with decided emaciation, proves the existence of hereditary syphilis, and that the case is hopeless. Of a great number of other symptoms, the following only are mentioned by Dr. Politzer, as they are of more common occurrence, and of greater importance. If the children are remarkably weak, and little inclined to moving about after apparently innocent complaints of very short duration, *spinal infantile paralysis* may be expected. The least disturbance of hearing after acute disease must be carefully inquired into, as it might be caused by *circumscribed meningitis* at the base of the fourth ventricle. Depression of psychical activity in small children, after grave infectious diseases, frequently forms the commencement of *acquired idiocy*. Here strychnine has proved an invaluable remedy. Ossification of the bones of the cranium, postponed longer than normal, denotes commencing *rachitis*. An anxious, stiff action in walking, sitting, rising, &c., and pain expressed in the face of children who do not yet walk, when they are lifted or laid down, are met with in commencing *spondylitis*. When children with a very large closed cranium vomit for weeks everything they eat, we have the proof that *acute hydrocephalus* is being added to the former chronic disease.—*Philadelphia Medical Reporter*, July 12.

Infantile Summer Diarrhœa.—Just at the present time, when we have been reading every week of the enormous mortality from infantile diarrhœa, any paper would be read with interest that attempted to deal with this important subject, and especially so when it comes from one who has already shown by his writings on children's disorders that he is entitled to a hearing. Dr. J. Lewis Smith has given his views in the July number of the *Archives of Pediatrics*. After premising that the breast milk is the proper and best food for an infant, he proceeds to discuss what is to be done when this is not to be had. The best substitute he declares to be peptonised milk; this closely resembles human milk in appearance, and its casein is either digested or left in an easily digested state, and not liable to be precipitated in thick curds in the stomach as is the case with cow's milk. Farinaceous food is to be avoided in the case of young infants, as they cannot digest starchy matters; if however these have been previously converted into glucose the objection no longer holds good. Dr. Smith's plan for accomplishing this is to take some wheat-flour, packed dry in a firm muslin bag and placed in water, so as to keep it constantly covered, and let this be kept over the fire for three or four days; at the end of this time the outer part is peeled off leaving a lump behind looking something like yellowish chalk. This should be scraped into a powder; about a tablespoonful of it should be mixed with twelve tablespoonfuls of water and heated. For a child of six months old half a teaspoonful of extract of malt should be added to a tea-cupful of this, and a little salt may be put in. This may be given alternately with the peptonised milk. White of egg or a little raw beef juice may be added if more nourishment seems to be called for. Change of air, when the child lives in a crowded city, is always very beneficial. It will be seen that these excellent regulations are intended for the children of the well-to-do, and not for the poorer classes. In the August number of the same periodical, Dr. Smith gives the following formula as the best for making an artificially humanised cow's milk;—One gill of cow's milk, fresh and unskimmed; one gill of water; two tablespoonfuls of rich cream; two hundred grains of milk sugar; one and a quarter grain of extractum pancreatis; four grains of sodium bicarbonate. This to be placed in the feeding bottle, and then heated for twenty minutes. For the acute thirst that infants sometimes suffer from, Dr. Smith orders ice water with a little whisky or brandy, the rule being to allow two or three drops of the stimulant for each month in the age, every second or third hour.

Acute Yellow Atrophy of the Liver.—This affection is so rare in children, that every case deserves to be carefully studied. Dr. Hyla Greves having met with a typical case in an infant of 20 months has recorded it in the Liverpool *Medico-Chirurgical Journal* for July, and has taken the opportunity to pass in review the symptoms of the disease as seen in children, and to offer some general remarks on the nature of the affection. There is nothing in his case that calls for special notice; the child was ill for some days, and under observation before any symptoms of a serious nature made their appearance. The liver was at the commencement enlarged and not tender; later on, when it began to get smaller, it became very tender. Examination of the liver after hardening showed a marked increase in the connective tissue, especially around the portal vessels; a large number of free oil globules also were present between the cells. In many places all trace of liver structure had disappeared, and the small bile ducts appeared to be choked with epithelium which had undergone fatty degeneration. The course of the disease he divides into two stages: during the first of these there is gastric catarrh with enlargement of the liver; the symptoms in the later stage may be grouped under the head of nervous, including headache, drowsiness, rigors, convulsions, delirium and coma. Hæmorrhages from the mucous surfaces are common, the pulse and temperature often remain normal or subnormal until late in the disease, the liver decreases in size and becomes very tender, vomiting is almost constant and the urine is acid, the urea and phosphates being greatly diminished, and albumen, leucin and tyrosin frequently present. As to the pathology of the disease the following are the considerations which he puts forward in support of the theory that it is a general disorder. The epithelium of all the glands in the body shows some parenchymatous degeneration, and the muscles of the heart and some of the voluntary muscles are in a similar state. The resemblance

of the disease both to yellow fever and to phosphorus poisoning supports the idea of its being not a local disease. The almost absolute identity with some cases of icterus gravis suggests the notion of some general blood poison, and the discovery of micro-organisms in the liver and in the blood during life points in the same direction.

Spina Bifida.—Professor Demme has collected all the cases of spina bifida which have been treated in the Jenner Children's Hospital at Berne up to the year 1882 From out of a total of 36,148 patients, there were 57 cases of spina bifida—31 female and 26 male children. In two of the cases, two earlier children of the same family, and in three cases, one previous child had suffered from the same deformity. In 29 of the 57 cases, the deformity occurred in the first born child; in 17, the second child; in 11 cases later children. In 13 cases besides the spina bifida, there was club-foot, in 3 cases hare-lip, in 1 case ectopia vesicæ. In 31 of the cases the parents were quite strong and healthy, and nothing untoward during pregnancy occurred to account for it; in 16 of the cases, one or both parents appear to have been rather weakly; in 2 cases the mother was the subject of hare-lip, in 3 cases the father had congenital talipes. In 5 of the cases, the tumour was situated in the cervical region, in two in the cervico-dorsal, in 13 cases in the dorsal region, in 2 of the dorsal cases there were two tumours; in 17 cases in the lumbar region; in 11 cases in the lumbo-sacral region; and in 7 cases in the sacral region. A careful examination of the 57 cases showed that in 3 cases, the hydro-meningocele, was apparently not associated with division or defect of the vertebræ, but consisted in a prolapse of the membranes through the inter-vertebral foramina. In 19 cases, the meningocele had escaped through defect of certain of the vertebræ, and in the remaining 35 cases, in addition to the meningocele, there was also myelocele. The majority of the simple hydro-meningoceles occurred in the cervical and dorsal regions, while on the other hand the great majority of cases which occurred in the lumbar and sacral regions were examples of hydro-meningo-myeloceles. 17 of the 57 cases were complicated with more or less hydrocephalus —no case of Rachischisis anterior (cleft of the bodies of the vertebræ) had, as yet, been seen at this hospital—25 of the 57 cases were operated upon, of which 15 died, 7 cases recovered, 3 were discharged incurable. Of the 32 cases not operated upon, 11 died between the 8th and 14th days, 9 between 15th and 22nd days, 5 between 23rd and 30th days, 3 between three and four months; one at five months, one at eight months, one at twelve months and one at the end of the second year. Death took place in the 32 non-operated cases either from marasmus, or rupture of the sac, or through suppurative arachnitis, or from inter-current diseases such as broncho-pneumonia or capillary bronchitis. From the foregoing statistics, Professor Demme draws the following conclusions as to prognosis and probable effects of treatment. Antiseptic treatment notwithstanding, the operative treatment of mylo-meningocele has always been less favourable than that of pedunculated meningocele. The differentiation therefore between the two forms is of great importance from the operation point of view. The following are the diagnostic points (though not absolutely reliable) of a hydro-meningocele:—(1) absence or inability to detect, a cleft, or smallness of the cleft into the vertebral canal; (2) a thin pedicle; (3) transparency of tumour; (4) absence of umbilication of the tumour; (5) absence of paralysis of limbs, rectum or bladder.—*Twentieth Report of the Jenner Children's Hospital in Berne.*

Hæmaturia as a Symptom of Renal Cancer.—Dr. Leibert, of New York, after relating a case in point, the chief interest of which lay in the fact that the infant, aged ten months, died within three weeks of the appearance of the first symptoms—severe and unexplained vomiting, and diarrhœa—collects together 50 recorded cases of primary "cancer" of the kidney in children under ten years of age, for the purpose of testing the value of hæmaturia as a symptom of this disease. He quotes from various treatises the diagnostic value which authors attach to hæmaturia, and the wide divergence justifies his statement, "that the contradictions in respect to hæmaturia in renal cancer increase with the number of works on the subject." Of the 50 collected cases, in nineteen hæmaturia occurred, whereas in 75 cases in adults, this symptom only occurred in 23 cases. *Thus the symptom is more common in children than in adults.* The relative frequency of its occurrence is not without interest; in the first year of life it occurred only twice in 12 cases; in the second year of life, three times in 8 cases; in the third year of life three times in 6 cases; in the fourth year, four times in 7 cases; in the fifth year, three times in 7 cases; in the sixth year, once in 3 cases; in the seventh year, twice in 3 cases; and in one case in the eighth year of life. According to these figures then, the symptom is commonest in the third, fourth, and fifth years of life. Apart from the more frequent occurrence of febrile diseases, it is not improbable that the numberless accidents to which these ages are subject may contribute something to this result. The symptom appears to come on in the early stages more frequently than in the later stages; not infrequently, it is the earliest appreciable symptom; it is generally sudden and unexpected in its onset; in only four of the 50 cases was it accompanied by pain; the hæmorrhage is often profuse. The question is discussed whether the early onset of hæmaturia, common in renal cancer, can be regarded as at all diagnostic. In nearly all cases, the hæmorrhage is profuse and unaccompanied by colic. When there is pain, the pain ceases so soon as the hæmaturia comes on. In nephrolithiasis, on the contrary, the pain is usually during or subsequent to the bleeding, which is never profuse, and there are generally other signs of existing pyelitis. In cancer cases, at first there is no pain on pressure; in the latter there is generally pain or pressure in the region of the kidneys or ureters. When the hæmorrhage ceases, if other signs of pyelitis are absent, and there is no sediment of any kind in the urine, Gerhardt teaches that the case is probably one of renal cancer. The absence of wasting is nowise diagnostic, for this only sets in after the tumour has become diagnosable by its size.—*Jahrbuch f. Kinderheilkunde*, Vol. xxi., Part 3.

The Relation of Over-Nutrition after the Acute Fevers of Childhood to Bone Disease.—Under this heading Dr. Jacobi (*New York Medical Journal*, August 9th) draws attention to the facts, known to the laity as well as to physicians, that children not only appear very tall after having gone through a severe illness, and particularly through a severe infectious disease, but that they are really taller than before the sickness, and that they grow very rapidly for a short time during and after such infectious disease. The growth or tallness is not only apparent from the patient having become thin, but by measurement it can be shown that there is an actual increase of stature. The body becomes taller by an elongation of the bones; the bones grow by a rapid proliferation of the cartilage which separates the epiphysis from the shaft. If the bone grows, it must be in consequence of a nutritive process, which may become an irritative process in that neighbourhood. And the question arises whether high fevers, and infectious fevers particularly, have not the effect of producing such irritative disorder as proves under certain circumstances a cause of increased nutrition. Observation showed that after all cases of infectious disease in particular, the epiphyses and adjoining cartilages were very hyperæmic; and where there was much blood there was at least an opportunity for over-nutrition. Thus it is that after most infectious fevers not only the epiphyses are apt to grow thicker, but also the diaphyses to grow longer, in consequence of the nutritive irritation of the cartilage (and periosteum). In cases in which the nutritive disorder, the hyperæmia, was not limited to its physiological condition—where it was a little more than physiological—it became pathological. In most cases the over-nutrition and the resulting growth ceased after a while and returned to the normal state; but in others they were carried to such an extent as to become pathological and to cause necrosis. Dr. Jacobi has seen quite a large number of cases of this description. Such over-nutrition of the epiphyses is the cause of one of the forms of so-called "growing pains." Growing pains occur very frequently after a severe illness, and especially after a severe attack of an infectious fever, and are due to a local hyperæmia which may proceed to inflammation. The other

forms of "growing pain" are either rheumatic or neuralgic in character.

Tuberculosis.—Professor Demme, in Berne, defines tuberculosis of children like that of adults, as a specific infection disease, associated with the entrance of Koch's bacillus into the affected organ. In order that this infection take root, a soil favourable to the development and propagation of the bacillus is necessary, thus supporting the view of individual predisposition to tubercular disease. This predisposition can be transmitted from generation to generation. Thus, of 366 cases of primary visceral tuberculosis, this hereditary predisposition was found in 71·8 per cent.; in 823 cases of joint and bone tuberculosis, in 69·6 per cent.; in 692 cases of lymphatic glandular tuberculosis, in 65·4 per cent.; and in 51 cases of lupus, the hereditary tendency was found in 37·2 per cent of the cases. This individual predisposition can further be acquired through certain external life influences, especially through suffering from infectious diseases, such as measles, and more rarely whooping cough. Thus of individuals, not the subject of any hereditary taint, who had suffered from measles, 6·8 per cent. got tubercular pneumonia; 8·1 per cent. joint tuberculosis; 8·7 per cent. lymphatic glandular tuberculosis; and 3·9 per cent. lupus. As to the mode of entrance of the bacilli into the organism, that by inhalation or by ingestion was by far the commonest at all ages; nevertheless, in any given case, the difficulty of locating the first tubercular starting-point rendered this observation, seeing the smallness of the figures, not very reliable. As regarded the extremities as places of possible entrance for the bacillus, it appeared that eczematous and impetiginous eruptions, so common in childhood, and the subsequent localization of the bacillus in the bones of the extremities after possible injury, ought certainly to be reckoned with. As a rare mode of infection, Dr. Demme records four cases (without hereditary tendency) in which milk of tubercular (Perlsucht) cows appeared to be the source of infection. Two cases of congenital tuberculosis are also given.—*Twentieth Report of the Jenner Children's Hospital in Berne.*

The Treatment of Hysteria in Children.—Seeing the number of cases of hysteria which are computed to date from childhood, estimated by one observer at one-fifth of all the cases, and by others at an even higher proportion, Dr. Forchheimer has thought it desirable to call attention to the importance of treating hysteria in childhood. This he has done in an admirable article in the *Archives of Pediatrics* for June. The first point is, that neuropathic parents will have children liable to the same complaint; such children should be educated under the guidance of a medical man. He would take care that the child had plenty of exercise of a proper kind, massage and shampooing when the child was quite young, gymnastics, riding, swimming later on. Exercise in the open air must be insisted upon, and the child must be removed from its parents; the importance of this last point it is impossible to exaggerate. It would be well that the attendant chosen should undertake the teaching of the child, but if he must be sent to school, it should be a large school where there were lots of other children, and the hours were not too long. The study of music should be absolutely forbidden, for Dr. Forchheimer believes that all musicians are more or less neurotic. The diet should be carefully chosen, albuminous food, easily digested, starchy material, young vegetables and fruit, cooked, or if raw quite ripe. Medicine is not often beneficial, but some preparation of iron might be indicated. This is entirely preventive treatment; should a child have had an attack with symptoms of hysteria, the plan recommended by Weir Mitchell in adults is to be adopted. The child must be removed from friends and relations; and have a nurse, who will at first leave the child to itself as much as possible, even without toys; a strict milk diet should be ordered and massage combined with daily galvanism. As the child gets better, the restrictions may be lessened.

Antipyrin in Children's Practice.—As the result of numerous trials of this new anti-febrile substance in children at the Erlangen polyclinic, Professor Penzoldt (*Berliner Klinische Wochenschrift*, July 28) arrives at the following conclusions:—(1) It is to be regarded as a very suitable means for diminishing the temperature in the febrile affections of children. (2) In proper doses it effects a diminution by several degrees during several hours. (3) The diminution of the pulse does not always correspond to that of the temperature. (4) Its influence upon the general condition of the patient is usually favourable. (5) Vomiting only sometimes attends its employment; but when this persists the antipyrin must be given in an enema. (6) The proper dose to begin with is as many decigrammes as the child is years old, repeated three times, at intervals of one hour. If this dose does not suffice for the production of a decided effect, then it must be increased decigramme by decigramme. In an enema we may give at a single dose from 3 to 6 times as many decigrammes as the child has years. (7) After long use of it the child's system sometimes gets accustomed to the remedy.

Ephemeral High Temperature in Young Children.—In a paper published under this title, in the *New York Medical Journal*, July 19, Dr. H. N. Read, after relating several cases in which the maximum temperature ranged from 103·5° to 106°, while the patients were quite well in twenty-four hours or less, remarks on the analogy presented by such cases to those of abnormally high temperature occasionally observed in adults, as a sequence of injury to the nervous system. The points in favour of such sudden and ephemeral pyrexia in infants being due to disturbed nerve inhibition, and not to interference with the other heat-controlling factors (tissue metamorphosis, and heat conduction or radiation) are briefly, non-interference with the secretions of bowels and kidneys, &c., in proportion to the degree of fever; the skin more moist and natural than in ordinary fever; marked disturbance of the nervous system; and the ready subsidence of the high temperature on the exhibition of a nerve sedative—chloral being *the* remedy to administer. The chloral treatment of these cases is also recommended by Da Costa and by Wilson.

Cystic Hygroma of the Neck.—Dr. Plath, of Stettin, records a case successfully treated by free incision after punctures, several times repeated, had failed, the last of which appears to have set up inflammation and suppuration within the sac. The child, about one month old, was well nourished and otherwise healthy. The hygroma was situated below the jaw, around the neck, reaching as low down as the manubrium sterni, and was multilocular. The day following the last tapping, there was a little redness of the skin, the child was feverish and restless. There being no improvement at the end of a week, it was decided to incise the cysts, which was accordingly done, and a quantity of healthy pus from one, and semi-coagulated reddish brown fluid evacuated from another; they were then irrigated with a 2½ per cent. carbolic solution, and then filled with iodoform gauze. There was very little reaction, and the places were quite healed within the month.—*Jahrbuch f. Kinderheilkunde*, Vol. xxi., Part 4.

Congenital Absence of Left Wing of Diaphragm.—The specimen was obtained from the body of a coloured infant. The stomach, the left lobe of the liver, the greater part of the small intestine, and the cæcum were all in the left pleural cavity. The left lung was the size of a hickory nut, and emphysematous; the right lung was well developed. —*New York Medical Journal*, April 12th, 1884.

Feeding Children on Masticated Food.—Dr. Vanderbeck, Professor of Hygiene in Philadelphia, calls attention, in the *Medical Reporter*, August 16, of that city, to the fact that in the far south of the United States, and especially in Texas, it is a common practice for mothers to chew the food for their children, spit it out, and feed them with it. These people, too, are so firmly set in their ways, that any remonstrances are likely to be indignantly opposed. He asks for information from the practitioners of those parts whether, apart from the disgust such a practice should excite, the health of children so fed suffers, and whether their comparative mortality is greater.

Mental Alienation in Young Children.—Professor Max Leidesdorf, in a paper which he read at the Vienna Medical Society (*Wiener Medicinische Wochenschrift*, June 28 and July 5), observes that at the beginning of the present century Carus entirely denied the existence of psychical disturbances in children; and that it is only of late years, by means of the works of Brière, Conolly and Maudsley and their successors, that the subject has been placed in its proper position. He has himself for some years past paid much attention to it, in consequence of his having so often found that a proper appreciation of certain cases and certain forms of insanity in the adult can only be obtained by investigations carried back into early childhood. But if it is now certain that psychical disturbance may occur even before the fourth year of age, yet its relative frequency cannot well be determined, the statistics of lunatic asylums simply showing that admissions take place only rarely prior to the eighteenth year of age. By the census of Prussia for 1880 it was shown that there were 66,345 insane, or 1 to 411 adult inhabitants, while there was but 1 insane child to 1,400 children. These statistical returns do not give even an approximative statement of the prevalence of the affection in children; but if we abstract cases of idiocy with or without epilepsy, dependent upon anomalies in the development of the brain, it must be confessed that insanity as it occurs in the adult is rare in childhood. But separate elements of such a condition of a rudimentary and transitory nature are frequently met with in the form of shortly lasting attacks of depression or excitement, alarm, and hallucinations. Professor Leidesdorf has often met with, in children not more than 5 years of age, transitory but frequently recurring conditions of depression, the causes being generally hereditary predisposition, loss of blood (*e.g.*, in pertussis), or preceding severe diseases, such as typhus, measles, scarlatina, &c. He refers to the case of a girl 5 years of age, who, although damaged hereditarily, was, as regards her intellect, in quite a normal and satisfactory condition, and yet was frequently seized on going to bed with attacks of groundless alarm, which lasted an hour or so, but leaving her in a normal condition. Sometimes, too, a hypochondriacal disposition is observed in children 4 or 5 years old, and this is especially the case when parents pay an exaggerated attention to their children's health, magnifying every trifling ailment into a serious disease, and managing by their excessive care to transfer their own anxiety to those who are the objects of it. On other occasions it is the witnessing severe illness, or on the death of relatives, which saddens the child; and Professor Steiner refers to the case of a boy 8 years of age, who, having seen a sister die of phthisis, from that time was the victim of the extremest fear of becoming a similar sacrifice. On the other hand, Professor Leidesdorf has met with examples in boys from 6 to 8 years of age of great or even maniacal excitement with destructive impulse, which however lasted only for some hours. In one case, the maniacal attack came on at the same hour every evening; but after some months the disposition entirely disappeared. A more frequent form of transitory psychical disturbance is hallucination of a disagreeable or terrifying nature, a typical form of which is well known to children's doctors under the name of *Pavor nocturnus*. Children from 3 to 8 years of age, in a perfectly normal condition, after some hours sleep are suddenly awakened, a prey to the greatest anguish, with pallid face and fixed look. The entire body is bathed in sweat, they utter loud screams, do not recognise those who surround them, and are the victims of hallucinations, which sometimes take the forms of dogs or serpents threatening them. These attacks sometimes come on at the same hour. At the end of an hour or less they fall asleep again, and on awakening are quite unaware of the occurrences of the night. Another type of transitory psychical disturbance is constituted by natural somnambulism, a condition which presents a great similarity to certain disturbances of consciousness which are sometimes met with prior to, or after, fits of epilepsy. These attacks of somnambulism occur not only at night in the midst of sleep, but also in the daytime. Peter Frank relates a case of this somnambulism brought on in a little girl through the operation of sudden fear, and Professor Leidesdorf gives interesting particulars of another girl, 7 or 8 years old, who was liable several times a day to hypnotic attacks, during which she exhibited many actions remarkable for the regularity of their execution. At the end of some months these attacks entirely disappeared. Besides these transitory conditions other psychoses may be observed in children 5 or 6 years old, which persist with variable intensity during the rest of life. To these belong the *ideas of constraint* (*Zwangsvorstellungen*), which are psychical representations entirely independent of the will, and which those surrounding the child take for simple creations of the fancy. Dr. Leidesdorf's experience in this matter has been gathered in part from children 7 or 8 years old, and in part from adults, who suffering from these images traced them back to early childhood. These manifestations differ from delirious ideas, as, contrary to what happen with these last, their subjects are quite aware that they have to do with an abnormal condition. The patient tries to repel these ideas, but in the struggle between the will and the ideas it is the latter that is always victorious. Some adults have been tormented by this condition from their earliest childhood, and have found their studies and occupations greatly interfered with; so that this double mental exertion, a part of which consists in withstanding these images, may at last tire them out into alienation. Prolonged mental affection in the proper sense of the word, such as we meet with in the adult, is very rare in children under 14 years of age, and on account of its rarity Professor Leidesdorf cites some cases from his own and others' practice for which we have not space. The more grave forms of neuroses are frequently accompanied by psychical disturbances, which last as long as the neuroses themselves. This is observed in epilepsy, chorea, and infantile hysteria. Hysteria, accompanied by psychical disturbance, is met with in children from 5 to 14 years of age; and, according to the author's observations, it is the gravest form of hysteria which usually attacks children. Another form of disturbed mental condition observed sometimes in young children is a disposition to simulation, a remarkable case of which is related, and another quoted from West. Professor Leidesdorf terminates his paper by some observations on moral insanity which, in its rudimentary stages, is not unfrequently met with in children.

GENERAL CORRESPONDENCE.

THE ÆTIOLOGY OF SPINAL CURVATURE.

[To the Editor of the Medical Times.]

Sir,—It is true my quotation from your editorial summary of Mr. Noble Smith's lecture on Postures in School, &c., was not taken from the paper read at the Congress upon School Hygiene, because I limited my criticism to that part of the lecture which attributed the causation of spinal curvature to muscle fatigue, brought on by the alleged too strict discipline at school, as "walking in file," and "sitting up." I will now quote the exact words which formed the basis of my remarks, as I wish to express correctly what was said and written. "Marching in file is very necessary work for soldiers . . . but it is not a proper routine exercise for girls." "They (schoolmistresses) try to keep their pupils straight, but then their plan defeats its object, and they produce the very evils that they are attempting to avoid." "Enforced 'sitting up' is probably the commonest cause of spinal curvatures." I must again express opinion that the spine suffers much more from laxity of school discipline than the reverse. I observe that Mr. Keetley, in the *British Medical Journal* of this week, also "challenges the gentlemen who advocate the muscular origin of scoliosis."

I am, Sir, yours, &c.,

FREDERICK CHURCHILL.

South Kensington,
2nd September, 1884.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 28th, 1884:—

Howard Davies, The Ash Grove, Pontypridd; Hanway German, Maywood, Sevenoaks; Charles Robert Mortimer Green, St. Simon's Vicarage, Morpeth, P.C.; Tamiz Uddin, 3, Pump Court, Temple, E.C.; Henry Gordon Oliphant Wharry, 6, Gordon Square, W.C.; Edward Wood, Oaklea, Lansdown Rd., Tottenham.

The following gentleman also, on the same day, passed the Primary Professional Examination:—

George Julius Congdon, Guy's Hospital.

Admiralty.—In accordance with the provisions of Her Majesty's Order in Council of April 1, 1881, Fleet-Surgeon William Shute Fisher, B.A., M.B., has been placed on the retired list, with permission to assume the rank and title of retired Deputy Inspector-General of Hospitals and Fleets. Staff-Surgeon John Buckley has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet. The following appointments were made on Saturday, August 30th:—George W. Low, Surgeon, to the *Alexandra*, additional; Mr. Albert P. Wells, to be Surgeon and Agent at Douglas, Isle of Man; Mr. J. Claque, to be Surgeon and Agent at Castletown, Isle of Man. The following appointments were made on September 3rd.: Surgeons—Charles W. Hamilton and Henry Harris, to the *Alexandra*; Edward Ferguson, to the *Rapid*; John Ottley, to the *Vernon*; William H. O'Meara, to the *Repulse*.

Army Medical Department.—Deputy Surgeon-General Francis Holton, M.B., retires on temporary half-pay. The date of appointment as Surgeons of the Surgeons on Probation named in the *Gazette* of August 26, 1884, is August 2, 1884, and not as therein stated.

King's College Hospital.—The Queen has given a donation of 100*l.* to the funds of this hospital.

Hospital Saturday.—The last meeting of the Board of Delegates of the Hospital Saturday Fund, prior to the eleventh annual street collection, which will be made on the 6th inst., was held on Saturday last at the central office of the fund, 41, Fleet Street. Mr. J. M'Gregor presided. There was a full attendance of delegates. The secretary (Mr. R. Frewer) reported with regard to the workshop collection carried on since May last, with the sanction and support of the principals in 20,000 industrial establishments of the metropolis, and which formed the main and most important branch of the work of the fund, that it was likely to produce this year a sum considerably in excess of the amount realized in preceding years. A circular, signed by Mr. S. Morley, M.P., the president, and Mr. H. N. Hamilton Hoare, the hon. treasurer of the fund, had been sent to each of those 20,000 firms reminding them of the near approach of Hospital Saturday, on and after which the sums collected would have to be paid. A result of this reminder was the receipt of many applications for more collecting sheets and boxes. Among those who had received the collection sheets were the whole of the metropolitan railway—the companies having termini—and dock companies, the Post Office authorities, the City and Metropolitan Police the Fire Brigade, the Railway Clearing House, and, for the first time, the Salvage Corps. Mr. Noble, the manager of the Midland Railway Company, had made two further applications for sheets, as the number at first supplied was found to be wholly inadequate. Fifteen hundred specially printed sheets, distributed according to the instructions of the central office, had been supplied to the Post Office authorities. The Chief Commissioner of the Metropolitan Police had intimated his willingness that the police should afford protection and all necessary assistance to the lady collectors at the different stations as in previous years; and Major Bowan, of the City Police, besides promising that the police under his control should give especial attention to the lady collectors, had undertaken to place constables on duty at the central office from midday on Saturday next until midnight on the following Monday, when it was expected the counting would be completed.

International Health Exhibition.—A special demonstration was given on Tuesday afternoon in the Hygiene Laboratory by Mr. Cassal, F.I.C. (the public analyst for High Wycombe), on arsenic, in connection with the manufacture of articles for household use. After alluding to the isolation of arsenic as an element by Brandt, in 1773, specimens of metallic arsenic and of its oxide were shown, and it was demonstrated experimentally how volatile they are. In the state either of fine dust, of metallic particles, or of the volatile gas, they are highly poisonous. As they are used not only in the manufacture of wall paper of other colours besides green, in calico printing, in gloves, stockings, carpets, &c., and even in fly-papers, it was pointed out how important it is to have convenient tests for its presence so as to avoid the use of articles in which it has been introduced. In the case of paper or material that can be torn up and worked into a pulp, the warming of it with hydrochloric acid, or with sulphuric acid and common salt will free the chloride of arsenic if there is much arsenic present, and the dark colour produced by this is at once manifest. How easily any one may do this was illustrated. A more delicate test, known as Marsh's, is the employment of hydrosulphuric acid. It was shown to be by no means complicated, but it can hardly be called adapted for popular use. Mr. Cassal especially mentioned that in many household books such things as orpiment and realgar are recommended for various uses. They are, however, only names of compounds of arsenic, and should be avoided. A second demonstration in the Hygiene Laboratory was given by him on Wednesday, when the subject was "Examination of Drinking Water." The object was to show simple tests by which people may themselves examine their own drinking water in relation to its more markedly dangerous pollution. Hard waters, that is those which contain much salts, are injurious, and the simple test for them is the fact that they decompose soap. With a soap solution of known strength the hardness of different waters can be told by the amount of solution that has to be added to produce a permanent lather. The poisonous metals most frequently met with are lead and iron, for it is a fallacy, though a popular one, that much iron in water is beneficial. Sulphate of ammonia will show if either of these are present, as a dark tinge is produced in the water. The addition of hydrochloric acid will reveal which of the two is the cause of the colour, as it dissolves the lead precipitate but not the iron. As a test for organic matters present, a simple way is to evaporate the water till a residue is left, and submit this to ignition. The production of a dark colour indicates the presence of carbon, and a smell as of burnt feathers the presence of nitrogen. Permanganate of Potass (Condy's fluid) is a good and simple test, but the strength used should be known, or unreliable results will follow. As a test for ammonia, which should not be present in large quantities, "Nessler's test" is excellent, and this can be had of chemists of the standard strength. A complete examination of water requires, of course, a skilled analyst. The practical illustrations which accompanied the demonstration were clear and showed the simplicity of the processes.

Hospital Accommodation.—At a meeting of the Metropolitan Asylums Board on August 30th, a discussion took place on the subject of the precepts issued by the Board. It arose upon the receipt of a letter from the Guardians of St. Mary, Islington, containing a resolution passed by that body declaring "that taking into consideration the enormous and continual increase in the precepts of the Metropolitan Asylums Board, the amount of such precepts having nearly quadrupled since 1880, and also that one-half of the accommodation in the hospitals under the jurisdiction of that Board is at present unoccupied, this Board earnestly protests against any further hospital being erected by the Metropolitan Asylums Board, fully believing such a course to be quite uncalled for, and therefore an unnecessary burden on the ratepayer, this Board is of opinion that the Hampstead Hospital is a very desirable place for a fever convalescent hospital, and could be used accordingly, and that the proposed hospital at Winchmore is not required."—Mr. C. H. Galsworthy, the chairman, said he hoped Islington was not going to follow the example of the

City Union, from whom, a year or so ago, they received many resolutions condemnatory of the action of the managers—resolutions which were about as inaccurate as this one. After a great deal of trouble they had assembled a conference of guardians, but eventually the whole thing collapsed. The resolution sent by the Islington Guardians was not only misleading, but absolutely untrue. Speaking of the precepts of the managers generally, it stated that they had quadrupled since 1880. Such was not the case; and as to the statement that one-half of the hospital accommodation was not used, that was the old nonsense of which they had had so much. At the present time it might be so, but if fever increased at the present rate, they could not say how long this might be. As the resolution of the Islington Guardians had been sent to all the local bodies throughout the Metropolis, he should depart from the usual course of moving that it be simply acknowledged, and propose—"That the letter from the Guardians of the parish of St. Mary, Islington, be acknowledged, and that it be pointed out to the Guardians that the statement contained in their resolution regarding the precepts of this Board is entirely erroneous, that the expenditure of the Board in the year ended Lady Day, 1881, was 249,482*l.*, that the estimated expenditure for the year ended Lady Day, 1883, was 572,439*l.*, and that a very large amount of the increase in the amount has been caused by the establishment of the camp at Darenth to meet a severe epidemic of small-pox in the metropolis." Mr. Robins seconded the resolution, which was adopted.

Cholera Prevention.—At the meeting of the International Congress of Hygiene, a new view was put forward respecting Mahomedanism and the cholera, by Dr. Zoeros Bey, who quoted the passage in the Koran, declaring that "cleanliness is an article of faith." Mahomet had ordered prayers five times a day; but no prayer was acceptable which was not preceded by ablutions and accompanied by movements not unlike gymnastics. For a hot country and an indolent people these were eminently hygienic measures. Armed with the 8th and 9th chapters of the fifth book of the Koran, the sanitary reformer could work unhindered in any Mahomedan country. Bad hygiene in the East was the result of ignorance and opposed to religion.

Prevention of Blindness.—At the International Congress of Hygiene a few days ago, the report was read of the Commission appointed at the last International Congress to adjudge a prize of 80*l.* to the author of the best essay on diseases of the eye, offered by the British Society for the Prevention of Blindness. Four German, one English, and two French essays had been sent to compete for the prize, which was adjudged to one of the German works. The first prize was awarded to Dr. Ernest Fuchs, Professor at the University of Liège. A prize of 40*l.* from the French Society for the Prevention of Blindness was adjudged to the second best essay, also written in German, and the English essay came third on the list.

Total Abstinence.—Mr. Joseph Livesey, who died at Preston on September 2nd, in his 91st year, had throughout his long life devoted himself most intensely to the temperance movement, of which, in the form of total abstinence, he may be said to have been the founder, having on the 1st September, 1832, drafted for the signature of himself and six others the first teetotal pledge. From that date for a period of about 50 years his labours and sacrifices on behalf of his favourite cause were without parallel, comprising the delivery of thousands of lectures and addresses, and the circulation of millions of pamphlets, tracts, and leaflets, the last of these being his annual temperance address on New Year's Day, 1881.

Corporal Punishment in Board Schools.—At Southwark Police-court, on August 29th, Thomas Atkins, head master of the Addington Road Board School, Lambeth, appeared before Mr. Bridge on a summons charging him with unlawfully assaulting and beating Alfred James Sheridan, aged seven, one of the boys attending his school. Mr. Blanchard Wontner was counsel for the defence. Complainant's mother stated that the boy came home and complained to her that he had been thrashed for nothing by the defendant with a stick. She examined him, and finding several severe bruises, she went to the defendant's house to complain, and he ran away and locked himself in. She then gave information to the police, and had the boy examined by the divisional surgeon. Alfred James Sheridan, a weakly-looking but intelligent boy, stated that he was called by the assistant master to "stand out" when another boy snatched his book and they had a scuffle. Then the defendant came and beat him with a pointer. Dr. Evans, divisional surgeon of police, said that he had been called to examine the complainant, and he found several severe bruises on the hips, such as might have been inflicted by the pointer produced. In answer to Mr. Bridge, he stated that they were bruises which must have been caused by considerable violence. On cross-examination by Mr. Wontner, witness expressed the opinion that the pointer said to have been used by defendant was not a proper instrument to be used for inflicting corporal punishment on a schoolboy. Mr. Wontner said that the defendant had inflicted no more punishment than was demanded by the boy's disobedience, and called the assistant master, who told the magistrate that the defendant was a most amiable and kindly teacher, and stated that the boy had stopped the whole school by his conduct, and had three times distinctly refused to leave his seat at the request of the head master. In answer to Mr. Bridge, this witness admitted that the defendant dragged the boy off his seat and gave him a little of the pointer on the way. The Rev. William Henry Tickel also gave the defendant a high character for kindliness and considerate conduct as a teacher, and said that his management of the school was most effective. Mr. Bridge asked if any representative of the School Board was present to state what were the regulations with respect to corporal punishment, upon which a gentleman in court stated that there were no such regulations excepting that no teacher save the head master was allowed to inflict corporal punishment, and the matter was left entirely to his discretion. Mr. Bridge, in giving judgment, said that nobody could be more convinced than he was of the evil that might be caused by the conviction of a schoolmaster for punishing a child improperly. He was one of those who believed that corporal punishment judiciously inflicted was a very necessary and wholesome punishment for boys of a certain character, but the question which he had to decide in the case was whether the boy had been properly flogged. He did not say one word as to whether the boy did or did not deserve corporal punishment, but what he had to determine was whether the chastisement inflicted was such as a schoolmaster ought to give. In his opinion, the complainant had been subjected to more punishment than his offence demanded. A schoolmaster stood in relation to his pupils in the position of a parent, and for disobedient boys he should have a cane or a birch, to be used by him, not in temper or anger, but in a cool and collected fashion for the purpose of maintaining discipline. In this case the instrument used was not such as ought to have been employed for the punishment of a delicate boy of the tender years of the complainant, and had not the master received a good character, he would have subjected him to a severe penalty. As it was, he thought the justice of the case would be met by the imposition of a fine of 20*s.* and 2*s.* costs.

Sanitary Prosecutions.—At the Stratford Petty Sessions, on Wednesday, William Lester, a builder, of Ashville Road, Leyton, was summoned at the instance of the Leyton Local Board for that he did, between July 21 and Aug. 21 last, erect a house in Ashville Road and occupy it without constructing a covered drain for the effectual drainage of the said house to connect with and empty into the sewer of the Leyton Local Board, which was within 100 feet of the house in question. Mr. Vincent, the clerk to the Leyton Local Board, who appeared to prosecute, said that these proceedings were taken under the 25th Section of the Public Health Act, which looked upon this offence as a very serious one, the penalty imposable being £50. The defendant had submitted plans for the building of the house in question in which a perfect system of drainage was shown, but the house was now finished and there was no means of drainage whatever, so that anything thrown on the ground would have to soak through. The main sewer ran down

the centre of the Ashville Road, and with this the drains should be connected. The house was found occupied by the defendant himself, who, when told the requirements of the local board, said he would at once move out and have the work performed, but he had not done so. Mr. Dawson, the surveyor of the local board, gave formal evidence in support of the charge, and stated that when he spoke to the defendant he said he was trying to raise the money to get the drains put in, but if he did not he would leave the premises. The house in question was perfectly uninhabitable. There was no system of drainage and no water was laid on. Water had to be obtained from the houses opposite. Defendant had built property in the same road, and had received notices from the local board in respect of that, and he had complied with the notices, so that he well knew the requirements of the board. Defendant admitted the offence, but pleaded that he was in financial difficulties, having lost a considerable amount of money. He had built the house for a person who did not take it, so he occupied it himself; but assured the Bench that in so doing it was with no intention of infringing the Act. He had five children, but now he had removed these from the house, and as soon as he could raise the money he would have the work done as required by the local board. Mr. Vincent pointed out that the defendant did not remove his children till he had received the summons. Mr. Powell said this appeared to him to be a case of poverty, and asked Mr. Vincent if they would give the defendant time to do the work. Mr. Vincent said they did not object provided the defendant had the work done. They took action because the house had been occupied without any system of drainage; if the house was unoccupied the work could be done at the defendant's leisure. Ultimately defendant promised to quit the house at once, and then Mr. Vincent agreed to an adjournment for a fortnight. Defendant had to pay the costs of the day, £1 17*s.* 6*d.*

The Sanitary Institute.—The autumn Congress of the Sanitary Institute of Great Britain, which has the Duke of Northumberland for its President, will be held this year at Dublin, and the programme of the proceedings has been issued. The President of the Congress is Sir Robert Rawlinson, C.B., who will open the Congress with an inaugural address on Tuesday, the 30th instant, and the proceedings will last until the 4th of October. The Congress is divided into three sections—the first, "Sanitary Science and Preventive Medicine;" the second, "Engineering and Architecture;" and the third, "Chemistry, Meteorology, and Geology." Of the first section, the president is the Registrar-General for Ireland, Mr. Thomas W. Grimshaw, M.A., M.D. In the section of "Engineering and Architecture," the president is the Engineering Inspector of the Local Government Board for Ireland, Mr. C. D. Cotton, C.E.; and the president of the section of "Chemistry, Meteorology, and Geology" is Mr. C. A. Cameron, M.D., the City Analyst and Superintendent Medical Officer of Health for Dublin. The sectional meetings and the general meetings will be held at Trinity College, where the opening address will be delivered on Tuesday evening by Sir Robert Rawlinson. On Wednesday morning the actual work of the Congress will commence with the address of the president of the first section, and the remainder of the day will be taken up with the reading of papers and their discussion, while a *conversazione* will be held in the evening. The business of the second section will be taken on Thursday, October 2nd, and in the evening a lecture will be delivered to the Congress by Dr. Alfred Carpenter on "Education by Proverb in Sanitary Work." On Friday, after the third section, the closing general meeting of the Congress will be held. Arrangements for excursions will be made for the Saturday.

A New Commission on the Cholera.—The Academie de Médicine has just appointed a new Commission or Committee of its members for the purpose of drawing up a report on the measures which should be adopted against the cholera. The names of those chosen are as follows:—MM. Brouardel, Rochard, Proust, Pasteur, Noel Gueneau de Mussy, Fauvel, Marey, Besnier, and Legouest. In the meantime the discussion on the general subject of the cholera pursues its weary course in the Academy.

The Monument to J. B. Dumas.—M. Pasteur has just communicated to the Academie des Sciences a letter from His Majesty Don Pedro, the Emperor of Brazil, expressing a wish that his name should be entered for 1,000 francs on the subscription list for the monument to be erected to the memory of the great chemist, J. B. Dumas.

Items from Vienna.—Hofrath Prof. v. Bamberger has met with a severe affliction, which has excited general sympathy, in the loss of one of his sons, Richard Bamberger, a medical student, who, three weeks ago, set out on a long pedestrian excursion, and has never since, in spite of numerous searches, been heard of.—Wilhelm Ritter v. Braumüller, of Vienna, died recently in his 77th year. He was the head of the great publishing firm Braumüller and Co., which has held for so long a period the most distinguished place in relation to medical and scientific literature. He was an honorary doctor of Würzburg, Knight of the Third Class of the Order of the Iron Crown, and the possessor of numerous other tokens of the esteem which his remarkable undertakings had won for him. His name will always hold a high position in the history of medical literature and of the book-selling trade.

German Medical Students in the Summer Session of 1884.—The following return has just been published:—There were in the entire number of Medical Faculties of the German Universities 7,190 students, viz., 6,780 Germans and 410 Foreigners, distributed as follows: Berlin, 1,154 (1,065 G., 89 F.); Munich, 848 (804 G., 44 F.); Würzburg, 706 (671 G., 35 F.); Leipzig, 608 (573 G., 35 F.); Greifswald, 459 (454 G., 5 F.); Breslau, 421 (415 G., 6 F.); Freiburg, 365 (352 G., 13 F.); Bonn, 289 (286 G., 3 F.); Halle, 282 (277 G., 5 F.); Heidelberg, 267 (202 G., 65 F.); Marburg, 210 (200 G., 10 F.); Königsberg, 267 (243 G., 24 F.); Tübingen, 224 (216 G., 6 F.); Strasbourg, 191 (156 G., 35 F.); Göttingen, 189 (176 G., 13 F.); Giessen, 181 (181 G.); Kiel, 175 (171 G., 4 F.); Erlangen, 171 (163 G., 8 F.); Jena, 162 (154 G., 8 F.); Rostock, 71 (71 G.).

Notes of Practice.—Under this heading Dr. C. P. Clark contributes to the *New York Medical Journal* for June 7th, 1884, some of the results of his therapeutical experience. "Most of us old doctors" he writes, "follow methods which we know for certain to be sound and valuable, but which are neither generally taught in books or schools, nor generally followed or even known of by the profession at large. . . . However derived, to go down to our graves without putting them on record is to leave important truth to perish with us, and thus somewhat fail in duty to the generations. . . . In opposition to the stereotyped warnings of the text-books, the best of all treatment for that often wearing and wearying affection *varicocele* is said to be a weakish truss; pressing upon the spermatic veins, the pad takes the place of the deficient valves, and supporting the superincumbent columns of blood, not only greatly or entirely relieves the sufferer, but by continued application frequently effects a permanent cure of the real malady as well as of the many non-resistent diseases which its discomfort seems often to make the patient believe he is labouring under. When the bars of honour in our profession are still further let down, and the 'go-as-you-please' principle becomes our law, I propose to advertise a list of the cases of Bright's disease, heart disease, dyspepsia, hypochondriasis; in fact almost everything but reflexion of the womb and fissure of its os, that I have cured by the gentle pressure of a truss in the spermatic veins where they pass over the pubic bone. I was my own first case." *Powdered rhubarb* applied thickly twice a day is an effectual remedy for the superficial indolent-irritable ulcerations which occur about in-growing toe-nails, stumps, over varicose veins, and the like," but it may be that iodoform deserves to supplant it." For *tinea tarsi* and *porrigo favosa* full doses of chlorate of potass, *e.g.*, about a drachm per diem for a child, acts like a charm even in severe cases: it renders the scalp-shaving, poulticing, &c., usually adopted in the latter disease quite unnecessary. The compound *tincture of iodine*, given internally, effects a speedy cure in the intolerable itching of acute lichen and of urticaria. In prurigo and other like itchments of the skin it exercises

no such virtue. Aided by a calomel ointment it is of value in acne simplex, but it is not masterful. *Opium* is admittedly a valuable adjuvant to iodide of potass in the treatment of exophthalmic goitre; but opium, in doses of perhaps one grain per day, is also most useful in uncomplicated bronchocele. The *liquor ferri subsulphatis*, diluted with water to one half strength, is an almost sovereign remedy in diphtheria, applied locally with care and thoroughness twice a day. It is not a caustic, but "it is a mighty astringent, and seems to operate in the silly way of puckering the life out of the diphtheritic deposit and sucking or squeezing the bad juices out of the living parts adjacent." It is not claimed as a specific, but only that it is a very good thing. *Phlyctenular corneitis* owns a similar origin to that of the eczema or "cold-sore" often seen on or near the lip in evident intermittents; and for it quinine is the grand remedy, the more effective the earlier employed. "The attending photophobia is charmingly controlled by wiping the moistened outer surface of the upper eyelid with a stick of nitrate of silver till a good smarting is produced. The persistent and distressing giddiness of which now and then a patient otherwise apparently well complains, is successfully treated by the *compound tincture of bark*. *Phelgmasia dolens* is effectually controlled and speedily cured by opium, combined with a little calomel or other mercurial, given to the point of making the patient quite comfortable. Infants should always be fed from a spoon or cup, not from a bottle. "This is the only way to keep them from being overfed, which, with the refusal to them of a free supply of water that idiots still practice, kills three-fourths of the hand fed children that die. Always water should be offered before milk is given, otherwise to quench thirst, and not from hunger, they will drink more of the latter than they can digest, and a bellyful of trouble will ensue."

Manufactured Pills.—From a paper by Dr. French, in the *Philadelphia Medical Reporter*, we extract some observations of interest. In all cases in which medicines can be administered in the pill form he thinks that "manufactured" pills are greatly superior to the pills prepared in ordinary dispensaries, and especially in regard to powerful remedies which can in this way be more exactly given in small doses. Their soluble coat too preserves the pills from oxidation, and he refers to instances in which the contents of phosphorus pills have been found soft and unaltered after having been made for one or more years. These pills are found of great convenience in country practice owing to the exactness of their composition and easy portability. Speaking of the numerous cases of dyspepsia met with in city practice, Dr. French observes that when these cannot be relieved by dietetic and hygienic remedies alone, they require the drugs given them to be in the "most pleasant and unobjectionable form, as there is no class of patients so prone to find fault with their medicines." A very useful pill in such cases is made of aloin, grain $\frac{1}{3}$, strychnia $\frac{1}{60}$, given at bedtime, which produces a mild and thorough laxative effect, unloading the stomach and bowels, removing the fœtid breath, the furred coating of the tongue, and the cerebral congestion. Too active cathartics are very objectionable. Pepsin and bismuth, which are frequently combined for dyspepsia, should always be given in pill form, as they undergo decomposition in mixtures. The dyspepsia arising in malarious districts is well treated by pills containing quinine, or a combination of quinine, iron, and arsenic. Iron is a most valuable remedy in dyspepsia, when given towards the termination of a course of treatment. Active business men, brain workers, and the subjects of mental anxiety and overwork, frequently suffer from what is termed "nervous indigestion." Phosphorus, in small doses, given immediately after meals, is the proper remedy, and this should be given in the manufactured pills as the combination of phosphorus by ordinary dispensing is a difficult matter in producing uniform diffusion. When prescribing medicines so powerful that from a two hundredth to a twenty-fifth of a grain is given, the exact amount in each pill, unless many are prepared together, can scarcely be secured. These pills also form an excellent means of administering medicines to children.

Professor Schweninger.—The Berlin correspondent of the *Allgemeine Wiener Medizinesche Zeitung*, in his recent letters, draws attention to the remarkable silence observed by the Berlin medical press as to the career and proceedings of Professor Schweninger, who having succeeded in curing some of the ailments of Prince Bismarck and his son, which had resisted the efforts of distinguished members of the Faculty, has become not only an indispensable and prized member of the Bismarck family, but has been through its potent influence installed in the Faculty Ordinary Professor of Diseases of the Skin, without the Faculty having been consulted upon the matter. The extraordinary thing seems, that this body has not resisted the appointment beyond publishing the simple statement that it has had nothing to do with it. This is somewhat in contrast with the spirited conduct of the Paris Faculty, when the Emperor Napoleon III., then in his zenith, sought to place a distinguished Berlin ophthalmologist in the Faculty *proprio motu*. That Faculty unanimously declared that it would resign, and the appointment was abandoned. A Bismarck is formed of a tougher and more unyielding substance, and no doubt will have his way in the matter. The worst of it is, that in the present case there seems to be nothing in the new professor's history that will confer any honour on the Faculty. He was originally a privat-docens of pathological anatomy at Munich, and assistant to Prof. Buhl, and also became an assistant of the now famous gynæcologist, Geheim-Rath Schroeder, when professor at Erlangen. For some reason not stated he was excluded from the Munich Faculty, and finding success in practice impossible there, he repaired to Berlin, where he succeeded in ingratiating himself into the Bismarck family. The Chancellor, in gratitude for the benefits derived from his services, obtained for him the title of a royal professor, and the Minister of Instruction has since bestowed upon him the Chair of Dermatology, which, rendered vacant by the death of Bärensprung some twenty years ago, has never since been filled, but only provisionally provided for. What are the qualifications for it of its new occupant is not stated; but it is somewhat singular that all these proceedings, which have of course occupied a good deal of time in their transaction, have called forth no statements from the Berlin medical press, although some of the political journals have freely alluded to them, and it is said that they are about to be brought before the parliament.

Exploring for Bullets.—Dr. S. J. Allen, in a paper read at the Vermont Medical Society, stated that during four years active service in the American civil war, he was very seldom able to localise the position of a bullet by means of a probe; which indeed he considers only of service for determining the direction the ball has taken from its point of entrance, and whether it has entered a cavity. Used beyond this it will do harm. But successful exploration may almost always be made by means of the smallest sized exploring needles, which may be repeatedly passed in, in different directions, without any danger and with little or no pain.

Rattlesnake Bite.—A fatal case is fully reported in the *New York Medical Journal*, July 19th. J. R., a professed "snake-charmer," was bitten on July 13th, at 4.30 p.m., by a Mexican "diamond snake" (*Crotalus adamanteus*), said to be nearly ten feet long. The bite was inflicted on the dorsal aspect of the right hand, between the first and second metacarpal bones. The man at once drank a pint of whisky, and a surgeon made three incisions, laying the wound open. Half an hour later the man fainted; then he vomited the whisky, and at once drank a quart more. Two hours afterwards the ambulance surgeon found him wearing an anxious expression, and covered with a cold, clammy sweat, and extremely restless. His mind was clear, his pulse was rapid, feeble, and barely perceptible; respirations hurried and laboured. The hand was swollen to the wrist, of a purplish colour, cold to the touch, exhaled a peculiar odour, and was bleeding freely from the incisions. The patient complained of agonising pain, extending up the arm, of a feeling of great constriction across the chest, and of a terrible pain near the umbilicus. Being put to bed in the hospital half an hour later, he began to have

involuntary evacuations of the bowels—at first solid, then solid and liquid fæces, and finally pure, arterial-coloured blood. This purging continued for two hours before abating, and was accompanied with constant vomiting, first of the contents of the stomach, and then of blood, also bright red in colour. The swelling extended up the arm to the elbow, and became darker in colour; the axillary glands were swollen and very painful; the voice husky and weak; the tongue dark-red and dry; the pupils were dilated and sluggish. The restlessness and other symptoms increased; there was constant thirst, and agonising pain in the arm, extending up over the chest and stomach, as well as over the back, in the region of the kidneys. Ten minims of Liq. Ammoniæ, and about ʒ ij. of whisky were given *sub cute*, the vomiting and purging precluding the administration of anything by the mouth or rectum. By noon on the 14th, the prostration was more marked; the swelling had extended to the trunk, and was dark-bluish in colour, owing to effusion of blood; this discoloration was also present on the right side of the chest. There was no delirium, and the mind remained clear up to the time of death, which took place at 8 p.m., the heart ceasing to beat several seconds before the respiration stopped. During the day, about a pint of milk and frequent draughts of hot tea had been taken. There is no note of the temperature, or of the renal secretion. At the autopsy made forty hours after death, there was found great extravasation of blood into the tissues of the arm, extending about the shoulder, and over the right side of the body, down to the groin in front, as if from severe bruising. Both lungs were congested, especially in the upper lobe—and œdematous. The heart was pale and flabby, but contained no clots. About an ounce of blood was found in each pleural cavity, and half an ounce of serum in the pericardium. The stomach was greatly congested and partly filled with blood; the right kidney one-third the normal size, the left much larger than normal. The spleen was normal; the liver congested, but otherwise normal. The brain was heavy and healthy, with slight congestion and extravasation, and evidences of an old pachymeningitis. "Death seems to have been due to syncope, from septicæmic gases entering the right auricle by way of the vena cava."

Women-Doctors in Russia.—Quoting from a Russian correspondent's letter, the *Revue de Thérapeutique* (August, 15) states that the question of women-doctors in Russia is exciting general attention, popular opinion setting in strongly against its recent prohibition by the Government. A Royal Commission has been issued to reconsider the subject, and it is a remarkable circumstance that the male medical practitioners of Russian origin are unanimous in recommending that women should be taught, while those who are of German origin, and who are very numerous at St. Petersburg, are just as unanimous against such teaching. Controversy on the subject is at the highest pitch, and at the present time he would be considered a bad patriot who pronounced against Æsculapius in petticoats. Something surely should be done, for in some parts of Russia a 100 kilometres may be traversed without meeting with a single doctor; and, indeed, with the exception of the two capitals, the want of doctors is urgently felt over the whole empire. The duration of life is only 26 years, which is explained by the fearful mortality of young children, 60 per cent. (and in the North, 75 per cent.) dying under five years of age. The result is that in each year more than a million and a half of young children disappear; so that of 8,000,000 boys born between 1856 and 1860, only 3,700,000 reached the military age, *i.e.*, 21, and of these nearly a million of conscripts were found unfit for service. Statisticians calculate that throughout the empire there dies a human being every eleven seconds. It is true that a birth takes place every eight seconds, whence results the consoling conclusion for the future that there is an annual increase of 1,220,000 individuals, or more than 3,000 per diem. From this progression the optimists infer that by 1954 the Empire of the Czars will comprise nearly 200,000 inhabitants.

Bisulphide of Carbon as a Disinfectant.—Calling to mind the much greater efficacy of the combustion of bisulphide of carbon than that of ordinary sulphur in extinguishing chimneys on fire, M. Pierre Vigier suggests (*Gazette Hebdomadaire*, August 15) that it would probably prove a far more active disinfectant of rooms and hospital wards. It is cheap, costing only a franc per kilo, is very inflammable, burning to the last drop and emitting torrents of sulphurous and carbolic acids. Dr. Dujardin Beaumetz is now conducting experiments in disinfection at the Cochin Hospital, and M. Vigier suggests that he should try the efficacy of the bisulphide by burning two or three kilogrammes in a closed room in which infectious germs have been deposited. After being exposed to the fumes for 24 hours, they should be examined to ascertain whether their vitality has been destroyed.

Chlorodyne.—The death of Dr. James Collis Browne, the inventor of chlorodyne, at the age of 66, on August 30th, is announced. The deceased was well known for his experiments in the construction of racing vessels, as well as for the above invention.

Errata.—In our report of the Bradshawe Lecture, the following misprints should be corrected:—Page 248, col. 1, line 12, *for* "insufficient," *read* "sufficient." Page 280, col. 2, line 12 from bottom, *for* "invented," *read* "perverted." Page 281, col. 1, line 33 from bottom, *for* "motbid," *read* "morbid"; line 29 from bottom, *for* "materials," *read* "material."

APPOINTMENTS.

Fottrell, W. J., L.K.Q.C.P.I., L.R.C.S.I.—Resident Surgeon to the Jervis Street Hospital, Dublin, *vice* Chance.

McCaw, James Matthew, M.B. and C.M. Edin.—Assistant Medical Officer and Dispenser of Medicines at the Workhouse and Infirmary, Woolwich Union, *vice* Mr. W. E. Boulter, resigned.

Richards, W., M.B., C.M. Edin.—House Surgeon to the Queen's Hospital, Birmingham, *vice* Charles Sanders, M.B. Lond., resigned.

Spicer, R. H. S., M.D.—Medical Officer and Public Vaccinator to the North Molton District, South Molton Union, Devon, *vice* James Flexman, resigned.

Williams, John, M.D. St. Andrews, M.R.C.S. Eng. and L.S.A. Lond.—Medical Officer to the Swinton and Clifton District, Barton-upon-Irwell Union, *vice* Mr. W. B. Shearman, resigned.

VACANCIES.

Devonshire Hospital, Buxton, Derbyshire. — House Surgeon. (*For particulars see Advertisement.*)

Faversham Union.—Medical Officer to the First District, in succession to Dr. W. E. B. Atthill, resigned. Area, 7,123 acres. Population, 8,332. Salary, £92 per annum.

Gloucester County Asylum.—Assistant Medical Officer. Salary, 100 guineas per annum, with board, lodging, and washing. Candidates must be duly qualified, registered, unmarried, and not over 30 years of age. Applications and testimonials to be sent to the Medical Superintendent, on or before September 15th.

Grosvenor Hospital for Women and Children, Westminster, S.W.—Physician. Candidates must be Fellows or Members of the Royal College of Physicians, London, and Graduates in Medicine of a British University. Applications, with Testimonials, to be sent to the Secretary, on or before September 6th.

Manchester Royal Infirmary.—Resident Surgical Officer. (*For particulars see Advertisement.*)

Rhuyader Union. Medical Officer. (*For particulars see Advertisement.*)

Somerset and Bath Asylum. — Senior Assistant Medical Officer. Salary, £150 per annum, with board, lodging, and washing. Candidates must be single, not more than 30 years of age, and have had previous experience in a public asylum. Applications, stating age and experience, with not more than four recent testimonials, to be sent to Dr. Wade, Superintendent, County Asylum, Wells, Somerset, on or before September 10th.

South Molton Union.—Medical Officer to the Eleventh District, in succession to Mr. Robert Henry Scanes Spicer, resigned. Area, 8,376 acres. Population, 1,143. Salary, £28 per annum.

St. Mary's Hospital, Manchester.—House Surgeon and Resident Obstetric Assistant. (*For particulars see Advertisement.*)

St. Thomas's Hospital.—Curator of Museum. (*For particulars see Advertisement.*)

The Hospital for Women, Soho Square, London, W.—House Physician. (*For particulars see Advertisement.*)

University College, London.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

University of Aberdeen.—Examiners in Medicine. (*For particulars see Advertisement.*)

DEATHS.

BROWNE, J. C., M.D., late H.M. 98th Regiment, at Ramsgate, on August 30th, aged 64.
GARRARD, G. S., M.R.C.S., at Kington, Herefordshire, on August 27th, in his 59th year.
LYDALL, W. H., L.R.C.P., late of 19, Mecklenburgh Square, London, at Exmouth, Devon, on August 28th, aged 46.
MICHAEL, Surgeon-Major, D., F.R.C.S., at 1, The Circus, Bath, on August 29th, in his 52nd year.
PEARL, G., M.D., late of Windsor, at 24, Park Crescent, Brighton, on August 21st.

NOTES, QUERIES, AND REPLIES.

AN ULTRA-CENTENARIAN.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Under this heading a paragraph appears in this day's journal, asserting that a French woman had died aged 121 years, and that "her duly signed baptismal certificate had been produced." Signed *by* whom, and produced *to* whom? is the question that naturally arises. Since the appearance of Mr. Thoms's critical work on "The Longevity of Man," one has learned to disregard all stories of centenarianism that are not vouched for by *public* documentary evidence. This case of Marie Durand probably belongs to the "enormous gooseberry" season of some provincial newspaper.

August 30th, 1884. I am, Sir, yours, &c., J. D.

COMMUNICATIONS RECEIVED—

Mr. H. A. KNUTZEN, London; Mr. JAMES DIXON, Dorking; Mr. JOHN F. POPHAM, London; Dr. SIDNEY COUPLAND, London; Dr. WILLOUGHBY, London; Mr. J. T. W. BACOT, Seaton, Devon; Dr. W. R. GOWERS, London; Mr. T. W. HIME, Bradford; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. PHILIPSON, Newcastle-on-Tyne; Dr. A. H. HOWE, London; Messrs. BROWN, GOULD, & Co., London; Dr. F. CHURCHILL, London; OUR EDINBURGH CORRESPONDENT; Dr. J. MITCHELL BRUCE, London; THE HON. SECRETARY OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY, London; Mr. CHARLES E. CASSAL, London; THE SECRETARY OF THE INTERNATIONAL HEALTH EHHIBITION, London; Mr. STEVENS, London; Dr. Isambard Owen.

BOOKS RECEIVED—

Handbuch für Madeira, von Prof. Dr. Paul Langerhaus—Twentieth Report of the City Hospital, Boston—Thirty-eighth Report of the Commissioners in Lunacy to the Lord Chancellor—Annual Report of James Murray's Royal Asylum, Perth—The Philosophy of Mr. Herbert Spencer, examined by the Rev. James Iverach, M.A.—Spaltpilze im menschlichen Blute, von Dr. G. V. Hoffman—Dementia Paralytica, von Dr. Franz Tuczek—Cerebral Localization in relation to Insanity, by J. M. Carnochan, M.D.—Report on the Sanitary Condition of the Wandsworth District during the year 1883—Report on the London Water Supply during the year 1883—Report on the Borough of Portsmouth for the year 1883.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Girl's Own Paper—The Sunday at Home—The Leisure Hour—Friendly Greetings—National Anti-Compulsory-Vaccination Reporter—The Archives of Pediatrics—The Polyclinic—The Edinburgh Medical Journal—The Veterinarian—The Sanitary Journal, Ottawa—The Bath Argus—Archives Géuerales de Médicine—The Monthly Homœopathic Review—The Boy's Own Paper—The Glasgow Medical Journal—The Birmingham Medical Review—The Brighton Times, August 29—The Analyst—Centralblatt Therapie—The Philadelphia Medical Times.

APPOINTMENTS FOR THE WEEK.

Friday, September 5 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Common Food Adulterations."

Saturday, September 6.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.: Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, September 8.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, September 9.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London' 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY)' 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Air and Air Analysis."

Wednesday, September 10.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Common Poisons."

Thursday, September 11.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, September 12.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Methods of Food Analysis."

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES

AND GAZETTE.

No. 1785. LONDON, SATURDAY, SEPTEMBER 13, 1884.

Contents.

STUDENTS' NUMBER.

IT is a custom of long-standing with Medical Journals in this country to devote one of their September numbers to the interests of those who are intending to enter the medical profession. Considering how large this class is, and how important the functions that its members will one day have to undertake in the commonwealth, it will be admitted that no means should be neglected of giving them the fullest and most accurate information as to the arrangements for their future education and examination. At the same time, a Medical Journal has its obligations to its ordinary readers, for whom it is to be feared a Students' Number in its typical form is little else than waste paper. In the present issue we have attempted, as far as is attainable, to combine the two purposes, including all such information and advice as may be necessary to guide the intending student and his parents, while casting it in such a form that it may be expected to be of some interest to the ordinary reader. The choice of a Medical School may be considered the most important problem to be decided by the aspirants to a medical education, and it is hoped that the original articles on the London and Provincial Schools in England, which have been specially written for this number by members of their respective staffs, will be of essential service in this respect, while we doubt not that they will be read with interest throughout the profession, by the friends, fellow-students, and past pupils of their authors. The information as to the requirements of the Examining Bodies, which do not as a rule concern the student until he has joined his chosen school, has been thrown into the form of synoptical tables, with a view both to economising space and to facilitating comparative reference. The Advice to Students, which forms a usual and, considering how freely they are advised in other ways, perhaps a superfluous function of a Students' Number, has been thrown into the form of letters, for the idea of which we must acknowledge our indebtedness to Mr. Hamerton's "Intellectual Life." If this innovation needs any apology, it may be contended, with some amount of justice, that the ordinary leading article hardly offers such scope for that friendly and unpedantic advice adapted to varying conditions and contingencies, as is afforded by the plan we have selected. In conclusion, we must express our deep sense of obligation to the lecturers of the English schools who have so readily complied with our desire to have the advantages of their schools set forth by those who best know them, while at the same time we return our thanks to the authorities of the various universities, corporations, schools, and hospitals who have furnished us with the information necessary to make this number a complete one.

MEDICAL EDUCATION AND EXAMINATIONS IN ENGLAND.

INTRODUCTORY ARTICLE.

There are eight different bodies in England which can grant Licences to Practise Medicine, viz., the Universities of Oxford, Cambridge, London, Durham, and Manchester (Victoria University), the Royal College of Physicians and Surgeons, and the Society of Apothecaries.

(1) The University of Oxford grants degrees in Medicine to those of its students who have resided the requisite number of terms, who have taken the B.A. degree, and have fulfilled certain conditions and passed certain examinations under the following conditions:—

There are two degrees in Medicine—B.M, and D.M. Every candidate must take the degree of B.A. Hence he must matriculate at some College or Hall, or as a non-Collegiate Student, keep twelve terms or three years of residence, and pass the following examinations:—Responsions, or the examination in lieu of Responsions, held annually shortly before Michaelmas Term; Moderations, Rudiments of Faith or the Substituted matter, and the Final Pass School or one of the Final Honour Schools. Of the latter the School of Natural Science offers many advantages. There are in it two examinations, the Preliminary, and the Final Honour Examinations. The former includes (1) Chemistry, (2) Mechanics with Physics; and the certificates exempt the holder from further examination in these subjects at the First B.A. Examination, and in case he is unable to proceed to Honours reckon as two out of the three certificates necessary for the Pass Degree. The Final Honour Examination includes Chemistry, Physics, Botany, Animal Morphology, Animal Physiology, and Geology. Honours are granted in every one of these subjects separately. Whoever obtains a First or Second Class in the five first named, may present himself as soon as he chooses for First B.M. Examination. A First or Second Class in Botany frees the student from further examination in that subject.

The degree of B.M. may be taken by a B.A. in the twenty-seventh term from matriculation. There are two examinations held annually in Trinity Term (usually in June) after due notice given by the Regius Professor of Medicine, to whom names are (by statute) to be sent at least fourteen days before the week of examination. The examinations are conducted partly by papers, partly by practical work, and partly *vivâ voce*. Conditions and subjects are as follows:—

(I) *First Examination.*—Candidates other than those privileged as above stated may not enter earlier than two years, or eight terms from the date of the first certificate in a Final School, Pass, or Honour. The subjects are—(1) Human Anatomy and Physiology, (2) Comparative Anatomy and Physiology to a certain extent, (3) Botany (exemption see above), (4) Chemistry, and (5) Mechanics with Physics (exemptions see above). Subjects (4) and (5) may be taken together on an occasion other than that at which the remainder are offered.

(II) *Second Examination.*—A candidate may present himself four years or sixteen terms after the date of the first certificate in a Final School, Pass, or Honour, provided two years or eight terms have elapsed from the date of his certificate in the First Medical Examination. Certificates of attendance at some hospital of good repute must be sent to the Regius Professor of Medicine, and be approved by the major part of the examiners. The subjects are—(1) Theory and Practice of Medicine, including Diseases of Women and Children, (2) Materia Medica, (3) Therapeutics, (4) Pathology, (5) Principles of Surgery, and (6) of Obstetrics, (7) Forensic Medicine, and (8) General Hygiene. A paper is also set containing passages from two out of four ancient medical authors (Hippocrates, Aretæus, Galen, Celsus) and from more modern writers in Latin, French, and German; *e.g.*, Sydenham, Pasteur, Koch, approved by the Regius Professor. Candidates are usually required to select two passages, one from an ancient, and one from a modern author.

A B.M. may proceed to the degree of D.M., provided he has passed three years from the degree of B.M. in the study or practice of Medicine. He has to write a thesis on a subject previously approved by the Regius Professor, to read it publicly before him, and then to deliver to him a copy.

Incorporation, under certain conditions, is possible to a Cambridge or Dublin graduate.

(2) The University of Cambridge has an efficient and rapidly increasing Medical School attached to it, and grants degrees in Medicine and Surgery under the following conditions:—

The Degree of Bachelor of Medicine (*M.B.*).—A Student proceeding to this degree must (1) reside in the University the required portion of each of nine terms; (2) pass (or obtain exemption from) the previous examination; (3) pursue medical study for five years, unless he has obtained honours in one of the triposes, in which case four years only are required.

There are three examinations for the M.B. Degree. The subjects of the *First* Examination are—(1) Chemistry and other branches of Physics. (2) Elementary Biology. These two parts may be taken together or separately.

Before presenting himself for the First Examination, the Student must produce certificates of attendance on a course of Lectures in Chemistry and a course of Practical Instruction in Chemical Manipulations. The subjects of the *Second* Examination are—(1) Human Anatomy and Physiology. (2) Pharmacy and Pharmaceutical Chemistry. These two parts may be taken together or separately.

Before presenting himself for the Second Examination, the Student must have attended Hospital Practice during six months, must have practised Dissection during six months, and produce certificates of attendance on Lectures in (1) Human Anatomy. (2) Physiology. (3) Pharmacy and Pharmaceutical Chemistry. The *Third* Examination is divided into two parts. The subjects of the first part are—(1) Principles of Surgery. (2) Midwifery and Diseases peculiar to women. Before presenting himself for this part the Student must have attended the Surgical Practice of a recognised hospital during one year, have attended ten cases of midwifery, produce certificates of proficiency in vaccination, and of attendance on Lectures in (1) Pathological Anatomy; (2) Principles of Surgery; and (3) Midwifery. The subjects of the second part are—(1) Pathology; (2) Principles and Practice of Physic; (3) Elements of Hygiene; (4) Medical Jurisprudence. Before presenting himself for the second part, the Student must have attended Hospital Practice during three years, have acted as clinical clerk for six months, and produce certificates of attendance on Lectures on (1) Principles and Practice of Physic; (2) Physiological actions and Therapeutic uses of Remedies; and (3) Medical Jurisprudence. After the Third Examination, an Act has to be kept, which consists in reading an original thesis, followed by a *vivâ voce* examination on the subject of the thesis, as well as questions of a more general nature connected with medicine.

The Degree of Bachelor of Surgery (*B.C.*).—A Student is admissible to the Examination for this degree at any time after he has passed the first part of the Third Examination for the M.B. The subjects of the Examination are—(1) Surgical Operations and the application of Surgical Apparatus; (2) The examination of Surgical patients. Before admission to the Examination, certificates are required (1) Of attendance on Surgical Practice for two years, and of having acted as Dresser or House-Surgeon for six months; (2) A course of instruction in Practical Surgery. Before admission to the Degree of B.C., the candidate must also have passed the second part of the Third Examination for the Degree of M.B.

The Degree of Doctor of Medicine (*M.D.*) may be taken three years after the M.B. An Act has to be kept, by reading a Thesis on some subject chosen by the candidate, but approved by the Regius Professor of Medicine. In addition an ex.empore essay has to be written on some subject relating

to Pathology, Physiology, the Practice of Medicine, or State Medicine. A Master of Arts of four years' standing can proceed direct to M.D., provided he produces the same certificates and passes the same examinations as for M.B.

The Degree of Master of Surgery (*M.C.*).—A candidate for this degree must have passed all the Examinations for B.C. two years previously. The subjects of the Examination are:—(1) Pathology; (2) Principles and Practice of Surgery; (3) Surgical Anatomy and Surgical Operations; (4) Clinical Surgery and a short extempore essay on a Surgical case or topic relating to Surgery.

(3) The University of London, which has its head-quarters in Burlington Gardens, W., grants degrees in Medicine and Surgery (M.B., B.S., M.D. and M.S.) after a very complete and arduous series of examinations. These degrees have achieved a high reputation throughout the country, and the student who has received a good preliminary education, and is confident of being able to devote the requisite time to the curriculum, and has not had the advantage of residing at one of the older universities, cannot consult his future prospects better than by competing for the London degrees. He must first pass the Matriculation Examination which is held in London and in certain provincial centres twice a year, in January and June, no other preliminary examination being accepted by the University in lieu of it. The candidate must have completed his sixteenth year, and the fee for the examination is 2*l*. The subjects of the examination are: (1) Latin. (2) Any two of the following languages:—Greek, French, German and either Sanskrit or Arabic. (3) The English Language, English History and Modern Geography. (4) Mathematics. (5) Natural Philosophy. (6) Chemistry. It is scarcely advisable for the student who has already entered on his medical studies to think of passing this and the succeeding Preliminary Scientific Examination, as his medical studies must necessarily be suspended for that purpose, no medical studies being counted by the University until the student has matriculated. Both examinations ought to be passed before entering as a medical student, though many of the London Medical Schools now give facilities for the study of the subjects included in the Preliminary Science Examination. These subjects are: (1) Inorganic Chemistry; (2) Experimental Physics; (3) General Biology. The candidate must have completed his seventeenth year, and the fee is 5*l*. The examination is also held in a few of the northern cities, except in respect to the practical examinations in Biology, which must be carried on at the University. The passing of this examination involves a very complete and practical knowledge of the preliminary sciences which cannot be acquired without special instruction. Further particulars, both of this and of the matriculation examinations, may be obtained from the Registrar of the University, and information as to the arrangements made at various institutions for preparing students for them, will be found in our advertisement columns.

The requirements of the University in respect to the later examinations—the intermediate examination in Medicine, and the M.B., B.S., M.D. and M.S. Examinations will be found concisely put in the synoptical tables at page 377 of this Journal, and more fully in the calendar of the University, as well as in the extracts from it specially printed for the use of students, and to be obtained from the Registrar.

(4) The University of Durham grants degrees and licences in Medicine and Surgery, particulars of which may be gathered from our synoptical tables. In respect to residence required of its students, it stands midway between the older universities and the University of London, one year's study at the University College of Medicine, Newcastle-on-Tyne, being required of candidates for all its degrees, except the M.D. degree for practitioners of 15 years' standing.

(5) The newly constituted Victoria University, which has its head-quarters at Owens College, Manchester, grants the degrees of M.B., M.D., and Ch.M. Candidates must have completed four years of medical studies, two of which must be passed at one of the colleges in connection with the University. The examinations are very similar to those of the London University; but further particulars may be gathered from our synoptical tables.

(6) The Royal College of Physicians of London, in Pall Mall, may be regarded in two aspects, in its relation to the consulting physician, and in its relation to the general practitioner. All who aspire to physician's practice, whatever their degree, will find it necessary to take the membership of the College in the hope of subsequently being deemed worthy of election to its fellowship. It does not fall within our present scope to describe the conditions on which these valuable diplomas are conferred. Full particulars, however, with regard to the Licence—the general practitioner's diploma—will be found in our synopsis. It constitutes a qualification to practise all the three branches, Medicine, Surgery and Midwifery, and students cannot be too strongly counselled to lay out their studies with a view to securing a diploma, the value of which is so generally recognised. They must at the same time consider it obligatory on them also to obtain the membership of the Royal College of Surgeons, and it is to be hoped that before long arrangements will be made by which the two diplomas will be obtainable by means of a single conjoint examination. Both Colleges require evidence that the student has passed one of the many Arts examinations recognised by the General Medical Council. These include the various local and entrance examinations of the British Universities, the Arts Examinations of the Apothecaries' Halls of London and Dublin, and the Preliminary Examinations of the Scottish Licensing Corporations and of the Irish College of Surgeons, the Examinations of the College of Preceptors and of the Civil Service Commissioners, and those of various Indian, Colonial and Foreign Universities and Colleges. Some of these examinations must have been passed under certain conditions, particulars of which may be obtained by application at the offices of the General Medical Council, No. 315, Oxford Street. If the student has passed none of these recognised preliminary examinations, he should not delay to present himself for one of them, and he will probably find the most convenient to be that of the Apothecaries' Society, particulars of which are given in a succeeding paragraph.

(7) The Royal College of Surgeons of England, like the College of Physicians, grants two diplomas, a lower and a higher one, the Membership and the Fellowship. The latter, however, differs from the higher diploma of the physicians, in that it does not practically disqualify from general practice; indeed, it is possessed by many hundred practitioners throughout the country, and the student who cannot spare the time required for a university degree, but is ambitious enough to desire to raise himself above the generality of practitioners, should lay himself out for taking the Fellowship of the College of Surgeons. It is not necessary here to particularize the requirements of the College for this diploma, but it may be stated that the candidate must have passed a preliminary Arts examination which includes Greek as one of its subjects, and he must be prepared to spend a third winter at his anatomical studies, and to devote considerable attention to the study of Comparative Anatomy. The examinations, especially the first, are sufficiently severe.

The Membership of the College is the diploma taken by the vast majority of English, and by many Scottish and Irish students. The curriculum at the various hospitals is arranged to fulfil the requirements of the College for this diploma, an abstract of which will be found in our synoptical tables. The candidate it will be observed, must pass not only one of the Arts examinations recognised by the Medical Council, but also the elementary examination in Anatomy and Physiology held at his school. This is a new regulation, and as it cannot fail to induce the student to fully utilize his first year, will no doubt exercise a most beneficial effect on primary medical instruction. By the large majority of students the first examination for the membership is taken in the April or May following their second winter session. They are then able to devote themselves to their hospital work, with the view of passing the final examination at the end of their fourth year. If the candidate is not successful in satisfying the examiners, he is referred under certain conditions, with which, it is to be hoped, none of our readers will find it necessary to make practical acquaintance.

(8) The Apothecaries' Society of London, which occupies an interesting old building behind the Ludgate Hill Station of the Chatham and Dover Railway, confers a qualification to practise medicine, entitled the Licence of the Apothecaries' Society, granted after passing two examinations, a primary and a final. Each examination is divided into two parts, written and oral; the former is held every Wednesday, the latter every Thursday throughout the year. Both in the primary and final, the candidate is examined on the living subject, on healthy and morbid specimens respectively. The primary may be taken at the end of the second winter session, and the final at the end of four years from the commencement of medical studies, of which it may be noted only three winter and two summer sessions need be passed at a recognised hospital. The Licence is a cheap diploma, costing only 6*l*. The candidate must have passed an Arts examination, a special one being held by the Society itself three times a year, which is recognised by the Medical Council and other licensing bodies. The following are the particulars :—

Examination in Arts.—This examination will be held at the Hall of the Society on Thursday, Friday, and Saturday, January 8, 9, 10; April 30, May 1, 2; September 10, 11, 12, 1885.

Syllabus of Subjects for Examination in Arts. (a)

1. *The English Language*—Including grammar and composition; writing sentences in correct English upon a given theme; writing correctly from dictation; explaining the construction of sentences; pointing out the grammatical errors in sentences ungrammatically expressed; giving the derivation and definition of words in common use.

(a) The examiners recommend the study of one of the following:—English: Angus's, Adams's, or Mason's Grammar, and Earle's Philology. English History: Bright's History of England, and Green's "Short History of the English People." Mechanics: Wormell's or Newth's Natural Philosophy, or Girdlestone's Mechanics. Chemistry: Roscoe's Elementary Chemistry.

2. *English History*—The general facts of English History, and special questions on the reigns of Charles II. and James II.

3. *Modern Geography*—Including the elements of physical geography.

4. *The Latin Language*—Including translations from the original, and grammar. January Examination: Æneid 7 and 8. April Examination: Quintus Curtius. Alexander in India (Pitt Press). September Examination: Cicero, pro Milone.

5. *Mathematics*—Arithmetic, including vulgar and decimal fractions. Algebra, including simple equations. The First Two Books of Euclid, or the subjects thereof. (b)

6. *Elementary Mechanics*—Of solids and fluids, comprising the elements of Statics, Dynamics, and Hydrostatics.

7. (*a*) *Greek*—Homer, Odyssey 5 and 6. Grammatical questions. (*b*) *French*—Lazare Hoche, by E. Bonnechose (Pitt Press). Translation from English into French. Grammatical questions. (*c*) *German*—Das Jahr, 1813, by F. Kohlrausch (Pitt Press Edition). English into German. Grammatical questions. (*d*) *Elementary Chemistry*—Inorganic.

METROPOLITAN SCHOOLS OF MEDICINE.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

St. Bartholomew's Hospital was founded in 1123, and the first medical treatise due to its opportunities of observation is the "Breviarium Bartholomæi" written about 1380. From scattered remarks of the author, John Mirfeld, it appears that some medical instruction was even then given by the Hospital Staff. In the sixteenth century a few members of the Universities studied under the Physicians, while the Surgeons had apprentices, but it was not till the reign of Charles II. that any regulations were made with regard to the Hospital as a School of Medicine. Two years after the Great Plague a library was formed for the use of the students. One of these was Edward Browne, of Trinity College, Cambridge, son of Sir Thomas Browne, and a manuscript note-book of his studies is still extant. Dr. Caius, though never on the staff, lived within the Hospital walls and took interest in its work, and six members of his college have since been elected Physicians to the hospital, one being the immortal Harvey, who held the office for 34 years.

Since 1660 the history of the Medical School has been one of continued improvement. In 1724 there was added a museum, and in 1734 a regular dissecting room. The Physicians had before this lectured on Anatomy outside the hospital in Monkwell Street, where Dr. Terne's lectures, delivered early in Charles II.'s reign, were remarkable for their fulness and lucidity, but from the time of Edward Nourse, who was elected Surgeon in 1745, the teaching of Anatomy passed into the hands of the Surgeons.

In 1765 Percival Pott, whose name every medical student associates with two well-known surgical affections, gave the first full course of lectures on Surgery. John Hunter was one of his pupils. Dr. William Pitcairn and Dr. David Pitcairn gave lectures on Medicine. In 1787 lectures on Physiology were first given and these were soon followed by lectures on Chemistry. Abernethy soon appeared upon the scene and his genius for teaching trebled the number of students, so that during his time the anatomical theatre was twice re-built.

The Governors of the Hospital have always shown a wise liberality towards the school, and they had already seven times added to its accommodation and conveniences during the nineteenth century, till, in 1876, the regular increase for several years in the number of students made it desirable to re-model all the school buildings. The question was discussed as to whether this re-building should provide for a moderate further increase, or whether provision should be made for as many students as it was ever likely the practice of the hospital could instruct. The more extensive scheme was wisely adopted with the result that, while the School is the largest in London, it has abundant accommodation for all its present members and for a very large future increase. Full accommodation was made for an annual entry of 200, a number which it is not probable will be reached for many years to come.

The out-patient practice of the Hospital is the largest in the United Kingdom, and the enormous advantage of this to the students is shown by the fact that they have opportunities of receiving instruction on examples selected from more than 160,000 cases of medical and surgical affections in the course of the year. The total number of beds under the control of the staff is 750,

and the 75 beds just added in the new Convalescent Hospital will materially increase the clinical advantages of the students by making it possible to admit a larger number of urgent cases into the beds vacated by convalescents.

It would be impossible to conduct so large a practice without the aid of a great body of competent students. After passing their Anatomical and Physiological Examination and receiving a systematic course of instruction in the rudiments of practical Medicine, Surgery and Midwifery, students are eligible for hospital appointments: clinical clerkships, dresserships, out-patient clerkships and dresserships, ophthalmic gynæcological, and *post-mortem* clerkships, about 140 such appointments being made every three months. Four House-Physicians, ten House-Surgeons, an Assistant Chloroformist, two Ophthalmic House-Surgeons, and two Midwifery Assistants are chosen annually from the most diligent students when duly qualified. The holders of these appointments receive rooms and an honorarium. They also receive all the fees for *post-mortems* and inquests upon persons brought dead to the Hospital. Every two years three Casualty Physicians are appointed, and though the appointment is open, former members of the Junior Staff have usually been appointed. Each Casualty Physician receives 100*l.* a-year. The House-Physicians and House-Surgeons are under the direct control of the Physicians and Surgeons, and during the absence of their Seniors have the advantage of being the sole medical authorities of the Hospital.

Besides these clinical opportunities, an industrious student at St. Bartholomew's has a succession of Scholarships and other prizes to stimulate his application to his work. At entrance there are two science Scholarships of 130*l.* each, and one Scholarship in Arts of 50*l.* In the first year two Scholarships of 50*l.* one of 30*l.*, and one of 20*l.*, with a prize in Anatomy, are offered for competition. In the second year, three prizes and a Scholarship of 50*l.* In the third year, two Scholarships of 30*l.*, a Gold Medal, and three prizes, and in the fourth year a Scholarship and Gold Medal of the value of forty guineas. A student of distinction, when qualified, may obtain one of the junior teaching posts. Three Assistant Demonstrators of Anatomy, two of Physiology, and an Assistant Medical Tutor are appointed every two years. All these are paid offices, and, with the private tuition to which they lead, enable a man of ability to support himself in London while he is considering his future course of practice, or while preparing himself to compete for higher posts at St. Bartholomew's or elsewhere.

The College of St. Bartholomew's Hospital, in which students can reside with many of the advantages of residence at a University, occupies the side of the Hospital looking into Duke Street, Smithfield. Each student has two rooms, and there is a common hall. The College is presided over by the Warden, who has usually also discharged the duties in the School at large, which are elsewhere associated with the title of Dean. The earliest use of the word "Warden" at St. Bartholomew's is in 1182, when one Alan is so described, and the title was happily revived in 1843, when Sir James Paget was elected head of the College. The general discipline of the School is in charge of a special Committee which sends every month for all students who have been irregular in their attendance. The Committee is always ready to receive every explanation and to make full allowance for slowness of apprehension or occasional thoughtlessness, but persistent idleness is not permitted and *aut disce aut discede* is the alternative offered to every student who persists in neglecting his studies.

Lastly, as to fees. The principle rigidly adhered to at St. Bartholomew's is that the fee for a perpetual ticket shall cover everything required for qualification. The library and the chemical laboratory and chemicals are free to every student. The only extra-payment of any description is the small fee for a ward-dressership. Forty such dresserships are given away as prizes by open competition every year, so that an exemption from this payment is within the reach of every one who chooses to work for it. The prize dresserships thus afford a widely diffused and very useful stimulus to the exertions of the students of the first year.

These are the main features of St. Bartholomew's. The graces of its antiquity, its vast modern opportunities for observation in Medicine, Surgery, and Pathology make it a place to which both its teachers and its students are devotedly attached, and all are actuated by a desire to be worthy of its past reputation and to extend its fame in the future.

CHARING CROSS HOSPITAL AND MEDICAL SCHOOL.

(By a Member of the Staff.)

The Charing Cross Hospital and School of Medicine occupy a prominent position in the very heart of London, in close proximity to the spot from which they take their name, which is associated with so many memorable events in the history of our country. The Hospital proper compactly occupies a mass of buildings which lie between King William Street, Chandos Street, and Agar Street; and the apex of the triangle is aptly completed by the Westminster Ophthalmic Hospital, which is also open to Charing Cross students. Across Chandos Street, and connected with the Hospital by means of a subway, stands the Medical School, an entirely new building within the last few years. To those students who are anxious to avail themselves fully of the many and unique advantages presented by the Metropolis over other cities, as a place of medical education, the central situation of Charing Cross Hospital will at once commend itself. Not only is it easily reached from all parts of London and the suburbs—no small matter when lectures commence at nine in the morning, but the neighbourhood in which it stands might be taken as the very type of all that is Metropolitan, for every character of patient, every class of disease and injury, come daily under observation. Some of the greatest arteries of traffic pass its very doors. The river is within a hundred yards of it. A walk of two minutes brings the student to Trafalgar Square, Pall Mall, St. James's Park, and all the imposing grandeur of Royal palaces, Parliament, and the Clubs. Behind the Hospital stretches a very different region—the great districts of St. Martin's and St. Giles's, with Leicester Square, Drury Lane, and Seven Dials. From each of these fields of life and of disease comes a constant supply of material for medical relief and medical study.

The character of the instruction given at this School reflects very accurately these advantages of its situation. It has come to be essentially a school for training the general practitioner, a place where the student who enters the profession with a love for Medicine as the healing art, can enjoy to the full the pleasures and benefits of practical training and experience. Whilst sending up to the Universities a number of distinguished pupils who worthily maintain the reputation of their hospital amongst other schools, Charing Cross especially rejoices in preparing men for an honourable and useful career in family practice and in the public services. The hospital which can claim a Huxley amongst its former pupils, is not less proud to point

to a Livingstone, a Fayrer, a Guyer Hunter, and to the many younger men who have taken and who now hold the highest places in the Medical Department of the Army and Navy, or the highest professional positions in London and the provinces.

The Committee and Staff of Charing Cross Hospital thoroughly appreciate the character and the traditions of their School, and strive earnestly to maintain them. They avail themselves of the obvious advantage that attends the moderate size of the institution, to make themselves intimately acquainted with the character and abilities of every pupil, and to give him both the amount and the kind of individual attention which he specially requires. In a school of 120 to 150 students this is quite practicable. This care is especially practised at the commencement of the student's career. The first importance is attached to the soundness of his grounding in the great natural sciences of Anatomy, Chemistry, and Physiology, which are taught practically and tutorially as well as by systematic lectures. The chemical laboratory is thoroughly complete. The dissecting room is probably unique of its kind in London, situated in the roof of the building, large, light, elegant, and sweet. Dissecting goes on here in summer as well as in winter. The physiological laboratory is intended to be a second dissecting room, open all day, and fully provided with material and the means for studying it. During his first year the student is allowed to whet his appetite for Medicine and Surgery by occasionally visiting the hospital and holding minor appointments: his second winter is entirely devoted to the completion of his scientific knowledge, and to preparation for his first examinations, which will enable him to proceed untrammelled to professional work proper.

Having passed his primary examination or examinations, the student has his attention directed to Surgery, Medicine and Midwifery, as well as the related subjects of Pathology, Therapeutics, and Forensic Medicine. Here an important change in the right direction has been made within the last three years, by the establishment of regular Chairs of Practical Medicine and Practical Surgery. By this means a vast amount of instruction which was given casually by the different officers of the hospital, and of which the students no doubt did not always take full advantage, has been systematized, and indeed rendered compulsory. Physical Examination, Clinical Chemistry and Microscopy, Minor Surgery and Bandaging, and Practical Pathology are now studied in regular courses, in which the demonstrative and tutorial system is closely followed. A proper groundwork being thus laid down, the student undertakes his work in the wards and out-patient rooms with intelligence and profit. Another advantage of the moderate size of the school is now seen. Every student obtains (and that in proper order) a clinical post, without more than that amount of difficulty which enhances its value in his eyes, the appointments to clerkships and dresserships being made in order of merit, as tested by the previous performances of the men in the school and at the public examinations. Every pupil is required to hold an out- and in- door clerkship, and an out- and in- patient dresserships, each extending over a period of three months; besides which he is encouraged to fill similar posts in one or all of the special departments, and to serve as pathological assistant. An interesting feature in this connection is the arrangement by which the students virtually keep the professional records of the hospital. The "cases" of the out- as well as of the in- patients are carefully preserved, and they are entirely taken by the clerks under the close direction of their superiors. Instruction and work thus go hand in hand. The greatest importance is attached at Charing Cross to the training in the out-patient department. The officers believe that this is an unrivalled field for the students to observe just that kind of general practice which every man has to meet when he enters the profession for himself.

At the same time all the important specialties are represented. The students attend the gynæcological practice in rotation. The lying-in institution is efficiently organised. There are departments for diseases of the skin, of children, of the ear, and of the teeth, where instruction is not only freely but systematically given. The students have the invaluable privilege of attending the practice of the Westminster Ophthalmic Hospital. The Dental Hospital of London is within three minutes' walk, in Leicester Square, and the lecture hours have been especially arranged to enable dental pupils to take full advantage of the instruction at both institutions.

The students of Charing Cross Hospital have abundant opportunities of occupying with advantage the time not actually devoted to classes or hospital work. The large library and reading room is always open. They may study in the museum, which is rapidly increasing in the number, variety and value of its contents. And when work is over they are encouraged in every way to enjoy their relaxation after a wholesome fashion. The Students' Club is a social bond which confers upon the members the right of belonging to all the sub-institutions of the hospital—to the Foot-ball and Cricket Clubs, to the Medical or Debating Society, and to the society for organising entertainments to the patients in winter. Charing Cross Hospital has the honour of having been the first to establish a Volunteer Army Hospital Company, and a number of the students are now fully equipped with uniform, accoutrements, and stretchers. By these and similar means the life of the student at this School is made as bright and happy as possible.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

"London is the capital of England, and the capital of London is Leicester Square," so a popular French guide-book for tourists used to inform its readers. To the inhabitants of modern residential London, the metropolis may be said to centre in Hyde Park Corner; and the most conspicuous object at Hyde Park Corner, since the happy removal of the Iron Duke and his charger, is the façade of St. George's Hospital. It is singular to reflect, so magical has been the growth of the great city, that the noble charity which now occupies the very focus of the western residential districts was founded, not more than 150 years ago, to give poor patients from London the advantage of treatment in the clear country air.

As it stands at present, enlarged, rebuilt, and added to, with the populous industrial quarters of Westminster, Pimlico, and Chelsea but a short distance away, the hospital is fully employed in meeting the wants of its own neighbourhood, and furnishes ample material for instruction in all varieties of disease and all branches of medicine and surgery.

Private munificence has enabled it to establish a branch in the country beyond Wimbledon, to which convalescent patients are drafted as soon as their state permits, leaving the wards of the central hospital free for such cases as require a serious exercise of medical or surgical skill. Of the 351 beds of the establishment at Hyde Park Corner, all of which are available for the purposes of the teaching staff, 205 are given to surgical cases, 146 to medical ones; and special wards are set apart for diseases of the eye and diseases of women. In addition, the whole of the out-patient department

has been organised for the purpose of clinical instruction, to an extent hardly possible except under the peculiar circumstances of a West End hospital, so that students have full opportunities of becoming familiar with the minor as well as the major ailments they will be called on to treat. Special out-patient departments have been arranged for diseases of the eye, of the skin, of the throat, for diseases peculiar to women, for orthopædic and for dental surgery, and in all of these instruction is systematically carried on.

The school buildings, containing the lecture theatres, dissecting room, laboratories, library and museum, are compactly and ingeniously arranged, and immediately adjoin the hospital, so that the student loses no time in going to and fro. Busts of John Hunter, of Brodie, and of other past celebrities of the School, adorn the main corridor. The well-known pathological collection, which was commenced by Sir Benjamin Brodie and the late Mr. Cæsar Hawkins, is housed in a lofty hall in the school precincts. It has recently been entirely rearranged and recatalogued on a new system with the view of affording students every facility in consulting it. Among the historic relics shown in connection with the museum are the skin of the cow from which the first vaccine lymph was taken by Edward Jenner, the anatomical table and chair of John Hunter, and the famous coin that nearly proved fatal to Brunel the engineer. Commodious reading and writing and refreshment rooms, where luncheon and dinner are served at a fixed tariff, complete the arrangements of the school buildings.

As is well known, the School of St. George's has long borne an especial *cachet*, as one particularly affected by the "bene nati, bene vestiti,"[1] among aspirants for a diploma. In rougher days, when a pilot coat and an absence of collar were the outward marks of the typical medical student, curious tales went the round of the city schools, how the St. George's men dissected in white kid gloves, and wore evening dress when they attended the Surgeons in the wards. A process of levelling up has long since taken place; the student of Albert Smith's day is as extinct as the Dodo, and the prowess of St. George's men at Lillie Bridge and Kennington Oval has finally extinguished the legend of the white kid gloves; but the School, owing perhaps to its peculiar position, still retains a good deal of its ancient characteristic, and draws a large proportion of its students from the universities and public schools. The existence of an important school of medicine in so favoured and so accessible a spot does not fail to be appreciated by the London residents, especially those of the western districts, whose sons are enabled to prosecute their studies while living at home, without the loss of time and health involved in long daily journeys by omnibus or underground rail. A pleasant walk through park and gardens brings the student from Kensington, or Bayswater, or Notting Hill to the scene of his morning's work, and the proximity of the Victoria stations places the hospital in direct connection with all the southern and western suburbs.

The most important money prizes offered to students at St. George's are:—The William Brown Exhibitions of 100*l.* per annum, tenable for two years, and of 40*l.* per annum, tenable for two years, and the Brackenbury prizes in Medicine and Surgery, value 32*l.* 6*s.* each. In addition, the Treasurer's prize, the Thompson medal, the Brodie and Acland Clinical prizes, the Henry Charles Johnson prize in Anatomy, the Pollock prize in Physiology, Sir Charles Clarke's prize, and three general proficiency prizes, of smaller value, are annually competed for.

[1] The remainder of the All Souls' formula is scarcely applicable to the school of Chambers and Young, of Hunter and Brodie.

An exceptional value attaches to the hospital offices which are open to students of St. George's, both on account of the length of the term of office, and of the magnitude of the charge which is placed upon the officers. No extra fee is asked for any office whatever, and all are awarded as the result of open competition. After passing through the usual dresserships and clinical clerkships, which are an obligatory part of the curriculum, the intending house-surgeon or house-physician is called on to compete with his fellows for the post of Assistant to the Registrar. The successful competitor then passes six months in systematically observing and recording the cases in the wards under the Registrar's supervision; alternating his work, on the surgical side, with a period of assistantship in the ophthalmic department. Having completed this first six months' work, he obtains by another competition the office of Assistant House-Surgeon or House-Physician, and spends a second period of six months in attending on the out-patient department under the instruction of the Assistant Physicians and Surgeons. From the subordinate position he passes at the expiration of the six months into the full House-Surgeoncy or House-Physiciancy. These offices are held for twelve months, and the officers are provided with board and residence in the hospital.

The hospital appoints at one time two House-Surgeons and two House-Physicians, who share the heavier duties of their office week and week about. Each House-Surgeon will therefore have on an average about 90 cases, and each House Physician about 70 cases under his charge, the entire responsibility of which rests upon him in the absence of the visiting Physicians and Surgeons. He is called on further to deal with such urgent cases as arrive, and to attend the visiting officers, to whom he is attached, upon their rounds of the wards. By a tacit custom, moreover, he is expected to aid in instructing the clinical clerks, dressers, and other students who accompany him on his morning rounds. The value of two years of such training and work as this, before entrance into ordinary practice, it would be difficult to over-estimate, and it is not surprising that the competition for these posts is keen.

A further office of great value is open to the house officer on completing his term, that of Obstetric Assistant. The Obstetric Assistant, who attends to the outdoor midwifery department as well as to the gynæcological ward, and holds his office on an annual tenure, is given a salary of 100*l.* a year, with board and residence.

For those who wish to devote themselves to hospital work for a further period, there are open the Medical and Surgical Registrarships, and the Curatorship of the museum, each with an honorarium of 50*l.* a year; and the Demonstratorships of Anatomy, Physiology, Physiological Chemistry, Histology, and Practical Pathology in the School, to all of which a salary is attached. From the men who have served in these last-mentioned posts the staff of the hospital is almost uniformly recruited. The old practice of canvassing a large Board of Governors for hospital appointments, with all its discreditable incidents, is happily a thing of the past, as far as St. George's is concerned. Appointment to staff offices is made by a select standing committee, sedulously guarded from communication with the candidates; that to junior offices is determined by the recommendation of the Medical School Committee, who are intimately acquainted with the merits of the applicants. A student entering at St. George's with the view of eventually becoming attached to the staff and joining the higher ranks of London consulting practice, thus knows that his course is clear before him, and that his prospects depend entirely on his own exertions.

GUY'S HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

The medical school of Guy's Hospital is provided with every requirement for giving the students a thorough and complete education. There are two large theatres, the Anatomical and the Chemical Theatre. In the former are delivered the lectures on Anatomy, Physiology, Medicine, Surgery, Midwifery, Mental Diseases. Adjacent to this are class-rooms, one of which is fitted with all the appliances in splints, bandages, models of dislocations, &c., for the classes in Practical Surgery. Another is a large room suited for the practical classes in Histology, Zoology, and Botany, and in this also are held the various written examinations for testing the students' knowledge, and for the award of prizes. Two other rooms are used as histological laboratories. The dissecting room has been enlarged from time to time, and is now a spacious and lofty room, lighted entirely from the top and well-ventilated; and connected with it is a smaller room with every arrangement for special demonstrations on the dissected subject. Dissection is now carried on both summer and winter, as for several years the subjects have been perfectly preserved for long periods by the injection of glycerine and arsenic. The students' work in the dissecting room is supervised by three demonstrators, and two assistant-demonstrators. Special demonstrations are given regularly during the winter session, and students who are candidates for the various anatomical examinations are divided into classes, systematically taught and tested from time to time by written examinations. In the Chemical Theatre are delivered lectures on Chemistry, Physics, Medical Jurisprudence, and Materia Medica, as well as clinical lectures in Medicine and Surgery. It is fitted with appliances for lecture experiments, and close by are the lecturers' private laboratory, and a laboratory arranged for large classes of Practical Chemistry. In all these various departments, besides the lectures and classes prescribed by the examining bodies, special classes are held for the examination of the Royal College of Surgeons and for the examinations of the University of London. Students find further opportunities of study in the Library, containing upwards of 5,000 volumes, which is open to all students, and from which books may be taken out for a limited period by special arrangement, and in the Museums, which are situated in different parts of the Hospital. On either side of the Anatomical Theatre are two large rooms forming the Pathological Museum. This contains not only the various morbid specimens arranged according to the physiological systems of the body, but also a unique collection of 800 wax models, the work of the late Mr. Joseph Towne. These comprise not only a complete series of models of diseases of the skin, illustrative of typical forms, but several models of rare or anomalous forms of skin disease; a large number illustrative of other conditions, such as gout, tumours, &c., and finally some accurate representations of typical visceral lesions, such as cerebral hæmorrhage, pneumonia, phthisis, which are of service in the lectures on Medicine and Pathology.

The Anatomical Museum also contains a collection of wax models by Mr. Towne, numbering over 200. They include perfect representations of dissections of every part of the body, and a number illustrating the anatomy of the lower animals, and the development of ova. This Museum also contains a complete zoological collection of typical specimens of the several divisions of the animal kingdom. The Materia Medica Museum contains specimens of all the drugs in the Pharmacopœia, with their several preparations; as well as others commonly used, though non-officinal. All the Museums are open to the constant inspection and use of the students.

Having passed through his earlier studies, the student at Guy's Hospital gains a thoroughly practical aquaintance with his profession by study in the wards, the out-patients' rooms, and the *post-mortem* room. The Hospital contains, besides general medical and surgical beds, special wards for diseases of women, and for diseases of the eye, a large operating theatre, an electrifying room, and spacious out-patient rooms in which arrangements are made for the study of diseases of the skin and of the ear, as well as those mentioned above. The *post-mortem* room has been quite recently built, and offers every advantage for the demonstration of morbid anatomy.

Every part of the Hospital is systematically utilized for clinical study, by the appointment of students for periods of two, three, or six months as reporters, clerks, or dressers. One of the earliest appointments is that of surgical clinical clerk, in which the student, having a certain number of beds allotted to him, keeps an accurate record of the cases therein, being guided and assisted by the Surgical Registrar. He then learns to observe the more obvious facts of ordinary surgical cases. Subsequently he takes the junior dresserships, dresser in the surgery, and assistant-surgeon's dresser, for three months each, and then becomes qualified for the office of medical clinical clerk, whose duties are of a similar kind to those of the surgical clinical clerk, and are superintended by the Medical Registrar. All the students in turn undertake the above appointments; but there are several other offices, *post-mortem* clerks, extern obstetric attendants, assistant-surgeons' clerks, and others in special departments, such as clerks to the obstetric physician, and dressers in the aural and dental departments. These appointments are distributed by a special committee of the staff, according to the merits of the candidates, as judged of by their previous work in the dissecting room, at lectures, in the earlier appointments and at examinations. In a similar way a selection is made for the more responsible appointments, surgeon's dresser, clinical assistant, dresser in the eye wards, resident obstetric assistant, house surgeon and house physician. These are appointed entirely according to merit, and without additional payment; the last three reside in the Hospital, free of expense, and the surgeon's dressers also for a short time during their period of office.

As an incentive to careful study, the medical school offers several prizes and scholarships. There are two open scholarships of 125 guineas each, the Arts Scholarship for classics, mathematics, and languages; and the Science Scholarship for chemistry, physics, botany, and zoology. Prizes are offered at the end of each year in the subjects of the year's work. In the first year 50*l.* and 25*l.* In the second year 25*l.* and 10*l.* (Joseph Hoare Prizes). In the third year 25*l.* and 10*l.* In the fourth year 25*l.* and 10*l.*; and certificates to candidates who have done creditable examinations. In addition there are the following special prizes:—Two gold medals given by the Treasurer for clinical medicine and clinical surgery respectively; the Gurney Hoare prize of 25*l.* for clinical medicine: the Mackenzie Bacon prize of 10*l.* for medical ophthalmoscopy; the Beaney prize of 30 guineas for pathology; the Burdett prize of 10*l.* for hygiene; the Sands Cox Scholarship of 15*l.* per annum for three years for physiology; the Michael Harris prize of 10*l.* for anatomy.

The Pupils' Physical Society, which meets once every fortnight during the winter session for the discussion of medical subjects, also awards five prizes of 5*l.* each, and one of 10*l.* for papers and essays presented to it, and for excellence in debating.

KING'S COLLEGE AND KING'S COLLEGE HOSPITAL.

(By a Professor of the Medical Faculty.)

King's College was founded by Royal Charter in the year 1829 and opened in 1831. Its foundation was undoubtedly due to the creation in 1826 of what was then called the "University of London," in Gower Street, and the fear that the new institution, while widening the bases of a purely secular education, would, by definitely displacing theology from the curriculum, refuse to religious training any recognition in education. The leaders of the Church of England at that time naturally became alarmed, and at once took action to form a teaching institution in which definite religious training on the principles of the Church of England should be combined with a full and thorough theoretical and practical scientific education. The Duke of Wellington placed himself at the head of the movement, and the first meeting of its supporters was held at the Freemasons' Tavern on Saturday, the 21st of June, 1828. The constitution of the College as it now exists was then determined on, viz., a principal to superintend the general discipline, professors and tutors for the various branches of literature and science, a council to conduct the general affairs of the institution, composed of a number of life governors and official governors and some elected members, with the Archbishop of Canterbury as visitor, and His Majesty the King as patron. At all times the College has been resolutely kept aloof from all special parties in the Church, and to this determination was due the first important secession from the list of its founders, that of Lord Winchelsea and many of the Ultra-Protestant party, in 1829. A virtual "Conscience Clause" has always been in operation, and students of all creeds, some not even Christians, have been freely admitted.

The foundation was intended to be on a large scale, and probably 150,000*l.* has been spent on the building and establishment of the College, without any professorial endowment, so that the incomes of the teachers have always been, and still are, dependent on the fees paid by the students only. In the year 1831, on the opening of the College, it consisted of a department of general literature and science, a medical department, and the school. Rooms for a certain number of resident students, then a new feature in London colleges and medical schools, were part of the original plan, and this feature was more fully developed as the College grew older. At present rooms are provided for about thirty students. The first principal was the Rev. William Otter, M.A., afterwards Lord Bishop of Chichester; the first head-master of the school was the Rev. Dr. Major, and among its first professors in science were the Rev. T. G. Hall, in mathematics, the Rev. H. Moseley, in natural and experimental philosophy, Nassau Senior, in political economy, Charles Lyell in geology, and Daniell in chemistry. The actual work of the College was opened on October 8th, 1831, introductory lectures were given on botany, by Professor Burnett, and on chemistry, by Professor Daniell, and the lecture rooms were soon well filled. The first lecture on the separate opening of the medical session was delivered by Professor J. Henry Green, F.R.S., in October, 1832, and the following list contains the names of the eminent professors who formed the first medical staff, with the subjects on which they lectured:—Herbert Mayo, F.R.S., General and Descriptive Anatomy, Physiology, and Pathological Anatomy; Richard Partridge, Practical Anatomy and Dissections; Gilbert Burnett, F.L.S., Botany; J. F. Daniell, F.R.S., Chemistry and Chemical Demonstrations; Bissett Hawkins, M.D., Materia Medica and Therapeutics; Francis Hawkins, M.D., Principles and Practice of Physic; Thomas Watson, M.D., Forensic Medicine; Robert Ferguson, Midwifery, and the Diseases of Women and Children; J. H. Green, F.R.S., Principles and Practice of Surgery. For the lectures, being all then required by the College of Surgeons and the Apothecaries' Hall, the total fees were 54*l.* 12*s.*

In 1833, the second year after the opening of the Medical Department, the number of matriculated students was 77, and of occasional students, 233. Frequent class examinations were instituted from its very commencement, and all students, occasional as well as matriculated, were expected to attend them. A regular register of attendance on lectures and examinations was also kept. Students were earnestly recommended to devote themselves for some time to the general studies of the College, before they entered on a more exclusively professional course of instruction, and it is worthy of notice that a course of instruction in medical Latin is specially mentioned in the first medical prospectus. It was not for many years after this that passing a preliminary examination in arts was made compulsory on every medical student by the Examining bodies, and this great reform was always strenuously urged by the medical authorities of King's College. On the 18th May, 1832, the Lord Bishop of Llandaff presided at the first distribution of prizes, in the Medical School, and among the successful students were the late Mr. John Soden, of Bath, and Mr. Edward John Chance, of London. In 1833 the Leathes Endowment Prize was instituted, Messrs William Harris, Leacock, and Edward Tweddell Atkinson being the first prizemen; and in 1839 the late Dr. Warneford began his munificent endowments towards scholarships and prizes by founding the Warneford Prize, which was taken by William Allen Miller, who afterwards succeeded Professor Daniell in the Chair of Chemistry. The first scholar in 1842 was George Johnson, the present professor of clinical medicine in the College. In 1836 the Institution in Gower Street had been incorporated by charter as "University College," and in 1837, mainly owing to the rivalry between the two bodies, the present University of London was founded as an Examining body, granting degrees, and power was given to it to affiliate the two Colleges and other colleges of higher education.

Meanwhile, there had been some important changes in the teaching staff of King's College. In 1835 David Don, F.L.S., had succeeded Professor Burnett in the Chair of Botany, and Dr. Paris followed Dr. Bissett Hawkins as Professor of Materia Medica, but in 1836 the greatest alterations previous to the establishment of King's College Hospital were made in the professoriate. On the resignation of Professor Herbert Mayo, the Chair of Anatomy was divided, Professor Partridge devoting himself to descriptive and surgical anatomy, whilst Dr. Robert Bentley Todd was appointed Professor of general anatomy and physiology; Dr. Royle succeeded to the Chair of Materia Medica; Mr. Arnott and Dr. Thomas Watson took charge of the teaching of surgery and medicine; Mr. Fergus followed Dr. Watson in forensic medicine, and a new Chair of Comparative Anatomy being made, T. Rymer Jones was elected as the first professor. It was during his tenure of the professorship of medicine in this College that Sir Thomas Watson's celebrated and classical lectures were given, and so materially assisted in increasing the reputation of the young school.

The chief drawback to the thorough and efficient medical education contemplated by the founders of the College, and anxiously desired by the teachers, was the want of a hospital for the purposes of clinical teaching. The students were obliged to obtain practical instruction and ward work at the existing hospitals under other authorities, who looked with some jealousy and

distrust on such of their surgeons and physicians as were attached to the new institution. For the due development of the Medical School it had therefore become a matter of urgency that a hospital should be obtained, and that the eminent teachers at its head should have proper scope for their practical skill as well as their acknowledged theoretical efficiency. In the year 1839, King's College Hospital was opened on the site of the old St. Clement Danes' Workhouse, in Portugal Street; 120 beds were at once made available for teaching purposes and its position, in one of the poorest and most densely populated parts of the Metropolis, was especially favourable for the reception of the worst and most varied forms of disease. In consequence of the creation of the hospital further changes took place in the teaching staff; and Dr. Watson and Mr. Arnott, electing to remain at the Middlesex Hospital, resigned their professorships and became merely consulting physicians. Dr. George Budd undertook the lectures on medicine and Mr. William Fergusson was elected professor of surgery. The first members of the hospital staff were—Surgeons, Richard Partridge, William Fergusson; Physicians, Robert Bentley Todd, M.D., and George Budd, M.D. Robert Fergusson for diseases of women and children; Physician Accoucheur, Arthur Farre, M.D.; Assistant Surgeons, William Bowman, John Simon; Assistant Physician, William A. Guy, M.B., and Arthur Farre, M.D., for diseases of women and children; Surgeon-Dentist, John Tomes. The first House-Surgeon was Henry Lee and the first House-Physician Henry Elton.

A more distinguished staff of officers could not possibly have been brought together. Farre, Simon, Bowman, Guy, and Tomes are still living, and we need only point out how fully their subsequent career has testified to the wisdom of the Council's selection. The sparkling originality and successful teaching of Partridge, the thorough kindliness and extensive erudition of George Budd, who has so recently passed away, are household words among all old King's men. But undoubtedly among the first teachers Todd and Fergusson are the names that will be the longest kept in memory, and will be first recalled when the old hospital is spoken of, for in 1861, the present building, with its 220 beds, took the place of the former makeshift.

Robert Bentley Todd gave the whole of his life-work to King's College and King's College Hospital, for in 1836, at the early age of 27, he began to lecture on Physiology, and he only resigned his office of clinical physician at the close of 1859, just six weeks before his death. His name will always be identified with the "alcoholic" treatment of disease, in favour of which perhaps even now the last word has not been spoken. We prefer to remember him as the accurate clinical observer, the correct diagnostician, the fearless exponent of unpopular views, and the earnest and convincing teacher. Probably no man was ever more truly loved and admired by his pupils than Robert Bentley Todd. William Fergusson was well known as a successful demonstrator of anatomy, and a bold operator in Edinburgh when he was appointed the surgical head of King's College Hospital. He was less successful as a teacher, perhaps, than as an operator, yet those who daily attended to Fergusson's maxim "Learn with your eyes as well as your ears" will place him on a higher level in this respect than those who only casually heard him. Imbued with the teaching and example of Liston and Syme, he was at his best in the operating theatre conspicuous for the brilliancy and ease with which he performed the most difficult and unusual operations, he at the same time simplified his act by always leaning to what he called "conservative" surgery. His self-command and temper, unperturbed by any unforeseen circumstances, were peculiarly striking. As a result of the teaching of the exceptional staff then at the head of King's College, it may be mentioned that alumni of this school have been elected to appointments in every medical school in the Metropolis, with one exception only.

Since 1861 new chemical and physiological laboratories, and an enlarged dissecting-room have made King's College a well appointed and even an almost ideally complete medical school. With the new developments in medical education, King's College has kept pace. Special teachers and professors have taken charge of the teaching of biology and physics, whilst tutorial and practical instruction has been largely increased for the requirements of the preliminary examinations at the University of London and the Royal College of Physicians. On the death of Sir William Fergusson, in 1877, it was thought desirable to strengthen the surgical staff, and Mr., now Sir Joseph, Lister was induced to resign his appointment at Edinburgh, and to accept a clinical professorship and the post of surgeon at King's College Hospital. This appointment at once gave an impetus to the study and practice of scientific surgery at the hospital, and the wisdom of the Council's choice was shortly apparent in a considerable increase in the number of entries of students in the Medical Department. By thus becoming the head-quarters of antiseptic surgery, King's College Hospital has increased its attractiveness, not only for its own students, but also for the practitioner, from whatever country he may come. The medical students at the College, probably from being under more direct discipline, and drawn to a large extent from the relatives of the clergy of the Church of England, have been in a very large proportion public-school men, and we question if the failures are so great as Sir J. Paget's well-known averages. Athletics have always been assiduously cultivated. In the foundation of the Inter-Hospital Athletic sports King's College men took a great share, and for many years produced winners in all the principal races, whilst the Inter-Hospital Cricket matches were mainly due to their initiative, and for the first two years they held the champion cup. An athletic club has recently been formed, and a large piece of land taken by the Council close to Wormwood Scrubbs Station for lawn tennis, cricket, and football. Entrance exhibitions in science and literature, to the amount of 250*l.* per annum, have been placed at the disposal of the Council by the munificence of the late Dr. Warneford, Mr. T. G. Sambrooke, and the Cloth-workers' Company, and besides many endowed and class prizes, medical scholarships to the value of 130*l.* are awarded annually. The residents at the Hospital are elected by competition, and have rooms and commons free, and the registrars are endowed officers. A marked point in the tenure of the resident appointments is the absence of a resident superintendent, so that in the absence of the visiting officers the house-surgeons and house-physicians are in sole charge, and the names of the eminent men who have held these offices show how good a training is secured by giving them such responsibility and scope for learning medicine and surgery. Selected students are made Associates of King's College each year, and Honorary Fellows have been elected since 1847, as a special mark of distinction.

THE LONDON HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

Every hospital and medical college has some advantages and peculiarities that offer attractions to those about to begin their medical education, and the variety of choice tends to embarrass rather than help

one who has to select an *alma mater*. In pointing out the advantages offered by the London Hospital and Medical College, the writer desires above all things to avoid the disparagement of other hospitals and schools.

The especial attraction of the London Hospital is that, owing to its great size and position, it offers, in excess of every other medical school, an enormous amount of clinical material available for study and teaching purposes. In order to appreciate the importance of this fact we must point out that to gain a thoroughly competent knowledge of our profession two things are essential, namely: good systematic teaching, and abundant opportunities at the bedside, and in the dead-house, of acquiring a large practical experience and insight into disease in all its many and varying forms. No didactic teaching of medicine and surgery, however good, can make a fully equipped practitioner of medicine. Such teaching may lay the foundation for acquiring knowledge, which will up to a certain point be of the greatest value and assistance to the student, but the structure will be dwarfed and incomplete unless accompanied by large clinical opportunities. Such teaching may make a scholar, but it will not make a successful doctor; for medicine is an art as well as a science, and must be learned by studying nature, diseased and distorted though it be, and not from books and lectures. Books and lectures can never develop and ripen the habits of observation which are essential to a true knowledge of disease. These can only be gained by long and patient study at the bedside and in the *post-mortem* room. It is not sufficient to *walk* the hospital, that is, to accompany the teacher in his visits to the wards, but the student must have the training and responsibility of individually watching patients day by day, and of recording their conditions, and of personally adapting the appliances of surgery under supervision before he is qualified to treat the diseases and injuries he will afterwards be called upon to deal with. Hence the failure of some teaching establishments, with hospital opportunities insufficient for the number of students. Such establishments turn out students who may be successful at examinations such as test only book knowledge, but when the education of these students is supposed to be complete they find it has really to commence. This is evidenced by the fact that a number of legally qualified men come each year to the London Hospital from British and other Universities to supply the deficiencies of their medical education, and eagerly fill the subordinate appointments open to junior students.

The London Hospital stands in the midst of the large manufacturing region of East London, quite close to the Docks, and in the centre of a densely populated, but poor neighbourhood. It is the largest general hospital and contains nearly 800 beds. The beds are fully occupied, and last year 7,976 patients passed under treatment in its wards. The great size of the hospital and the number of patients necessitate a proportionately large number of offices, which afford the greatest educational opportunities to the student. He can, as a rule, hold all the appointments in turn, without waste of time in waiting for them. And though the number of students has undergone a remarkable increase during the last few years, there is no likelihood, owing to the great size of the hospital, of this special feature being lost. There are the following resident appointments:—five House Physicians, five House Surgeons, a Resident Accoucheur, and two Resident Maternity Pupils. All the resident officers are provided with rooms and board entirely free of expense, and all these offices are open to the full students of the hospital without additional fee. At some colleges a salary is attached to the resident offices, but the holder is required to pay for his board and lodging, or the student is required to pay an extra fee for the privilege of holding office, both of which often mean expense to the student. The fact that the resident offices are entirely free, and entail no expense on the holder, is especially important to realise, as it enables any good student, to whom the expense of his education is a great consideration, and who would otherwise be compelled, as soon as he has obtained his diploma, to seek some means of subsistence, to hold these appointments, which are simply invaluable in the experience and knowledge they confer.

Every student is *required* to act as in-patient clinical clerk, dresser, and *post-mortem* clerk, for a certain period, though usually this period is voluntarily exceeded. As already stated, there are no extra fees for dresserships. The physicians and surgeons take every opportunity of making use of the large number of patients in the wards for the instruction and training of the students. The out-patient departments are on a scale proportionate to the size of the hospital, and last year there were 64,256 out-patients. In the out-patient departments the students are instructed in elementary medicine and surgery, by the physicians and assistant physicians, and the assistant surgeons, so that when their ward work commences, they have the requisite training to enable them to perform their duties. There are special departments for diseases of the Eye, the Ear, the Teeth, and the Skin, and the number of patients attending in these departments is so large that the student who avails himself of his opportunities cannot fail to obtain a competent knowledge of the more or less specialised branches of medicine. There is also a completely equipped Obstetric department, with wards and an out-patient department for the study and treatment of gynæcological cases, and a maternity department, for the attendance of parturient women at their own homes. The opportunities of obtaining practical experience in midwifery are simply unlimited.

The arrangements of systematical lectures and teaching are as complete as possible. In the winter session there are lectures on Anatomy (Mr. Frederick Treves), Physiology (Mr. McCarthy), Chemistry (Dr. Meymott Tidy), Experimental Physics (Mr. Page), Medicine (Dr. Stephen Mackenzie), Surgery (Mr. Rivington). In the summer session the following courses are given:—Midwifery and Diseases of Women (Dr. Herman), Morbid Anatomy and Pathology (Dr. Sutton), Toxicology (Dr. Meymott Tidy), Medical Jurisprudence and Public Health (Dr. Sansom), Materia Medica (Dr. Prosser James), Practical Chemistry (Mr. Page), Botany (Dr. Francis Warner), Comparative Anatomy (Mr. C. W. Mansell-Moullin), Practical Histology (Mr. McCarthy), Practical Surgery (Mr. Reeves), Operative Surgery (Mr. Rivington). Besides these lectures, there are courses of lectures on Ophthalmic Diseases (Mr. James Adams), Aural Diseases (Dr. Woakes), Diseases of the Throat (Dr. Morell Mackenzie), Anatomy and Pathology of the Teeth and Dental Surgery (Mr. Ashley Barrett). In the winter and summer session Mr. Jonathan Hutchinson, Emeritus Professor of Surgery, gives two short courses of lectures on Clinical Surgery.

The standards of the Examining Boards have of late years advanced, and, in order to meet an evident need, special Tutorial Classes have been instituted for all the examinations, and especially for the Preliminary Scientific and Intermediate M.B. London Examinations, and for the Primary Examination for the Fellowship of the Royal College of Surgeons. Great care is taken with the teaching in the department of practical anatomy, and the supply of subjects is always so large that the new student can count on getting a "part" at once instead of wasting several weeks at the commencement of the winter session before settling down to dis-

section. The advantages of a large supply of subjects cannot be overrated. A sound knowledge of anatomy can be obtained in the dissecting room, and in the dissecting room only. When work commences in the department of practical anatomy at the beginning of the coming session, some twenty bodies will be available for use on the first day of the session. At the London Hospital every student can dissect the entire body twice during his first two winter sessions, and facilities are offered to gentlemen preparing for the higher qualifications for undertaking special anatomical work. Dissecting is also carried on during the first two months of the summer session. The ample supply of bodies is taken advantage of during that session for the teaching of operative surgery in an exhaustive manner.

Though the hospital is situated in a neighbourhood that has a somewhat evil reputation (not by any means, from a sanitary point, deserved) the writer knows by experience, having lived there when himself a student, that residence there is healthy and cheerful, if not *élite*. Good lodgings, at reasonable charges, are easily obtainable. At the present time, however, a student may live at any part of London he prefers, or in the suburbs, the numerous railways, with conveniently situated stations, bringing him quickly to the hospital.

The material wants of the student are not neglected. There is a Students' Club, where refreshments of all kinds can be had, and a Resident College in contemplation.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

The first stone of this Hospital was laid in the year 1845, by the late Prince Consort, and the Institution was enlarged in 1865, when the Prince of Wales opened a new wing. This year the Princess Louise conferred a similar distinction on a second wing, containing 70 additional beds, which was built through the liberality of the late Mr. J. F. Stanford, who left 25,000*l.* for structural improvements. The Hospital is managed by an open Board of Governors (President, Lord Carlingford), who meet every Friday at 4.30 p.m.

It contains 270 beds, 130 of which are devoted to medical, and 140 to surgical cases. Two wards are appropriated to the diseases of children, and one to those of women; beds are also provided for ophthalmic, aural, and cutaneous cases. During the past year relief was afforded to 2,322 in-patients, and 25,000 out-patients and casualties. Among some of the early teachers on the medical and surgical staff who have now passed away, may be mentioned—Sir James Alderson, late President of the College of Physicians, Dr. Francis Sibson, Dr. Tyler Smith, Mr. Coulson, Mr. Ure, Mr. Toynbee, Mr. Gascoyen, Dr. Murchison, and among those who have retired from active work in the Hospital and School—Messrs. Samuel and James Lane, Mr. White Cooper, Dr. Graily Hewitt, Dr. T. K. Chambers, Dr. Markham, Dr. Burdon Sanderson, Mr. Ernest Hart, Mr. Spencer Smith, and Dr. Farquharson, M.P.

The Hospital is situated in one of the most pleasant and open districts of London, and by its nearness to the Great Western Terminus, and to the Praed Street, Bishop's Road, and Edgware Road Stations of the Metropolitan Railway, students are enabled to live conveniently at short distances from it. A Students' Club has lately been founded, and the club rooms are situated in the basement of the Mary Stanford Wing, and comprise a library, reading-room, and dining-rooms. The Medical School has been constructed with careful attention to ventilation, and in the additions recently made to the school buildings, every sanitary requirement has been amply supplied.

The School, in 1883, was considerably enlarged, at a cost of 6,000*l.*, and many additions were made in the Physiological and Chemical Laboratories. During the present year the past and present students of the Hospital have subscribed largely towards a fund for thoroughly fitting up the physiological laboratories for the double purpose of advancing the interests of the School and of commemorating the services of three of their late teachers, Dr. Sibson, Mr. Lane, and Mr. Gascoyen. During the past year some alterations have been made in the teaching staff. Dr. Waller has been elected to the Chair of Physiology, and Dr. Crichton Browne to that of Psychological Medicine. The Medical Tutor, Mr. Pepper, after six years' service, has resigned his appointment into the hands of Mr. Silcock.

One open scholarship in natural science, of the value of 100*l.*, and four of the value of 50*l.*, tenable for one year, will be competed for on Tuesday, September 23rd, 1884, and following days. Subjects: — Inorganic chemistry and experimental physics, with either botany and vegetable physiology or zoology (as defined in the syllabus of subjects for the preliminary scientific examination in the London University calendar). There will be a practical examination in addition to the paper in all the subjects. Candidates must not have completed a full year of study at a London Medical School. No candidate will be allowed to hold a scholarship or exhibition at another Medical School in London. The successful candidate in each case will be required to enter at the Hospital as a perpetual pupil immediately after the examination.

In addition to the above, at the same examination, a scholarship of a hundred guineas is offered for competition to such students of Epsom College as are sons of medical men. Names of intending candidates should be forwarded on or before Saturday, September 20th, to the Dean.

Also in addition to the above, scholarships of 30*l.*, 25*l.* and 20*l.*, are offered annually for first, second, and third years' students respectively.

Besides the clinical instruction and lectures given in the wards daily, distinct clinical lectures will be given on Wednesdays throughout the Academical year, at 3.30 p.m., in the Anatomical Theatre. All the Medical Appointments in the Hospital, including the five House Surgeoncies, are open to its pupils without further fee, an advantage of the highest importance to the student, and a valuable addition to the scholarships and prizes. Preference is given to the qualified perpetual pupils of the Hospital. *Post-mortem* examinations are made by Mr. Silcock, the Pathologist, at 2.30 p.m., as opportunities occur. About 300 inspections are made annually. Surgical operations are performed on Wednesdays at 1.30 p.m. The Medical Society meets on alternate Wednesday evenings, during the winter session, at 8 p.m., for the exhibition of pathological specimens, the discussion of clinical cases, and the reading of papers on medical, surgical, and collateral subjects by the students. The museum is open to students; it contains about 3,000 specimens, illustrating healthy and morbid anatomy. Special classes are held for the preliminary scientific and intermediate M.B. of the University of London, and for the F.R.C.S. examinations.

The session will open on Wednesday, October 1st, at 3.30 p.m., with an introductory lecture by Dr. Lees. On the same evening Dr. Alfred Meadows will take the Chair at the Annual Dinner of the Past and Present Students. On Thursday, October 2nd, a *conversazione* will be held at 8.30 p.m., in the Hospital and new school buildings

THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

Although unable to boast of great antiquity, the Middlesex Hospital has during the major part of the 140 years of its existence taken a prominent share in the work of medical education. During most of this time its sphere was confined to clinical instruction, and in the interval that elapsed between the foundation of University College and the building of University College Hospital, it was for this purpose resorted to by the students of the Medical Faculty of that College, amongst whose professors were some of the leading members of the Middlesex Hospital Staff. Then came the decision to found a medical school in direct connection with the hospital, which was carried into effect in 1835, so that the session now to be opened will be the fiftieth of the independent existence of this medical school. The buildings, erected in a corner of the hospital garden, originally comprised a laboratory and class room, library, lecture theatre, dissecting room and museum. The dissecting room was narrow and encircled the theatre, but more than 30 years elapsed before any material alterations were made. At length, owing to the increasing number of students and the needs of education, these became imperative. New class rooms were added, the old theatre removed, and the present dissecting room constructed on its site, and a new spacious theatre was built. At the present time the accommodation is sufficient for its purpose ; but the hope may reasonably be entertained that the buildings may be further extended at no distant date.

Systematic lectures are delivered here regularly throughout the winter and summer sessions, the largest courses being Chemistry and Anatomy, each four times a week ; Physiology, Medicine and Surgery, each three times, the other winter courses including Practical Surgery, two and three times, and Pathological Anatomy, twice a week. In the summer session the lectures comprise Practical Chemistry, Botany, Practical Physiology and Histology, Materia Medica, Midwifery and Forensic Medicine, each three times a week ; and shorter courses of Comparative Anatomy, Psychological Medicine and Public Health. Many of the hospital staff hold lectureships, but the subjects of Chemistry, Physiology, Materia Medica and Psychological Medicine, are taught by lecturers not upon the staff. It will be seen that the school is essentially a *medical* one ; and that the fact is recognised that instruction in preliminary scientific subjects is not a duty that should be imposed on a medical school. Although this fact may prevent the enrolment of students intending to graduate at the University of London, unless they have previously passed the preliminary scientific examination, it is, in the present writer's opinion, a limitation founded on a right principle. The stress laid by the University on a preliminary scientific training implies that this should be full and thorough ; and it is needless to multiply centres of scientific study, which require for their equipment not only a large amount of material, but a staff of specially trained teachers. The endeavour to teach science in every medical school tends to defeat the object of the University and hampers the medical curriculum by encouraging the student, to his own detriment, to combine these two distinct phases of his career. In declining to institute special lectureships in Science, the Middlesex Hospital School declares that its primary object is the medical curriculum, and this it endeavours to make efficient and complete.

The opportunities for gaining practical knowledge in the various subjects have been considerably extended of late years. In addition to the anatomical demonstrations, and the practical classes in Physiology, Chemistry and Surgery, there have been instituted classes on Practical Medicine and Midwifery. In Morbid Anatomy, besides the daily work in the *post-mortem* room, the pathologist gives demonstrations every week, and the microscopical examination of diseased tissues has been included in the course of Pathological Anatomy. The continued advance in this direction is one of the most notable features of the present educational system, and one of which the value might be more fully recognised by examining boards. Mention should also be made of the fact that this school has for very many years recognised the importance of tutorial teaching ; and although the duties of the tutor's office have been materially modified, in accordance with its special needs, it is still retained, and ably directed with much profit to the students. Respecting the museum, which is particularly rich in morbid specimens, and to which of late a series of dissected anatomical preparations have been added, it may be said that it is put to good service as a means of education. This valuable collection has hitherto lacked a printed catalogue, but this want will now no longer exist, as the work, upon which much labour has been expended, will probably be published at the opening of the present session.

But the work of the class room and laboratory is subsidiary to that of the hospital, and this school is fortunate in being attached to a hospital that possesses advantages, both natural and acquired, if we may so phrase it. Occupying a central position, it is a building without pretension but remarkably free from the straggling irregularities that often disfigure such edifices, and bewilder the visitor. Nothing could well be devised on a more simple plan than this building, with its two wings and uppermost floor devoted to wards, and the central block to the rooms and offices of the resident staff ; whilst annexed to the eastern wing are the special wards and out-patient department, now made continuous with the block devoted to the Nursing Home. The wards, which contain mostly from twelve to twenty beds, are thus assigned : six to medical cases, nine to surgical (exclusive of three special female cancer wards), and one to gynæcological cases ; and besides these there are several small special wards. The hospital is always well supplied with patients. It cannot be said that there is not here ample scope and opportunity for clinical work ; nor is there any lack of encouragement in its pursuit. The visits are made by each member of the staff three or more times a week ; and in addition to this instruction, surgical and medical clinical lectures are delivered by each in turn throughout the session. The number of Dresserships and Clinical Clerkships is sufficient to enable every student to hold these necessary offices each for a period of six months ; and there are (at present) twelve resident appointments open for competition annually.

During the summer very extensive structural alterations have been carried out in the out-patient department, from the acquisition of property at the south-eastern angle. The block of new buildings is also intended to increase the accommodation of the resident staff, to supply additional wards, and extend the Nursing Home. The new out-patient department and casualty rooms, and the special departments in connection with the hospital, will be thoroughly reorganised, and the facilities for instruction proportionately improved.

As to the various class-prizes and scholarships obtainable by students, reference must be made to the prospectus. It may merely be mentioned that here, as elsewhere, there are entrance scholarships, two in general subjects and one in science open for competition at the end of September.

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Nor would a sketch cursory as this is be complete that did not include mention of the Students' Medical Society, a society that has the distinction of being the oldest of its kind in London. The meetings are held once a fortnight during the winter session, and encouragement in the preparation of papers, exhibition of specimens, &c., is given by a system of prize-awards. The president is a member of the hospital or lecturing staff, but all the other officers are elected by the students from among themselves. The meetings are well attended and have considerable educational value.

Lastly it may be added that the school adheres to the time-honoured custom of prefacing its winter session with an introductory lecture on the 1st of October, a ceremony which is followed in the evening by the less formal gathering of past and present students at dinner. The same social feeling amongst those who in past times have been connected with the school is promoted by the Middlesex Hospital Club, established many years ago, the members meeting annually at dinner in the spring.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

(By a Member of the Staff.)

St. Thomas's Hospital appears to have been first founded early in the 13th century, but it remained little more than an almshouse until the year 1553, when it was endowed with lands as one of the Royal Hospitals by Edward VI., and placed under the Lord Mayor and commonalty of the city of London as perpetual Governors. The endowment was from time to time enlarged by bequests and donations, and in 1693 the fabric of the hospital, then situated in Southwark, was rebuilt. The building was considerably enlarged at different times, but the whole was at length sold, in 1862, to the Brighton Railway Company, and after a temporary sojourn in the Surrey Gardens, the well-known extensive buildings on the Albert Embankment were opened in 1871.

Apprentices appear to have been received at the hospital as early as 1561, but it was not till 1718 that the first lectures, those of William Cheselden, were given. In 1768 St. Thomas's Hospital was united with Guy's, so far as the attendance of students on the surgical practice of the two hospitals was concerned. About the same time the anatomical and surgical school, in connection with St. Thomas's Hospital, was founded, and was subsequently carried to the height of its reputation by the labours of the two Clines, Astley Cooper, and Joseph Henry Green. Meanwhile, the lectures on Medicine, Materia Medica, Midwifery, and Physiology were delivered at Guy's Hospital, and no physician of St. Thomas's was allowed to share in them. But in 1825 the "United Hospitals" were severed, and a complete school set up in both. The majority of the students clung to Guy's and St. Thomas's school began to sink. The establishment of the Aldersgate Street private school, under Tyrrell and Lawrence, materially aided in this declension, as did also the secession of Dr. Elliotson to the newly-established University College, and the foundation of a fresh school at King's College, where for a time the surgical lectures were given by Mr. Joseph Henry Green, although a surgeon of St. Thomas's. Owing to the unprosperous state of affairs, in 1842 the Governors came forward to reorganise the school, and the aid of Mr. R. D. Grainger, whose popularity had been established in the Webb Street private school, was obtained. Mr. Joseph H. Green also rejoined the school; and Dr. Marshall Hall, Dr. Hodgkin, Dr. Martin Barry, Dr. Gregory, and Mr. Benjamin Travers contributed to its efficiency. This state of affairs continued until 1858, when the Governors gave back the management, and its attendant risks, into the hands of the lecturers. For some years it was maintained with difficulty, and at much self-sacrifice on the part of the staff, during what may be termed a transitional period, in the hope, now realised, of its once more developing into an institution worthy of its old traditional glories.

The present hospital contains in all 572 beds, and consists of six blocks appropriated to the reception of patients; with one for the administrative and other offices, and one for the Medical School. The ward blocks, though connected by corridors, stand apart, so as to afford free exposure in all directions. Generally, each ward affords accommodation for 28 beds, which are placed against the piers between the windows, so as to secure thorough ventilation. Of the whole accommodation of the hospital, about 180 beds are appropriated to ordinary medical cases, and 230 to ordinary surgical cases. There are also special wards for the reception of diseases peculiar to women; for diseases of the eye; for venereal affections; for children, and for infectious diseases. The out-patients' department is extensive and well arranged to meet the large demands upon it of the poor and crowded districts in its vicinity, and every facility is afforded for the treatment of different forms of medical and surgical casualties and diseases. Clinical instruction is given to the students both in the wards and out-patient rooms in all branches of medicine and surgery, including the diseases of the eye, ear, skin, throat and teeth, and in vaccination. Clinical lectures are delivered weekly during the session. During the twelve months ending December 31st, 1883, the number of patients admitted into the hospital amounted to 4,450. In the same period, 22,374 out-patients have been treated, and in the maternity department 2,130 women have been attended at their own homes. Casualties to the number of 52,919 attendances were treated during the same period.

The school buildings stand at the southern extremity of the hospital, from which they are quite isolated. They contain ample accommodation for large classes of students. The museum is one of the most important in the metropolis. There is a large reading room and library for the use of the pupils. In addition to these are the various lecture rooms, the dissecting rooms, the laboratories for Practical Physiology and for Practical Chemistry, and the *post-mortem* rooms.

Two Scholarships in Natural Science, of the value of 100*l.* and 60*l.* respectively, are awarded annually, while over 250*l.* in scholarships and prizes, besides several medals, are yearly offered for competition to students who are undergoing their curriculum at the hospital.

Three House Physicians, two Resident and one Non-Resident, and an Assistant House Physician, two House Surgeons, an Assistant House Surgeon, and a Resident Accoucheur are selected every three months from gentlemen who have obtained their professional diplomas; they hold office for three or six months. One House Physician, the Assistant House Physician, and the Assistant House Surgeon, are non-resident, but the other Officers, together with the Dressers and Obstetric Clerks, are provided with rooms and commons during their period of attendance in the hospital, free of expense. An Ophthalmic Clinical Assistant is appointed for six months with a salary at the rate of 50*l.* per annum, with board but not residence; the appointment is renewable for a limited period. Clinical Assistants in the special departments for diseases of the skin, throat, and ear are appointed every three months. Clinical Clerks and Dressers to in-patients are selected to the number of at least 100 in each year. Two Hospital Registrars, at an annual salary of 100*l.* each, are appointed in each year, and there are several other appointments.

UNIVERSITY COLLEGE AND HOSPITAL.

(By a Professor of the Medical Faculty.)

The Institution now known as "University College" was opened as the "University of London" in 1828 on the most unsectarian principles, with the object not only of affording a liberal education of a high class order, but also of conferring degrees. The "Medical Faculty" commenced work on October 1st, and is a month older than any of the other faculties. Having thus a history of little more than half a century, this College has during that period exerted a remarkable influence upon the progress of education in this country, as well as upon many social and other questions of importance. Such an influence has been particularly evident in the improvement of medical education to which it has so largely contributed, as well as in the advantages which it has afforded for the acquisition of scientific knowledge and training. Before University College was founded, medical education in England was in a very low state; but the medical school set a pattern of teaching that raised this branch of education throughout the whole country, and it has continued ever since to occupy a leading position. In 1836 the name was changed to "University College," the power to confer degrees having been transferred to a separate merely examining institution, since known as the "University of London."

At first there was no hospital connected with the College, and arrangements were made with Middlesex Hospital for clinical study. The first portion of the present hospital was opened on November 1st, 1834, and it was subsequently enlarged, but it cannot be denied that until a comparatively recent period the number of cases in the hospital was inadequate to supply the large number of students with sufficient practical work. Nevertheless, it must be noted that the cases were systematically used for clinical instruction, and also that the out-patient departments have always been thoroughly utilized for this purpose. At present the hospital contains 208 beds, which, with the out-patient practice, afford a large field for clinical instruction and study. All the important "special" branches connected with medicine or surgery are now recognised as separate departments, and are systematically taught by members of the staff. Although University Hospital is thus very thoroughly worked for clinical purposes, yet, not only for the sake of the students, but also taking into consideration the vast number of artizan, labouring, and poorer classes for whom this hospital is most convenient, and its proximity to important thoroughfares, crowded with shops, and having a large vehicular traffic, as well as to numerous manufactories of various kinds, and to some of the most extensive and busy railway stations in London, it might be considerably enlarged with great advantage to all concerned. It may be mentioned that the hospital contains a very efficient system of baths, which are of great service in the treatment of patients, and which were established through the efforts of the late Dr. Tilbury Fox, for many years physician to the skin department.

On July 9th, 1878, the first stone of the extension building of University College was laid by Earl Granville, and the new north wing was opened on October 1st, 1880. This additional building afforded most important facilities for the study of physiology, zoology, and comparative anatomy, and chemistry, and the present arrangements for teaching these subjects are probably unsurpassed, even if equalled.

The history of the progress of University College is intimately associated with the names of the eminent men who laboured within its walls as professors, or did no less service as members of the medical or surgical staff of the hospital. Many acted in both capacities. The professors who inaugurated the work at the College consisted of Mr. (afterwards Sir) Charles Bell (Physiology), Dr. Jones Quain (Anatomy), Dr. Conolly (Practice of Medicine), Mr. Samuel Cooper (Surgery), Dr. Anthony Todd Thomson (Materia Medica), Dr. David Davis (Midwifery), Dr. Grant (Comparative Anatomy), Dr. Lindley (Botany). Dr. (afterwards Sir Robert) Carswell was the first Professor of Pathological Anatomy, and Dr. Turner of Chemistry. Taking these subjects individually their history is briefly as follows:—The Chair of Physiology was occupied by Dr. Sharpey from 1836 until 1874, and this eminent physiologist always attracted a large number of students. He was succeeded by Dr. Michael Foster, and on his removal to Cambridge, Dr. Burdon-Sanderson was appointed to the Chair, which he held until recently, when his valuable services were transferred to Oxford, and Professor Schäfer took his place. In anatomy Dr. Jones Quain was followed by Mr. Richard Quain, who had previously taught practical anatomy, and then came Mr. George Viner Ellis, who held the chair from 1850 to 1876; on his resignation Professor Thane was appointed. The Professorship of Medicine has been held in succession by Drs. Elliotson, C. J. B. Williams, Walshe, Jenner, Russell Reynolds, and Sidney Ringer. Associated with the Chair of Surgery are the names of Mr. James Moncrieff Arnott, Mr. Erichsen (who held it from 1851 until 1866), and Mr. Marshall. Dr. Garrod followed Dr Thomson as Professor of Materia Medica, and occupied the Chair for some years. His successors have been Drs. Sydney Ringer, and Frederick Roberts. Since the resignation of Dr. Davis the Chair of Midwifery has only had two occupants, namely, Dr. Murphy and Dr. Graily Hewitt. Associated with Pathological Anatomy are the names of Drs. Walshe, Jenner, Wilson Fox, and Charlton Bastian. Connected with Chemistry or Practical Chemistry are the names of Drs. Graham, Fownes, and Williamson. The Chair of Comparative Anatomy and Zoology, and that of Botany, have each only had two occupants, Drs. Grant and Lindley, the professors appointed at the opening of the College, having held office until 1874 and 1860 respectively, when they were succeeded by Professors Ray Lankester and Oliver. A Professorship of Medical Jurisprudence and Toxicology was instituted in 1849, and was held until 1860 by Dr. Carpenter, followed by Drs. G. Harley, Maudsley, and Poore. The Chair of Ophthalmic Medicine and Surgery, established in 1852, was occupied by Mr. Wharton Jones until 1881, when Mr. John Tweedy was appointed.

A branch of medical education which has of late years undergone special development at University College, is that of hygiene and public health. Professor Corfield was appointed to the newly instituted Chair in 1869, and since that time the subject has progressively increased in interest and importance. The arrangements for imparting instruction in its various departments are now, through Professor Corfield's efforts, of the most complete character. Successful classes for the teaching of operative surgery and practical surgery have been in operation at University College for several years.

Passing now to the Hospital, the original staff consisted of Drs. Elliotson, A. T. Thomson, and Carswell as Physicians; Messrs Samuel Cooper, Liston, and Richard Quain, as Surgeons; and Dr. Davis as Obstetric Physician. At a subsequent period assistant-physicians and assistant-surgeons were appointed, who gained promotion as vacancies occurred. It must suffice merely to mention the names of those who have successively held the several posts. Associated with the Medical Department, in their order of appointment, are the names of Drs. C. J. B. Williams, John

Taylor, Walshe, Garrod, Parkes, Jenner, Hare, Russell Reynolds, George Harley, Wilson Fox, Sydney Ringer, Charlton Bastian, Frederick Roberts, Gowers, Vivian Poore, and Barlow. The Surgical staff includes the names of L. B. Potter (whose early death from a dissection wound was a great loss), Syme (for a very short period), Moncrieff Arnott, Morton, Erichsen, Marshall, Cadge, Statham, Henry (now Sir Henry) Thompson, Berkeley Hill, Christopher Heath, Marcus Beck, Arthur E. Barker, and Godlee. In the Obstetric Department Dr. Murphy succeeded Dr. Davis, and he was followed by Dr. Graily Hewitt, while Dr. John Williams was appointed Assistant-Obstetric Physician in 1872, and is now Physician in this department. Mr. Wharton Jones held the post of Ophthalmic Surgeon from 1850 until 1881 ; Mr. Streatfield served for many years as Assistant-Ophthalmic Surgeon, and now holds the higher post, Mr. Tweedy being Assistant-Ophthalmic Surgeon. The Skin Department was first established under the control of Dr. (Sir William) Jenner, who was then one of the physicians ; subsequently it became a separate speciality, which has been successively in the hands of Drs. Hillier, Tilbury Fox, and Radcliffe Crocker. Mr. Ibbetson was Dental Surgeon for many years, and was followed by Mr. Hutchinson.

It will thus be seen that the names of many who have stood out prominently as leaders of the profession have been associated with University College Hospital as members of its Staff, and some of the most eminent are still on its Consulting Staff, although not actively engaged in its work. The name of Liston cannot be passed over without reference, and the death of this great surgeon, in 1847, was a loss to the Hospital that was deeply felt. It may also be noted that several of the members of the Staff have contributed to medical literature publications which have gained a firm standing in the profession, and are recognised as standard works. It may not be uninteresting to observe that within a recent period the high offices of President of the College of Physicians, and President of the College of Surgeons have been held at the same time by members of the University Hospital Staff, namely, Sir William Jenner, and Messrs. Erichsen and Marshall.

In connection with University Hospital it is only right that special allusion should be made to clinical instruction, which has always been a prominent feature in this Hospital, and has been carried out systematically. It may truly be said that every member of the Staff takes an active interest in this work. Every physician and surgeon receives the title of "Clinical Professor," and there is a special Holme Professor of "Clinical Medicine" and "Clinical Surgery." The Professorship of Clinical Medicine has been held successively by Drs. Walshe, Parkes, Jenner, Russell Reynolds, and Wilson Fox ; that of Clinical Surgery by Messrs. Liston, R. Quain, Erichsen, and Christopher Heath. Several years ago classes were commenced for the more elementary instruction in Clinical Medicine and Surgery, and these have now become so developed and systematised that a most complete practical training may be obtained by any student who chooses to avail himself of the privileges afforded him. Those who conduct these classes are called "Assistant Professors," or "Assistant Teachers," and they work along with and under the superintendence of the Holme Professors.

Owing to the constitution of University College the students attending the medical faculty, as in the other faculties, have come from various parts of the world, and have belonged to different races and creeds. Some of its most distinguished students have hailed from distant colonies, and from India. Their number has varied considerably at different times, and in this respect the College has experienced some checks in its progress. In the first session the number was 165, a remarkable number to start with, but it rapidly rose until in the session 1838–39 it amounted to 494, the highest which has ever been reached. With occasional rises there was on the whole a gradual decrease until the years 1865 and 1866, when the numbers fell to 161 and 163 respectively. After this there was a rapid growth of the medical school in point of numbers, and this has been maintained until the present time, University College in this respect holding its position as one of the leading schools of medicine. Moreover, a large number besides, who are not strictly medical students, attend the scientific classes, in order to prepare for the Preliminary Scientific Examination of the London University.

Although not in any way officially connected, there has always been some sort of traditional association between University College and the London University. A large proportion of students enter with the view of preparing for the degrees granted by this University. Of those who take these degrees, a considerable number come from University College ; the names of its students are usually conspicuous in the Honours lists, and they have also taken a large number of the exhibitions, scholarships, and medals granted in different subjects. Of late years students preparing for medical degrees at the older Universities—Oxford and Cambridge—seem to have recognised the educational advantages to be obtained at University College and Hospital, and are entering for part of their curriculum in increasing numbers. Many students from this College have taken high positions in the public services. It may also be noted that it has trained numerous eminent men who now hold prominent positions on the Staffs of other medical schools and hospitals, both in London and in the provinces.

University College offers to its students considerable advantages in the way of scholarships and prizes. These amount to about 630*l.* annually, exclusive of twelve gold medals and thirty silver medals awarded in the different classes. The appointments at the Hospital are also free, and are awarded according to merit, there being competitive examinations for the higher resident posts, which are usually keenly contested.

A most successful Students' Medical Society has flourished at University College for a great many years, and it has done very good work. There is also a well-established Christian Association. Of late years more attention than formerly has been paid to physical exercise, and now athletics, cricket, boating, football, &c., have their several clubs. There is at present a disposition to develop more the social element among the students at University College, and to increase their *esprit de corps*, which has not always been what it ought to be. A very successful dinner of past and present students was held last October, but this year it is anticipated that its success will be far greater, as it is to be presided over by Sir William Jenner, whose almost unrivalled clinical teaching will never be forgotten by those who were privileged to benefit by it, and who is justly held in such high esteem and respect by the whole profession, as well as by the rising generation of medical students.

WESTMINSTER HOSPITAL AND MEDICAL SCHOOL.

(By a Member of the Staff.)

Westminster Hospital owes its origin to a meeting which was held at St. Dunstan's Coffee House on the 14th of January, 1715, nearly 170 years ago, and first opened its doors at a small house in Birdcage Walk, under the name of the "Publick Infirmary for the Sick and Needy." At this time the only hospitals which existed for the medical and surgical relief of the

sick poor were St. Bartholomew's and St. Thomas's, both having been established and carried on by the religious houses of their respective neighbourhoods, and created royal hospitals soon after the suppression of the monasteries in 1537. Westminster is remarkable as being the first hospital in London which trusted for its support to the voluntary contributions of the public. Guy's Hospital, founded by the munificence of one individual, was not established until a few years later.

After four years' work in Birdcage Walk as an institution for the administration of medical relief, the hospital was opened for the reception of in-patients, with 30 beds, and with an entrance from Petty France. So rapidly did its usefulness develop, that in 1724, having been in existence little more than nine years, it opened its wards in Chapel Street, with 60 beds. At this time the celebrated and courtly Mead, Queen Anne's Physician, whose monument is in Westminster Abbey, was physician to the hospital, and two years later Cheselden, the teacher of John Hunter, was appointed its lithotomist, a post which he held for fifteen years. His portrait hangs in the Board room of the hospital. In 1733, the removal of the hospital to a larger building again became necessary, and a warm discussion arose among the governors as to the comparative eligibility of a house in James Street, and of Lanesborough House at Hyde Park Corner. The majority considered the latter site too far from the poor of Westminster, and determined to purchase the building in James Street, which was opened early in 1734. The minority, with a portion of the medical staff, were dissatisfied with this decision and determined to purchase the lease of Lanesborough House, which in their opinion "on account of the strength of the building and the airiness of the situation was much more convenient to answer the ends of charity." This is the origin of St. George's Hospital.

In James Street, the Westminster Hospital did its work for nearly 101 years, but the building having become dilapidated and the accommodation insufficient the requisite money was collected and a very eligible site was obtained in the Broad Sanctuary, under the very shadow of the grand old Abbey. The new building was well and solidly constructed upon a block of concrete, and was remarkable for its thoroughly efficient drainage and ventilation. The removal of the patients from the old hospital to the new was effected on November 14th, 1834. Westminster had for some years enjoyed a great reputation for its clinical teaching, and at this time its surgeons were Mr. Lynn, Sir Anthony Carlisle, Mr. Guthrie, and Mr. Anthony White; and its Physicians Sir G. L. Tuthill, Dr. Bright, and Dr. Hamilton Roe.

The removal of the hospital to a new building stimulated a portion of the staff to establish a medical school in the same year, but it was not until 1849, that this school became intimately connected with the hospital. Its buildings were then constructed on a site leased for a period of 40 years from the Commissioners of Her Majesty's Woods and Forests. It unfortunately happened that after only three years' occupation, twelve months' notice was given to terminate the lease, the ground being required for the Stationery Office. In the following year, therefore, the school buildings were transferred to the ground at the rear of the hospital. They have been added to from time to time by the erection of light and commodious laboratories, &c., but at the end of 30 years, the requirements of the school have outgrown the space at its disposal. A larger site has recently been obtained next to the Westminster Town Hall, five minutes' walk from the hospital, and upon it, school buildings affording the most complete accommodation will be immediately erected from the plans of Mr. Salter.

To return to the hospital. About seven years ago a sum of nearly 18,000*l.* was expended in repairing and improving the building. Sanitary science was, in 1834, little understood, but in forty years a great advance was made in this respect, and changes of an expensive kind became urgently necessary if the hospital was to offer to its patients and to its students the full benefit of the new knowledge. Towers were built to provide sculleries and water closets outside the wards with cross ventilation, separate cisterns, &c. Bath rooms and lavatories were built. The floors of the wards were relaid and covered with oak parquetry and polished. Chloroform and consultation rooms were added to the operation theatre. The greater part of the hospital was raised another story, affording domitories for the nurses in front, day-wards for the convalescent patients at the ends of the building, and separate wards at the back quite outside the hospital, but approached by a covered way, to which infectious cases can at once be removed from the wards. Healthy and airy as the hospital was before these alterations were made, the condition and appearance of the wards are now much improved, and in the surgical wards, the improved sanitary arrangements and the polished floors together have reduced the cases of erysipelas by more than one half.

Westminster Hospital with its 200 beds and extensive out-patient department, affords in a complete form all the material that is required for a practical medical education. Its size is a very convenient one and it combines the advantages of a general and a special hospital, as it has separate departments for all the specialties which may be legitimately so considered or which require special instruction. These departments are devoted to *obstetric*, *dental*, *ophthalmic*,[1] *aural*, *orthopædic*, *skin*, and *throat* diseases, in all of which it is important that the student should have opportunities of study.

The medical school is proportioned to the size of the hospital, so as to maintain all the advantages of a small school and especially that personal supervision and guidance which every student requires but which is very difficult if not impossible in a large school, and at the same time to secure for every student in rotation clerkships and dresserships both to out and in patients. In the more strictly school subjects also it is hardly necessary to point out the great advantage of personal supervision, aided as it is at Westminster by regular tutorial instruction, and by taking great pains with the students individually in all manipulative work and especially in practical histology.

For another year the Medical School work will be carried on in the present buildings, but it is promised that the new school will be ready to receive the students before October 1st, 1885. Afterwards the rearrangement of the out-patient rooms, on the ground now occupied by the school buildings, will be immediately undertaken, and the result cannot fail to be of great advantage to patients, students, and staff.

The return of Westminster men who have passed their examinations, the prize list, and the importance of the appointments that have been gained all show a high average of success, and it may not be out of place to mention that the first place at the last two examinations for the Indian Medical Service has been occupied by a Westminster man.

Wolverhampton General Hospital.—Fees for hospital practice: — six months, 6*l.* 6*s.*; twelve months, 10*l.* 10*s.*; perpetual, 22*l.* 1*s.* Some members of the Staff receive resident pupils.

[1] Westminster students have also the advantage of being allowed to attend the practice of the Royal Westminster Ophthalmic Hospital.

PROVINCIAL SCHOOLS OF MEDICINE.

UNIVERSITY OF OXFORD.

(By Two of the Science Teachers.)

There is not a complete Medical School at Oxford, but there are excellent arrangements for the study of the so-called Preliminary Sciences—Biology, Chemistry, Botany, and Mechanical Philosophy. Many of the Colleges (Balliol, Merton, Exeter, New College, Magdalen, Christ Church, Trinity, St. John's, and Keble) encourage the study of Natural Science, under the guidance of special tutors; by a few it is admitted as one of the subjects for matriculation. Scholarships to the annual value of 80*l.* for from four to five years, and Exhibitions of less annual value are given every year by some, from time to time by other, Colleges. Balliol, Magdalen, and Christ Church have private laboratories. At the University Museum the teaching in the laboratories, under the direction of the Science Professors, is most complete. In the Radcliffe Library there is accessible to students a place of unrivalled facilities for the consultation of current and periodical literature, Continental and English, in Mathematics, Science, and Medicine. Regular courses of lectures are given by the professors and tutors, of which a list is issued terminally by the Board of Faculty of Natural Science. In February there is competed for annually, by those who have obtained a First Class in any School or a Scholarship, or Prize, open to general competition in the University, one Radcliffe Travelling Fellowship. It is tenable for three years, and is of the annual value of 200*l.* The examination is partly Scientific, partly Medical. The holder must travel abroad, and take the degree of B.M., Oxon.

The *Radcliffe Infirmary* contains 138 beds, and the annual average of in-patients for the last ten years has been 1,265; of out-patients and casualties, 4,686. Surgical accidents and urgent cases are admitted without "turns." There is a special block for children. The members of the staff (three Medical and three Surgical) take pupils for six months' attendance at six guineas, for twelve at ten guineas, and perpetual at fifteen guineas. Advanced students are allowed to act as Clinical Clerks and Surgical Dressers. Practical Pharmacy is taught in the Dispensary. One Medical and one Surgical member of the staff are Clinical Litchfield Lecturers. Attendance at the lectures, given twice a week in Term, and under the authority of the Board of Faculty of Natural Science, is free to members of the University, but does not confer the right of attendance on the general Hospital Practice. Dissection is carried on at the University Museum, under the direction of the Linacre Professor. There is great need for the appointment of a Lecturer in Human Anatomy, in order that students may be certificated for the First M.R.C.S. Examination of the College of Surgeons.

UNIVERSITY OF CAMBRIDGE MEDICAL SCHOOL.

(By a Member of the Staff.)

The course of medical study in the University, and the requirements necessary for the Degree in Medicine have now been arranged in a manner highly advantageous to students entering the profession. Of the increasing popularity of the Cambridge Medical School and the many advantages offered to medical students no stronger testimony can be adduced than that of the yearly list of entries at the different colleges of those intending to pursue medical studies. A glance at the number of entries this year shows that Cambridge is now one of the largest medical schools in England. The arrangements are such that the student can go through the whole course at a very moderate expenditure of time and money. He must enter at one of the colleges, or as a non-collegiate student and keep terms for three years. He can live quite as cheaply as in London, the expenses of residence, lectures, &c., at a college being not necessarily more than 150*l.* per annum, or as a non-collegiate about 100*l.* At most of the colleges scholarships are open for competition in science as well as classics and mathematics. As regards the length of time necessary, it is required of a candidate for the Degree of Bachelor of Medicine that he shall have completed five years of medical study, except he have obtained Honours in any tripos, in which case four years shall be deemed sufficient. It is advisable to take a Degree in Arts, and of great advantage to the student to do this through the Natural Sciences Tripos, as he is enabled to devote his work and energies to the same subjects that will be required of him in the several examinations for the Degree in Medicine, while at the same time he is laying a good foundation of scientific knowledge which will be of the greatest value to him in professional life. The shorter term of four years' necessary study is of no material advantage as it would be unadvisable to attempt to conclude the whole course in so limited time. A brief summary of the course of study recommended is as follows:—A student will do well to enter early, at the age of 16 or 17, prepared to pass his previous examination and additional subjects at the beginning of the October term, if he have not already obtained exemption through the "Local Examinations" in the "Oxford and Cambridge School Board Examinations." It is important to do this as he can then register as a student of Medicine, and at once join the Natural Science and Medical Classes at the commencement of the several courses in the October term. The subjects of the first M.B., namely, Chemistry, Physics, and Elementary Biology, will first occupy his attention, in all of which he will be examined for the first part of the Natural Sciences Tripos. The first M.B. may be passed at the end of his first year, or the following December, and he can then devote himself to the subjects in which he selects to be examined for the Natural Sciences Tripos. In the first part of this examination the student can present himself at the end of his second year. In preparing for the second part he will save time if he selects Human Anatomy and Physiology as two of the subjects in which he desires to be examined, as these are also included in the second M.B. He may enter for the second part of the Natural Sciences Tripos in his ninth term, after which he may take his B.A. degree. During the following long vacation and October term he can continue dissection, preparing to pass the second M.B. in December. A certificate of attendance at a recognised hospital for six months is required of students, previously to entering for the second M.B. This can be obtained at Addenbrooke's Hospital, where regular instruction is given in term time and during the long vacation. Students who pass the second M.B. in December, may with advantage remain on until the end of the following long vacation, studying at the hospital, learning the elements of surgery and medicine and bandaging, and attending the courses of lectures required of them before the final M.B. They are then ready to enter at some London Hospital at the commencement of the October Session, having already acquired some knowledge of the more elementary details of practice. All the lectures for which

certificates of attendance are required before the several examinations may be attended at the University.

The study of Natural Science is carried on at the Museum, where lectures are given on Chemistry, Physiology, Anatomy, and other subjects, and practical instruction is carried on at the numerous laboratories in Biology, Physiology, &c., and dissection at the Anatomical School. Classes are also held in Histology and Pathological Anatomy. At Addenbrooke's Hospital, instruction is given in the elements of Medicine and Surgery, and bandaging. The Museum contains a good series of Pathological preparations.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.

(By a Member of the Staff.)

The University of Durham College of Medicine at Newcastle-upon-Tyne has, during the last few years, attracted to itself a very largely increased number of students. The advantages it offers are numerous, and appear to be every year more highly appreciated. Perhaps its greatest attraction, as compared with other Schools of Medicine, is the fact that only one of the four years of medical study need be spent at Newcastle, while the other three may be passed either at the same place or at one or more of the recognised Schools. The required year's attendance may be taken at any time before the candidate presents himself for the final examination for the M.B. Degree. This regulation has attracted many who were already qualified for practice. For "full" students there are many valuable prizes. Four scholarships of 100*l*. each have been presented by the University of Durham, and are awarded, one every year, to the student who passes the best examination in arts at the time of entry or during his first year. Five other valuable scholarships are given for proficiency in various branches of medical study, and silver medals and certificates are awarded in each class. There are eight useful student appointments at the College, and 27 at the Infirmary. At the latter institution the practice is very large and of varied interest, the patients (about 25,000 annually) being drawn from the whole of Tyneside and the densely populated districts in the neighbourhood. Every opportunity is given to students at the College for learning their work. In the chemical laboratories a separate bench is provided for each student, and the department is under the charge of Professor Bedson, D.Sc., Lond. The anatomy is taught as much as possible by individual instruction, under the able personal guidance of Dr. Mears, who until recently occupied the position of Medical Tutor. There are special departments for practical instruction in pathology, dermatology, ophthalmology, gynæcology, diseases of the throat and ear, and minor surgery, and in operations on the dead body. It is expected that very shortly the College will be moved to more commodious and convenient quarters, and it is hoped that a residential hall may also be provided for the better accommodation of students.

THE BIRMINGHAM SCHOOL OF MEDICINE.

(By a Member of the Staff.)

By the association of Queen's and Mason's Science Colleges for purposes of medical education, and by the amalgamation of the General and Queen's Hospitals for purposes of clinical instruction, students of the Birmingham Medical School are enabled to avail themselves of the whole teaching resources, and nearly the whole hospital practice, of the town. The advantages thus offered to the young man about to commence the study of medicine, compare most favourably with those of any other centre of medical education. Students may qualify themselves for admission to the examinations of any licence-granting body except those of the Universities, which require attendance on their own lectures. All the examinations of the University of London may be passed from here. Students can also make two *anni medici* out of the four required for degrees by the University of Edinburgh. Neither College provides accommodation for residence, but lists are kept of gentlemen prepared to receive medical students. Queen's College—the parent institution—is a well arranged building, situated in the centre of the town, close to the various hospitals and railway stations. Here are taught from the usual professorial chairs all the subjects included in the medical curriculum, except Physiology, Chemistry, and Botany; these courses are given at Mason's College. There are complete and well appointed museums of Anatomy, Pathology and Materia Medica, specially arranged for purposes of instruction, also a well stocked library and reading-room for the use of students. The dissecting rooms are extensive, commodious, well warmed and ventilated, and they have been recently remodelled and enlarged. They are under the immediate superintendence of the Professor of Anatomy, who devotes his whole time to Anatomical teaching within the College. The supply of bodies for dissection is always plentiful. Mason's Science College undertakes the teaching of Physiology, Chemistry and Botany to medical students of the town. Its special professors, its rich museums, and its magnificently appointed modern laboratories, offer advantages to the students of medicine which are equalled at few medical schools in the kingdom. Special classes are held for the matriculation and preliminary scientific examinations of London University. The practices of the General and Queen's Hospitals are amalgamated for purposes of clinical instruction, under the direction of the Birmingham Clinical Board; a body elected from the honorary staffs. The hospitals have a total of 400 beds, and 4,500 in-patients and 45,000 out-patients are treated annually. Clinical practice and lectures commence at 9.30 a.m. daily throughout the session, the operating days being, Tuesday, Wednesday, and Saturday. Attendance upon two-thirds of these lectures is insisted upon. There are special Ophthalmic, Obstetric, Gynæcological and Dental departments, each under the care of a specialist. Practical instruction is given in the use of the microscope, laryngoscope, ophthalmoscope, surgical appliances, &c. Practical Pharmacy is taught in the dispensaries of the Hospitals. There is a special Dental department in the College, associated with the Birmingham Dental Hospital and the Clinical Board. By this arrangement students may qualify for the Dental diploma of any of the examining bodies. The Midland metropolis is particularly well off in the matter of special hospitals. There are in the town the Children's (72 beds), Eye (70 beds), Women's (30 beds), Ear and Throat, Orthopædic and Spinal, Small-pox and Fever, Skin and Lock, and Homœopathic Hospitals; the honorary officers of any of which are willing at all times to show their practices to senior students of the School. Besides the ordinary class prizes—medals and certificates—the following are open for competition to students of Queen's College:—One or more annual Queen's Scholarships, value 30 guineas, given to first year's students on entrance; one or more Sydenham Scholarships, value 30 guineas, tenable for three years by the orphan sons of medical men; two Ingleby Scholarships, value about 10*l*., for proficiency in Obstetric Medicine and Surgery, and Diseases of Women and Children; Sands Cox Prize, value 20*l*., for proficiency at the end of curriculum in Medicine, Surgery, and

Midwifery. The Clinical Board also offer prizes of five guineas each in Medicine and Surgery for senior students; prizes of three guineas each in Medicine and Surgery for junior students; and a prize of four guineas in Midwifery. They also fill up, after competition, the following resident appointments twice annually, viz., medical and surgical assistants and two surgical dressers at the General; obstetric house surgeon and surgical dressers at the Queen's Hospital.

THE BRISTOL MEDICAL SCHOOL.

(By a Member of the Staff.)

The Medical School was founded in 1828, but long before that time lectures on Chemistry and Medicine were given, and regular courses of lectures on Anatomy by two of the surgeons to the Infirmary. A dissecting room was soon opened, under the direction of Dr. Riley, in Lower College Green, and another at the rear of 25, King Street, the then residence of H. Clark. Those were times when difficulties were experienced by everyone who wished to pursue medical and surgical studies, as obstacles were thrown in the way of the most necessary branch of training—namely, dissection. Much interest was taken in the lectures given by Dr. Riley, and so greatly did they become appreciated and their value recognised, that he and Hy. Clark were induced to prepare and issue a prospectus of a Medical School, to be opened at premises in Old Park. During the first twenty years of its existence no support or encouragement was accorded the School by the public or the profession; but gradually the claims of the School came to be recognised, and for many years now it has been in a prosperous condition, especially since its affiliation with the University College. Of the pupils who have passed through the School, many have attained high distinction. With its fame the number of its pupils has grown, and with the extension of researches in Medicine and Surgery more perfect appliances for teaching have been secured. During the Session 1883–84, 97 students attended the School.

Students at the School have the privilege of continuing their practical studies in Medicine and Surgery at the Infirmary and Hospital, in connection with which Institutions are valuable scholarships and prizes. The Medical School, together with the Infirmary and Hospital, provide for every detail of the professional curriculum required by the University of London, and students can complete at these Institutions the entire course of study required for the diplomas of the Royal College of Physicians of London, the Royal College of Surgeons of England, the Apothecaries' Society of London, and the Army and Navy Boards. The prizes connected with the Infirmary are Suple's Medical Prize, consisting of a gold medal, value five guineas, and about seven guineas in money; Suple's Surgical Prize, similar in character; Clarke's Prize, consisting of the interest of 500*l.*, given to the most successful student on the completion of his third year's study; Tibbits' Memorial Prize, being the interest of 315*l.*, awarded the student who shows the greatest proficiency in practical surgery; Crosby Leonard's Prize, being the interest of 300*l.*, a surgical prize; the Pathological Prizes, value three guineas each. The Scholarships and Prizes connected with the Hospital are:—The Martyn Memorial Entrance Scholarship, value 20*l.*, awarded to the most successful candidate in the competitive examination in subjects of general education; Clarke Scholarship, a surgical prize of 15*l.*; Sanders' Scholarship, being the interest of 500*l.*, offered for proficiency in Medicine, Surgery, and Diseases of Women; Lady Haberfield Prize, the interest of 1,000*l.*, also awarded for proficiency in Medicine, Surgery, and Diseases of Women. All the Scholarships and Prizes at both Institutions are given annually. The Medical School has a governing body of fifteen members, five of whom are elected by the Council of University College, one member by the Committee of the Infirmary, one by the Committee of the Hospital, three members by the Staff of the Infirmary, three by the Staff of the Hospital, and two by the Faculty of the Medical School.

UNIVERSITY COLLEGE, LIVERPOOL.

(By a Member of the Staff.)

In the old days, when almost every medical man had one or two pupils, it was no uncommon thing in the larger provincial towns for a few of the leading practitioners to collect these young gentlemen and give them short courses of lectures, preparatory to the time when they should proceed to "walk the hospitals" in London or Edinburgh. Even dissecting was carried on in a furtive and incomplete way. In 1834, just half a century ago, a few of these private lecturers in Liverpool agreed to combine their efforts, and thus was founded the Liverpool Medical School. For eleven years its work was carried on in rooms belonging to one of the larger public institutions of the town; but in 1845 the Trustees of the Royal Infirmary erected a building upon the Infirmary grounds, and the school thenceforth became the "Royal Infirmary School of Medicine." Its progress for a long time was very slow, and once, indeed, the attendance was so small that the lecturers entertained serious thoughts of entirely abandoning the enterprise. By degrees, however, it drew slowly ahead, and about fifteen years ago participated in that sort of general revival which visited nearly all the provincial schools. Doubtless this was greatly due to the change which has come over the style of medical practice in the great northern towns; the increasing size and wealth of which has enabled them to support men working at specialties. Pure physicians and surgeons, oculists, aurists, gynæcologists, and dermatologists can now make good livings, and give time for teaching also, where formerly there were none but general practitioners, so immersed in practice that teaching, as we now understand it, was an impossibility with them.

In 1871 the lecturers of the school felt the necessity of improving the building in which they laboured, and by a vigorous appeal to the public succeeded in raising between five and six thousand pounds, which was expended upon additional class rooms and upon a museum and physiological laboratory. Within the last few years the generosity of the Liverpool public has founded the University College. Possessed of a building which, for the present, answers its requirements, and with nine endowed professorships the College has before it a great future. Quite recently the School of Medicine has become allied to it as its medical faculty, while still retaining much of its powers of self-government. The next advance will be the affiliation of the College to the Victoria University, as one of the various colleges of which that body is to be the head. At present the Owens College is the only one, but Liverpool and Leeds will, without doubt, be incorporated ere long, and in due time probably others also, thus completing the great scheme of popular University Education for the North of England. The first examinations for the Victoria Degree in Medicine recently held, show that while perhaps less harassing than those of the University of London they are hardly behind them in point of strictness. The establishment of University College (fortunately in the same grounds as those of the School of Medicine) affords the students of the Medical Faculty the best possible training in

physics, in zoology, and in chemistry, for which the names of Professors Oliver Lodge, Herdman, and Campbell Brown are a fair guarantee. At the present moment a chemical department, which will ultimately cost between 10,000*l.* and 15,000*l.*, is rapidly rising.

The Royal Infirmary, founded in 1749, has through its committee extended a warm support to the school which so long took its name from it. Constructed at a period when sanitary knowledge, and indeed architecture in general was at its lowest ebb, the present building has been felt to be quite behind the times, and the public have recently subscribed 100,000*l.* to build a new one, which, it is hoped, will be soon commenced. Among the list of those who have acted as its surgeons appears the distinguished name of Park, who, next after the Moreaus, introduced the excision of joints. His celebrated case of the sailor, whose elbow-joint he excised, and who was afterwards able to follow his occupation and even to go aloft, was long quoted in surgical text-books. Alanson also was one of its surgeons, who was probably the first to practise amputation by flaps, in contradistinction to the old circular method. Among its physicians was Curric, the friend of Roscoe, and the author of an admirable "Life of Burns," and other literary productions. In the beginning of this century he advocated the use of cold affusion in fever, and drew attention to the clinical value of thermometry. Fifty years after his death his suggestions began to be put in practice.

While it is admitted that a small school possesses certain disadvantages in its inability to afford systematic training in special subjects, it has, on the other hand, certain advantages. It may be claimed for Liverpool that it affords great opportunities in the abundant material for practical Anatomy at the school, and in the extensive surgical work done in the wards of the Royal Infirmary. Abundance of dissection and an unlimited field for dressing, counterbalance the loss of much special work, which the student gains at the great crowded schools, at the expense of having to wait weeks for a part (even then sharing it with another man), and of having often to act as dresser to a very few patients only.

THE OWENS COLLEGE (VICTORIA UNIVERSITY) MEDICAL DEPARTMENT, MANCHESTER.

(By a Professor of the Medical Department.)

The prospectus for the ensuing year contains many and important changes. Additional accommodation, chiefly in the form of laboratories, for the practical study of Physiology, Pathology, and Pharmacy has been provided, the several departments have received their necessary complement of demonstrators, and are now in working order. The anatomical department is presided over by Professor Watson, assisted by two demonstrators, all three of whom devote their whole time to their duties at the College. In the physiological department, which is under the direction of Professor Gamgee, a lecturer on Histology has been appointed, in the person of Mr. Waters, who still retains the demonstratorship of Physiology. This department is also to be extended by the appointment of a second demonstrator and assistant lecturer on Physiology. In the pathological department Dr. Maguire has been appointed Assistant Lecturer and Demonstrator, under the direction of Professor Dreschfeld. The pathological laboratory is open daily, and is well equipped with all requirements for the prosecution of original work in Pathology, especially for Bacteriological Observations. Practical classes are held for Medical and Surgical Morbid Histology, the latter conducted by Mr. A. H. Young. A practical class on Pathology for medical practitioners is announced, and a special course of lectures, by Dr. Maguire, on the Pathological Anatomy of the kidneys, and the Pathology of Albuminuria. In the Materia Medica Department, Professor Leech gives two courses of lectures, one on Materia Medica, the other on Therapeutics; besides an additional course on Mineral Waters. Practical Pharmacy is taught in a special laboratory, with Mr. Elborne as Demonstrator and Assistant Lecturer. The syllabus of Forensic Medicine is now separated from that of Hygiene, and we notice the appointment of an Assistant Lecturer in Forensic Medicine, and Demonstrator of Toxicology (Mr. Beverley), who conducts a practical class under the direction of Dr. Cullingworth. Hitherto the students, as in most medical schools, have attended lectures on the Principles and Practice of Surgery in their second winter session. As there are many objections to this plan, the several surgical classes have been re-arranged, so that henceforth there will be two courses of lectures on Surgical Pathology, one in summer, for second years' students, and the other, more advanced, in winter, for third and fourth years' students, while the class on Practical Surgery has been similarly subdivided, and the lectures on Systematic Surgery are to be postponed until the third winter. Equally important changes have been made in the clinical teaching. Hitherto there has been no direct connection between the Infirmary, the recognised hospital for the clinical teaching, especially of Medicine and Surgery, and the College. The College authorities, recognising the importance of sound clinical instruction, have instituted lectureships in Clinical Medicine, Surgery, Gynæcology, Ophthalmology, and Diseases of Children, selecting for these appointments members from the Staffs of the different hospitals. The importance of this step can scarcely be exaggerated, for thereby have been ensured the utilizing of the vast clinical material of the Manchester hospitals, and a uniform and systematic plan of clinical instruction. The newly-appointed Clinical Lecturers are—for Medicine, Drs. Simpson, Morgan, Leech, Dreschfeld, Ross, and Steell; for Surgery, Messrs. Heath, Whitehead, Jones, Hardie, Southam, and Wright; for Gynæcology, Drs. Thorburn, Lloyd Roberts, and Cullingworth; for Ophthalmology, Drs. Little and Glascott; for Diseases of Children, Dr. Ashby. The duties of the lecturers are to give systematic clinical instruction, according to a definite plan; thus in Medicine and Surgery there are held demonstrations in physical examination and minor surgery respectively, elementary clinical classes, advanced clinical classes, and clinical lectures. We notice, further, special clinical classes and demonstrations in Laryngoscopy (Dr. Simpson), in Aural Surgery (Mr. Wright), in Electro Therapeutics (Dr. Dreschfeld), on Fever cases in the Monsall Hospital Dr. Steell), and on Mental Diseases (Mr. Mould) in the Cheadle Asylum.

SHEFFIELD SCHOOL OF MEDICINE.

(By a Member of the Staff.)

For more than half a century a good school for the teaching of practical medicine and surgery has existed in Sheffield. The large population of the town and district, consisting as it does mainly of a working class ready to avail itself of public charity, and engaged in pursuits provocative of disease; coupled with the unavoidable accidents necessarily arising in connection with large ironworks, collieries, and factories, render the material for the study of medicine and surgery exceptionally large and varied. In the town there are the following medical charities, viz.:—

The General Infirmary (180 beds), the Public Hospital and Dispensary (101 beds); and at these institutions the clinical teaching is mainly carried on, the practice of both being open to all the students of the School, and clinical instruction by the physicians and surgeons being given daily. In addition to the above-named there are:—The Jessop Hospital for Women (with 45 beds and a Midwifery Department), the Fever Hospital, and the Hospital for Sick Children. At the Infirmary there is a large ophthalmic department, and special facilities are afforded for studying this branch of practice. In connection with the Medical Charities there are five house surgeoncies (salaries varying from 130*l.* to 50*l.* a-year), and one clinical assistantship. Five of these posts are held by former pupils of the School. The incorporation of the Medical School with the Firth College, which has recently taken place, will without doubt mark a new era in the medical education of Sheffield, for the students here are now offered not only the best opportunities for the practical study of the profession, but also the greatest facilities for obtaining a thorough scientific training. The teaching now is so arranged as to include not only all the subjects required by the Royal College of Physicians and Surgeons, but also those of the University of London and other Examining Boards.

YORKSHIRE COLLEGE MEDICAL DEPARTMENT, LATE LEEDS SCHOOL OF MEDICINE.

(By a Member of the Staff.)

Whilst the Infirmary Staff has during the last year been very much increased numerically, the School of Medicine has undergone a complete revolution by its incorporation with the Yorkshire College. Since its foundation 54 years ago the school has been a private venture, and has sought no help from the public. It has nevertheless done a very good work; for besides preparing a large number of students for their diplomas, it has enrolled on its charter many who have held, and others who are still holding, leading positions in the medical world. This is not to be wondered at when one recollects that the names of Hey, Teale, Nunneley, Wheelhouse, Clifford Allbutt and others, who would have added lustre to any institution, have formed part of the teaching staff. Instruction in Chemistry, Botany and Comparative Anatomy, was transferred to the professors of the Yorkshire College immediately it was founded ten years ago; but it has since been felt that the welfare both of the School and College would be enhanced if the two institutions were completely incorporated. This has only just been effected, and the coming October will witness the recognition of the School of Medicine as a public Institution, and a department of one of the chief scientific and educational establishments in the country. It is expected that the Yorkshire College will almost immediately be affiliated with the Victoria University, when the Leeds medical students will be able to obtain its degrees in their ordinary curriculum. The subject of Physiology will in future be taught by a professor who will devote the whole of his time to the work of his chair. In the Anatomy course there will be a professor and a paid demonstrator, whose whole time will be given up to the students. The other courses will be given as usual. In the summer, courses of lectures on Ophthalmic Surgery and Hygiene, and a practical course of Operative Surgery will be given, which subjects are additions to the prospectus. The Anatomical and Pathological Museums contain carefully prepared anatomical sections and other specimens of human and comparative anatomy, and a large number of pathological preparations, some of which are very rare and valuable. There are also Materia Medica, Botanical and Dental Museums. The valuable collection of comparative anatomy specimens, when studied along with the geological specimens in the museum of the Philosophical Society, "also open to students," gives every opportunity for the study of this branch of biology. The dissecting rooms and physiological laboratories have been much improved and extended in response to the increased number of students, whose numbers have been almost doubled during the last decade. The library, which contains about 10,000 volumes, is well supplied with standard works on medicine and surgery and allied subjects, and with the leading medical periodicals; it is open to all students of the School, who have the advantage also of using the books belonging to the Leeds and West Riding Medico-Chirurgical Society. Special attention is given to the preparation of students for the higher examinations, the professors of physiology, biology, and chemistry holding classes appropriate to that end. Several valuable prizes are given annually. A House Physician and a House Surgeon are elected from time to time. There are also five Resident Assistant Medical Officers in the Infirmary who continue in office one year. They are chosen from the Senior Students of the School, and are provided with apartments and board in the Infirmary free of charge. They must possess at least one legal qualification.

There are three Resident Medical Officers appointed from time to time at the public dispensary, a stipend with residence being given; for these appointments Leeds Students are frequently chosen.

The Leeds General Infirmary which is close to the School, and in its teaching intimately associated with it, has beds for 320 in-patients; 3,754 having occupied them during the last year. In the out-patient department 20,071 were treated. These numbers show a remarkable increase if compared with the statistics of ten years ago, when 11,551 out-patients were prescribed for. The increase of work in the in-patient department lies chiefly in the fact of the great development of active surgical work; an idea of the extent of which, may be gathered from the fact of 612 major operations and 439 ophthalmic operations having been done in the past twelve months. The "ether record" shows that anæsthetics have been administered 2,000 times in the same period. In consequence of this increase, last year two Honorary Assistant Surgeons were appointed and this year two Honorary Assistant Physicians, who have charge of out-patients. In the General Infirmary are comprised Medical, Surgical, Ophthalmic, Aural and Electrical departments, in each of which special instruction is imparted to students. Clinical teaching goes on daily by the Honorary Physicians and Surgeons, and by the Assistant Physicians and Surgeons in the wards and out-patient rooms. Clinical lectures are also given regularly in the winter and summer sessions. Major operations are performed every Thursday, but minor operations are done daily after the ward visits of the Surgeons. Every Wednesday morning consultations are held in the operating theatre on interesting and important surgical cases, students being permitted and encouraged to attend. A new departure has just been made in the case of Dr. Clifford Allbutt, Mr. Wheelhouse, and Mr. T. Pridgin Teale, who, having served twenty years on the staff, have been appointed Consulting Physicians and Surgeons respectively, with the right of retaining a certain number of beds for special and interesting cases. The Leeds Public Dispensary, the Fever Hospital, and the West Riding Lunatic Asylum, are other medical institutions which are made use of by the Leeds Medical Students.

The session will be opened on October 1st, by Dr. Michael Foster, F.R.S., Professor of Physiology in the University of Cambridge.

MEDICAL EDUCATION IN SCOTLAND.

INTRODUCTORY ARTICLE.

(By our Edinburgh Correspondent.)

THERE are in Scotland seven *examining bodies* which grant licences to practise medicine, viz., the Universities of Edinburgh, Aberdeen, Glasgow and St. Andrews, the Royal College of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. An abstract of the regulations and requirements of these bodies will be found in the synoptical tables (pp. 379–380). The two Edinburgh Colleges has recently adopted a conjoint scheme, and will not, as a rule, in future give separate diplomas.

The centres of *medical education* in Scotland are the Universities of Edinburgh, Glasgow, and Aberdeen. Each of these institutions possesses a complete Medical Faculty, attendance on the classes of which, besides qualifying for their respective degrees, qualifies for the examining boards in any of the kingdoms. Each city, moreover, possesses a hospital or hospitals where the necessary clinical and practical instruction can be obtained.

Besides these University Schools, there exist, moreover, in Edinburgh and Glasgow what are known as Extra-mural or Extra-academical Schools of Medicine. In Edinburgh, this school comprises a body of over forty lecturers, whose courses qualify for the examining boards and to a certain extent are recognised by the University as qualifying for their degrees. In Glasgow, the Extra-academical School embraces the Medical Faculty of Anderson's College, and the more recently formed School of Medicine attached to the Royal Infirmary. In Aberdeen no such school exists, all the medical teaching being done under the auspices of the University.

The existence side by side with the University Faculty of an Extra-academical School of Medicine is a matter of the highest importance in relation to the general question of medical education in Scotland. It does not admit of doubt that this co-existence accounts in great measure for the attraction which Edinburgh, during recent years, has offered to students from all parts of the world. Here, the Extra-mural School has existed in a state of high efficiency for many years, and a form of rivalry has existed between it and the University which has been fraught with the greatest benefit to the teaching of Medicine. The possible extent and effect of this competition will be seen when it is stated that a student, besides obtaining at the Extra-mural School all the classes necessary for the boards of Edinburgh, London, and Dublin, may also take out a maximum of four classes, attendance on which will count in the same way as the corresponding classes in the University would do for the University degree. How this tells on efficiency can be readily understood. It is within the nature of things that the occupant of a university chair should now and then prove either unable or unwilling to fulfil its duties in a satisfactory manner. Without the assistance of the Extra-mural School, the teaching of the subject represented by the chair would suffer seriously. No sooner, however, does such a contingency arise, than the student turns to the lecturers outside the academic walls, and among them he never fails to find one at least able and willing to supply all reasonable demands. And not only does the healthy competition of this school provide efficient substitutes for inefficient university professors, and so maintain the standard of medical education, but the mere fact that the number of his students depends in some degree at any rate on his efficiency, serves as a healthy stimulus to the lagging professor, too intent on his *otium cum dignitate*. At no period has the Edinburgh Extra-mural School been in a more healthy and vigorous state than it is at present. On each of the chief branches of medical study there are several lecturers, so that there is abundance of opportunity for selection, while all the special departments, such as the eye, ear, skin, &c., are more or less fully represented. No one can doubt that the high standard of efficiency which the Edinburgh School as a whole has attained, has proved the main attraction to students during the past decade. What are the limits to this efficiency, and what are the weak points in the system of medical education, we shall endeavour to show by-and-by.

In Glasgow, the competitive influence of the extra-mural system is of more recent origin than in Edinburgh. It is beginning to have its effect, and its development ought to obtain every encouragement from the University. No policy could be more shortsighted and suicidal than any endeavour on the part of the University authorities to curb the growth of its less favoured rival. In addition to the healthy stimulus which such legitimate competition brings to bear on the holders of chairs, it cannot fail to develop a many-sidedness in the teaching of Medicine which is apt to be missed under the narrower auspices of a University acting alone. In such a city as Glasgow, with its wealth of material in its hospital and dispensary practice, the rapid development of its medical school is a matter of certainty provided its growth is not stunted by narrowness and jealousy.

In Aberdeen, the absence of the competitive influence is not as yet seriously felt. This is due to the fact that its numbers are comparatively small, and the field for extra-mural teaching is limited. Moreover, provided as the Medical Faculty is with a body of professors, whose efficiency and energy as teachers and workers will challenge comparison with any school in the United Kingdom, this University is producing work of the highest order. That this is due in great measure to the fact that the limited number of students permits an amount of individual teaching which is impossible elsewhere is undoubtedly true, and this consideration should not fail to point a moral.

There is no doubt that in Scotland the question of medical education is approaching a crisis, when many time-honoured methods will be put on their trial.

In Scotland, as in England, the chief mode of teaching is by means of systematic lectures. Courses of 50 or 100 lectures are the rule in all the subjects, and the chief duty of the teacher is the daily delivery of these discourses. No doubt during recent years the development of teaching by demonstration, and by other practical methods, has been receiving more attention than formerly, but its importance is far from being adequately recognised in the Scottish system. To fully appreciate the time-wasting absurdity of that relic of barbarism, the systematic lecture, in so far as many of the branches of medical education are concerned, one has but to visit some of the larger classes in the Medical Faculty of Edinburgh University. What could be more grotesque, were it not so serious in its consequences, than to see a Professor of Anatomy addressing a class of 500 or 600 students, describing with painful minuteness each carpal bone, pointing to each facet, demonstrating all its relations, and employing language in his description, the counterpart of which is to be found in "Quain" or "Gray"? That a class of such dimensions should maintain a respectful silence during such an operation says much for human forbearance. What benefit can follow such a performance passes comprehension. No doubt there are some subjects which may be conveniently handled in a systematic lecture, but they are comparatively few. It cannot be claimed for the method that it is a more vivid way of imparting knowledge. As matters now stand, the lectures have in most cases developed into mere dictation exercises, which the student leaves exhausted in mind and body with the effort of reducing the discourse to verbatim notes. If the lecturer feels that no existing text-book adequately represents his views on the subject he professes, let him by all means put his lectures into print, but why should he demand that 100 hours per session should be wasted by every student in committing them to writing, when the printing press once for all could do it in an incomparably better fashion? Would not the time thus spent be better employed at the dissecting table, the microscope, or the bedside?

It is generally admitted that the present efficiency of medical education in Scotland is due to the manner in which year by year the Universities have raised the standard for their degrees. To Edinburgh especially does the credit of this belong. But she, no less than the other schools, must take care that her teaching machinery

is kept in proper repair, thoroughly watched and rendered more effective as experience and circumstances demand.

The weak point all along has been the want of a due appreciation of the importance of practical teaching. That honest efforts at improvement in this direction have been recently made we gladly admit, but that they still fall far short of what the case demands no one can honestly deny. So long as there continues the outrageous waste of time which persistence in the indiscriminate use of the formal lecture system involves, together with the entire disproportion between the teaching strength and the multitude to be taught, the retention of the high standard of qualification can only be effected at the cost of "cram" and over-pressure. If Edinburgh is to hold its own as a great training school with its 1,700 students of Medicine, it must demand without delay an entire re-organisation of its modes of teaching, a liberal increase of its teaching power, and the most careful development and fostering of its means and material for practical training. Equipped as it now is with superb laboratories and a magnificent hospital, the maintenance of its present unique position depends on the wisdom and liberality of its teachers, and there is no reason why it should not continue to produce results worthy of its great history. That it is a great school at present we all admit, that it might make more of its opportunities we do not doubt.

And with Glasgow the case is similar. With the immense wealth of clinical material which its teeming population must provide, it might readily become, in the hands of able and energetic teachers, a practical school worthy to rival the great centres of Berlin and Vienna. But to effect this, all narrowness and jealousy must be laid aside, and a healthy competition encouraged between the academical and extra-academical schools. With Aberdeen the case is somewhat different. The limits of its hospital prevent its becoming a great clinical school in the sense in which it is possible to Edinburgh or Glasgow, yet its present efficiency might be widely extended in all directions under wise guidance. Nor is its growth as a scientific school necessarily limited by any such consideration.

There has been evidence of late that those concerned in the question of medical education in Scotland are turning their attention to its honest reform. If the Scottish schools are to retain the honourable position which their past achievements in teaching and discovery have given them, this question of teaching reform must be faced with courage, circumspection, and without loss of time. Effete methods which have served their day must be boldly discarded, and those which experience has proved to be more in harmony with the modern spirit must be established. Under such conditions it is not presumption to look for a future worthy of the great past.

UNIVERSITY OF EDINBURGH.—FACULTY OF MEDICINE.

Session. 1884–5.

Winter Session.

The session will be opened on Tuesday, October 28, 1884.

**Anatomy*—Professor Turner.
**Anatomical Demonstrations*—Professor Turner.
**Chemistry*—Professor Crum Brown.
Clinical Medicine—Professors Maclagan, Grainger Stewart, T. R. Fraser, and Greenfield (Professor Simpson on *Diseases of Women*).
Clinical Surgery—Professor Annandale.
**General Pathology*—Professor Greenfield.
**Institutes of Medicine or Physiology*—Professor Rutherford.
**Materia Medica*—Professor T. R. Fraser.
**Midwifery and Diseases of Women and Children*—Professor Simpson.
Practical Natural History—Professor Ewart.
**Practice of Physic.*—Professor Grainger Stewart.
**Surgery*—Professor Chiene.

Winter and Summer Session.

**Anatomical Demonstrations*—Professor Turner,
**Bandaging and Surgical Appliances*—Professor Chiene.
**Operative Surgery*—Professor Chiene.
**Obstetrical and Gynæcological Operations*—Professor Simpson.
**Practical Physiology, including Histology, Chemical Physiology, and Experimental Physiology*—Professor Rutherford.
**Practical Anatomy*—Professor Turner.
**Practical Chemistry*—Professor Crum Brown.

* In University New Buildings.

Summer Session.

Practical Instruction in Mental Diseases at an Asylum—Dr. Clouston, Lecturer.
Practical Natural History—Professor Ewart.
Practical Morbid Anatomy and Pathology—Professor Greenfield.
Practical Materia Medica (including Pharmacy)—Professor T. R. Fraser.
Practical Botany—Professor Dickson.
Vegetable Histology—Professor Dickson.
Tutorial Classes of Clinical Medicine and Clinical Surgery in the Wards of the Royal Infirmary by the Clinical Tutors, Dr. James Murdoch Brown, and Dr. James Bennet.

During the Summer Session lectures will be given on the following subjects :—

Anatomical Demonstrations—Professor Turner.
Botany—Professor Dickson.
Chemistry—Professor Crum Brown.
Clinical Medicine—Professors Maclagan, Grainger Stewart, T. R. Fraser, and Greenfield. (Professor Simpson on *Diseases of Women*).
Clinical Surgery—Professor C. Annandale.
Mental Diseases, with Practical Instruction at the Morningside Asylum—Dr. Clouston, Lecturer.
Medical Jurisprudence—Professor Maclagan.
Natural History—Professor Ewart.
Obstetrical and Gynæcological Operations—Professor Simpson.
Diseases of the Eye—Dr. Argyll Robertson, M.D.

Information relative to matriculation and the curricula of study for degrees, examinations, &c., will be found in the University Calendar, and may be obtained on application to the Secretary at the College.

During the session the following means are afforded for practical instruction :—

The *Dissecting Rooms* are open daily, under the superintendence of the Professor, assisted by Arthur Thomson, M.B., David Hepburn, M.B., C.M., and other assistants. The *Royal Edinburgh Asylum* is open in summer to members of the class of Medical Psychology exclusively for practical investigation in Mental Diseases, by the Physician-Superintendent, Dr. Clouston. *Chemical Laboratories.*—The laboratory for instruction in Analytical Chemistry and for chemical instruction, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc., John Gibson, Ph.D., and Leonard Dobbin, Ph.D., is open from 10 to 4. The laboratory for instruction in Practical Chemistry, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc. The *Physiological Laboratory* is open daily for physiological investigation, under the superintendence of the Professor, assisted by John Lockhart Gibson, M.B., C.M., and G. F. Alexander, M.B., C.M. The *Physical Laboratory* is open daily from 10 to 3, under the superintendence of Professor Tait. The *Medical Jurisprudence Laboratory* is also open daily during the Summer Session from 10 to 3, under the superintendence of the Professor, assisted by James Allan Gray, M.D. The practice of Obstetrical and Gynæcological Operations is carried out in the Obstetrical Museum, under the superintendence of the Professor, assisted by A. H. F. Barbour, M.A., M.D. The *Natural History Laboratory* is open daily, under the superintendence of Professor Ewart, assisted by J. Duncan Matthews, and C. Prince. The *Natural History Museum*, in the Museum of Science and Art, Chambers Street, is accessible to the students attending the Natural History class. The *Royal Botanic Garden, Herbarium*, and *Museum* are open daily during summer.

There are numerous fellowships, scholarships, bursaries and prizes open to graduates and undergraduates of the University, and others, particulars of which will be found in the University Calendar.

Minimum Cost of attending the Medical Classes, with the Order of Study.—Whilst there is no authorised order of study, the usual course is given below :—Preliminary Examination in Arts to be taken in the month of March or October, before entering medical classes. By order of the General Medical Council, all medical students require to be registered as such within fifteen days after the commencement of the session. Students are recommended to commence their medical studies by attending the summer session.

First Summer Session.—Preliminary examination fee, 10*s.*; matriculation fee, 10*s.*: Botany (garden fee, 5*s.*), 4*l.* 4*s.*; Natural History, 4*l.* 4*s.*; total, 9*l.* 8*s.*

First Winter Session.—Matriculation (for whole year), 1*l.*; Anatomy, 4*l.* 4*s.*; Practical Anatomy, 3*l.* 3*s.*; Chemis-

try, 4*l.* 4*s.*; hospital, 6*l.* 6*s.* (perpetual ticket, 12*l.*); total, 18*l.* 17*s.*

Second Summer Session.—Botany or Natural History, if not attended previously; Practical Chemistry, 3*l.* 3*s.*; examination in Botany, Natural History, and Chemistry, in October following, 5*l.* 5*s.*; total, 8*l.* 8*s.*

Second Winter Session.—Matriculation, 1*l.*: Institutes of Medicine, 4*l.* 4*s.*; Surgery, 4*l.* 4*s*,; hospital, 6*l.* 6*s.*; examination in Botany, Natural History, and Chemistry, in April, if not previously passed; total, 15*l.* 14*s.*

Third Summer Session.—Practical Pharmacy, 3*l.* 3*s.*; hospital; total, 3*l.* 3*s.*

Third Winter Session.—Matriculation, 1*l.*; Materia Medica, 4*l.* 4*s.*; Pathology, 4*l.* 4*s.*; Clinical Surgery, 4*l.* 4*s.*; hospital; examination in Anatomy, Physiology, Materia Medica, Pathology, in April or July, 5*l.* 5*s.*; total, 18*l.* 17*s.*

Fourth Summer Session.—Medical Jurisprudence, 4*l.* 4*s.*; outdoor dispensary, 2*l.* 2*s.*; hospital and clinical lectures; total, 6*l.* 6*s.*

Fourth Winter Session.—Matriculation, 1*l.*; Practice of Medicine, 4*l.* 4*s.*; Midwifery, 4*l.* 4*s.*; Practical Midwifery, 1*l.* 1*s.*; Clinical Medicine, 4*l.* 4*s.*; Vaccination, 1*l.* 1*s.*; outdoor dispensary, 1*l.* 1*s.*; hospital; total, 16*l.* 15*s.*

Fifth Summer Session.—Hospital; final examination for M.B. and C.M., 10*l.* 10*s.*; total minimum expenses for M.B. and C.M., 107*l.* 18*s.* (This total is irrespective of any additional classes which may voluntarily be attended.

Only one course of instruction on each subject is here stated, that being the minimum.

Fees for Degrees.—Examination in Botany, Chemistry, Chemical Testing, and Natural History, 5*l.* 5*s.*; examination in Anatomy, Institutes of Medicine, Materia Medica, Pathology, 5*l.* 5*s.*; final examination in Surgery, Midwifery, Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and prescriptions, during last Summer Session, 10*l.* 10*s.*; registration fee, 1*l.*; total fees for M.B. diploma, 22*l.* Additional fee for M.D. diploma, 5*l.* 5*s.*; Government stamp duty (for M.D. only), 10*l.*

Note.—Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, 25*l.*; registration, 1*l.*

N.B.—The above fees include all charges for the diplomas.

Further information as to the classes, courses of lectures, &c., may be obtained on application to Thomas R. Fraser, M.D., Dean of the Faculty of Medicine; or from the University Calendar, published by James Thin, Edinburgh.

SCHOOL OF MEDICINE, EDINBURGH.

The Practical Anatomy Rooms and Chemical Laboratories will be opened on October 1st. The courses of lectures will be commenced—Winter Session, October 28th; Summer Session, May 1st.

Winter Session.

Anatomy: Practical Anatomy — Mr. J. Symington and Mr. Macdonald Brown.
Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Ivison Macadam.
Practice of Physic—Dr. John Wyllie, Dr. J. O Affleck, and Dr. Byrom Bramwell.
General Pathology—Dr. Alexander Bruce.
Surgery—Mr. Duncan, Mr. A. G. Miller, Dr. C. W. MacGillivray, and Mr. C. W. Cathcart.
Midwifery and Diseases of Women and Children—Dr. Charles Bell and Dr. Peter Young.
Clinical Medicine (Royal Infirmary)—Drs. Claud Muirhead, Brakenridge, and Wyllie, Dr. Angus Macdonald (*Diseases of Women*).
Clinical Surgery (Royal Infirmary)—Mr. Joseph Bell.
Institutes of Medicine and Practical Physiology—Dr. James and Mr. James Hunter.
Medical Jurisprudence and Public Health—Dr. Littlejohn.
Materia Medica and Therapeutics—Dr. William Craig.
Diseases of the Ear—Dr. Kirk Duncanson.
Diseases of the Eye—Dr. John Robertson.
Vaccination (Royal Dispensary)—Dr. Husband.
Diseases of Children—Dr. James Andrew and Dr. Jas. Carmichael.
Practical Midwifery—Dr. Angus Macdonald and Dr. Charles Bell.
Practical Midwifery and Clinical Gynæcology—Dr. Peter Young.
Practical Gynæcology—Dr. Halliday Croom and Dr. David Berry Hart.

Summer Session.

Practical Anatomy—Mr. J. Symington and Mr. Macdonald Brown.
Practical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, and Dr. Drinkwater.
Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig, and Dr. G. A. Gibson.
Midwifery and Diseases of Women and Children—Dr. Angus Macdonald, Dr. Halliday Croom, Dr. Charles Bell, and Dr. David Berry Hart.
Medical Jurisprudence and Public Health—Dr. Littlejohn.
Practical Physiology—Mr. James Hunter.
Practical Pathology—Dr. Alex. Bruce.
Natural History, Zoology, and Comparative Anatomy—Dr. Andrew Wilson.
Clinical Medicine (Royal Infirmary)—Drs. Claud Muirhead, Brakenridge, and Wyllie, Dr. Angus Macdonald (*Diseases of Women*).
Clinical Surgery (Royal Infirmary)—Mr. Joseph Bell.
Practical Medicine and Diagnosis—Dr. Byrom Bramwell.
Diseases of the Eye—Dr. J. Robertson and Mr. George Berry.
Diseases of the Ear—Dr. Kirk Duncanson and Dr. P. McBride.
Vaccination—Dr. Husband.
Diseases of Children—Dr. James Andrew and Dr. Jas. Carmichael.
Insanity—Dr. J. Batty Tuke.
Diseases of the Skin—Dr. Allen Jamieson.
Practical Surgery—Mr. Duncan.
Operative Surgery and Surgical Anatomy—Mr. A. G. Miller, Dr. C. W. MacGillivray, and Mr. C. W. Cathcart.
Practical Midwifery—Dr. Charles Bell.
Clinical Midwifery—Dr. Halliday Croom.
Practical Midwifery and Clinical Gynæcology—Dr, Peter Young and Dr. Charles Bell.

The lectures qualify for the University of Edinburgh and the other Universities; the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin; and the other medical and public Boards.

Fees—For a first course of lectures, 3*l.* 5*s.*; for a second, 2*l.* 4*s.*; perpetual, 5*l.* 5*s.* To those who have already attended a first course in Edinburgh the perpetual fee is 2*l.* 4*s.* Practical Anatomy (six months' course), 3*l.* 3*s.*; course of demonstrations, 2*l.* 2*s.*; perpetual, 4*l.* 4*s.* Practical Anatomy, with course of demonstrations, 4*l.* 4*s.* Practical Chemistry, 3*l.* 3*s.*; Analytical Chemistry, 2*l.* a month, 5*l.* for three months, or 10*l.* for six months. Practical Materia Medica (including Practical Pharmacy), Diseases of the Ear, Diseases of the Skin, and Diseases of Children, each 2*l.* 2*s.* Vaccination, 1*l.* 1*s.* For summer courses of Clinical Surgery and Clinical Medicine, each 2*l.* 4*s.*; Practical Anatomy (including anatomical demonstrations), Operative Surgery, and Practical Medicine and Medical Diagnosis, each 2*l.* 2*s.*; Insanity, 1*l.* 1s.

The minimum cost of the education in this School of Medicine for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the joint examination, is 95*l.*, which is payable by yearly instalments during the period of study.

UNIVERSITY OF GLASGOW—FACULTY OF MEDICINE.

Lectures and Classes.—Winter Session.

Anatomy, Junior; Anatomy, Senior; Practical Anatomy—Professor Cleland and Demonstrators.
Chemistry, Chemical Laboratory—Professor Ferguson.
Clinical Medicine—Professor McCall Anderson, and Professor Gairdner.
Clinical Surgery — Professor George Buchanan, and Professor Macleod.
Materia Medica—Professor Charteris.
Midwifery—Professor Leishman.
Pathology—The Pathologists of the Infirmaries.
Physiology—Physiological Laboratory: Professor McKendrick.
Practice of Physic—Professor Gairdner.
Surgery—Professor Macleod.
Zoology—Professor Young.

Summer Session.

Botany, Botanical Demonstrations—Professor Bayley Balfour.
Clinical Medicine—Professor McCall Anderson, and Professor Gairdner.
Clinical Surgery—Professor Buchanan and Professor Macleod.
Embryology, and Demonstrations on Anatomy, Elementary Anatomy, Practical Anatomy—Professor Cleland and Demonstrators.
Forensic Medicine—Professor Simpson.
Lectures on the Eye—Dr. T. Reid.
Operative Surgery—Professor Macleod.
Practice of Medicine—Professor Gairdner.
Practical Chemistry, Organic Chemistry, Chemical Laboratory—Professor Ferguson.
Practical Materia Medica—Professor Charteris.
Practical Physiology—Professor McKendrick.
Zoology and Zoological Laboratory—Professor Young.
Diseases of Women—Professor Leishman.
Insanity—Dr. Yellowlees.

Class Fees.—Fee for each course, 3*l.* 3*s.*, except lectures on the Eye, 1*l.* 1*s.*; lectures on Insanity 2*l.* 2*s.*

In addition to the University courses, the Hospitals and Dispensaries afford ample means for practical instruction in the various departments of Medicine and Surgery.

Glasgow Western Infirmary.—This Hospital contains 400 beds for medical and surgical patients, with wards for skin diseases and for diseases of women.

Fees.—The fees for admission to the practice of the Infirmary are:—First year, 10*l.* 10*s.*; second year, 10*l.* 10*s.*; afterwards free. The fees for clinical lectures are included in the foregoing.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.[1]

Lectures are delivered on the subjects necessary for qualifying, and extra courses are given on practical subjects now required by examining boards. During summer, lectures on Insanity will be given by Dr. A. Robertson, Physician-Superintendent of the City Parochial Asylum.

Lectures.

Anatomy—Mr. H. F. Clark.
Chemistry—Mr. John Clark, Ph.D.
Clinical Medicine and Clinical Surgery—The Physicians and Surgeons of the Hospital.
Dental Surgery—Dr. J. C. Woodburn.
Diseases of the Ear—Dr. Macfie.
Diseases of the Eye—Mr. H. E. Clark.
Forensic Medicine—Mr. Glaister.
Materia Medica—Dr. John Dougall.
Medicine—Dr. J. W. Anderson.
Mental Diseases—Dr. A. Robertson.
Midwifery—Dr. J. Stirton.
Pathology—Dr. D. Newman.
Physiology—Dr. Barlow.
Practical Physiology and Op. Surgery—Dr. Barlow and Dr. Macewen.
Surgery—Dr. W. Macewen.

The Royal Infirmary contains 532 beds. Of these 214 are for medical, and 318 for surgical cases, with special wards for the treatment of venereal disease in males and diseases of women. Diseases of the ear and throat and skin are specially treated at the out-door department.

Appointments.—There are five physicians' and five surgeons' assistants, who are boarded and lodged in the Hospital free of charge, and who perform all the duties of house-physicians and house-surgeons. These appointments are held for twelve months—six in the medical, and six in the surgical wards—and are open to those students of the Infirmary who have completed their curriculum and passed all their examinations except the last, or who have a qualification in Medicine or Surgery, the latter being preferred. Clinical clerks, dressers, and dispensary clerks are selected from the students without any additional fee; and from the large number of accident cases, and cases of acute disease received into the wards, these appointments are numerous and invaluable to the student. Attendance at the dispensary for the treatment of out-patients, and admission to the Pathological Museum, also free.

Fees.—For each course of lectures, first session, 2*l.* 2*s.*; second ditto, and perpetuali 1*l.* 1*s.* The Anatomy Class fees are—first session, 4*l.* 4*s.*; second ditto, 4*l.* 4*s.*; afterwards 1*l.* 11*s.* 6*d.* per annum for Practical Anatomy; Practical and Systematic Pathology, 3*l.* 3*s.*

Hospital Fee.—The fee for perpetual attendance on the practice of the Infirmary and on the courses of clinical instruction and lectures is 21*l.*; six months, 6*l.* 6*s.*; three months, 4*l.* 4*s.* Prospectus can be obtained from Dr. Thomas, the Superintendent of the Hospital.

ANDERSON'S COLLEGE, GLASGOW.—FACULTY OF MEDICINE.

The Winter Session begins on Tuesday, October 28th, 1884, and closes on Tuesday, 31st March, 1885; and the Summer Session begins on the first Tuesday of May, and closes about the middle of July.

Winter Session.

Chemistry—Professor Dittmar.
Surgery—Professor Dunlop.
Junior Anatomy, Senior Anatomy, Practical Anatomy—Professor A. M. Buchanan and Demonstrator.
Institutes of Medicine (Physiology) and Practical Physiology—Professor Christie.
Materia Medica—Professor Morton.
Practice of Medicine—Professor Gemmell.
Ophthalmic Medicine and Surgery and Clinical Instruction at Ophthalmic Institution—Dr. J. R. Wolfe.
Dental Mechanics and Metallurgy—Mr. W. S. Woodburn, L.D.S.

Summer Session.

Operative Surgery—Professor Dunlop.
Surgical Anatomy, Dissection, Osteology—Professor A. M. Buchanan and Demonstrator.
Midwifery—Professor A. Wallace.
Ophthalmic Medicine and Surgery and Clinical Instruction at Ophthalmic Institution—Dr. J. R. Wolfe.
Aural Surgery—Dr. Thomas Barr.
Dental Anatomy—Dr. David Taylor, L.D.S.
Dental Surgery—Mr. J. R. Brownlie, L.D.S.
Medical Jurisprudence—Professor Alex. Lindsay.
Public Health—Dr. James Christie.
Practical Medical Chemistry—Professor Dittmar.
Botany—Professor Wilson.

Class Fees.—For each of the above courses of lectures (Anatomy excepted), first session, 2*l.* 2*s.*; second session, 1*l.* 1*s.*; afterwards free. *Anatomy Class Fees.*—First session (including Practical Anatomy), 4*l.* 4*s.*; second session (including Practical Anatomy), 4*l.* 4*s.*; third session, and perpetual, 1*l.* 1*s.*; summer fee (including Practical Anatomy), 1*l.* 11*s.* 6*d.*; Practical Anatomy only, 1*l.* 1*s.*; Osteology, 1*l.* 1*s.* Students who have attended classes at other schools, but who desire to pursue their studies at Anderson's College, will be admitted to such classes as they may have attended elsewhere at the reduced fees. Vaccination fee, 1*l.* 1*s.* *Clinical Instruction* may be obtained at the Royal Infirmary (*v.* above); also at the Ophthalmic Institution; students of Anderson's College being admitted to the practice of this Institution on paying a matriculation fee of 5*s.*

The fees for all the lectures and hospital practice required of candidates for the Diplomas of Physician and Surgeon amount to 48*l.* This is not payable in one sum, but students simply pay the fees for their classes as they take them out.

UNIVERSITY OF ST. ANDREWS.

There is no proper Faculty of Medicine in this University, but it is possible for the student to make an *annus medicus* by attendance on certain of the courses—as *Natural History*, Professor McIntosh, M.D.; *Chemistry*, Professor Heddle, M.D.; and *Anatomy and Medicine*, Professor Pettigrew, M.D.

UNIVERSITY OF ABERDEEN.—FACULTY OF MEDICINE.

Lectures.—Winter Session.

The Winter Session commences on Wednesday, October 22nd, and the Summer Session on Monday, April 27th.

Anatomy—Professor Struthers.
Practical Anatomy and Demonstrations—Professor Struthers and Assistant.
Chemistry—Professor Brazier.
Institutes of Medicine—Professor Stirling.
Surgery—Professor Alex. Ogston.
Practice of Medicine—Professor Smith-Shand.
Midwifery and Diseases of Women and Children—Professor Stephenson.
Medical Logic and Medical Jurisprudence—Professor Matthew Hay.
Materia Medica—Professor A. D. Davidson.
Pathological Anatomy—Professor D. J. Hamilton.
Practical Pathological Anatomy—Professor D. J. Hamilton.
Natural History—Professor Alleyne Nicholson.

Lectures.—Summer Session.

Botany—Professor Jas. W. H. Trail.
Practical Botany—Professor Trail.
Practical Anatomy and Demonstrations—Professor Struthers and Assistant.
Practical Chemistry—Professor Brazier and Assistant.
Natural History—Professor Alleyne Nicholson.
Practical Natural History—Professor Alleyne Nicholson.
Practical Physiology—Professor Stirling.
Practical Pathological Anatomy—Professor D. J. Hamilton.
Operative Surgery—Professor Alex. Ogston.
Practical Pharmacy—Professor A. D. Davidson and Assistant.
Practical Midwifery and Gynæcology and Clinical Diseases of Children—Professor Stephenson.
Practical Medical Jurisprudence and Hygiene—Prof. Mathew Hay.

[1] No Return.

The Anatomical Course in Summer includes instruction in Histology and in the use of the Microscope; and instruction in Osteology for beginners.

The following additional Courses of Practical Instruction are delivered in the University, or at the Institutions mentioned: *Practical Ophthalmology*—Prof. A. D. Davidson. *Dental Surgery*—Dr. Williamson. *Insanity*—Dr. Reid, Royal Lunatic Asylum. *Public Health*—Dr. Simpson. *Diseases of the Ear and Larynx*—Dr. McKenzie Booth, Dispensary. *Diseases of the Skin*—Dr. Garden, Royal Infirmary and Sick Children's Hospital.

The Aberdeen Royal Infirmary contains about 200 beds, and is visited by the members of the staff daily, at noon. Perpetual Fee to Hospital Practice, 6*l.*; or, first year, 3*l.* 10*s.*; second year, 3*l.* *Clinical Medicine*—Drs. Smith-Shand, Beveridge, and A. Fraser, 3*l.* 3*s.* *Clinical Surgery*—Drs. A. Ogston, Will, and Garden, 3*l.* 3*s.* *Pathological Demonstrations*—Dr. Rodger.

Sick Children's Hospital. Daily at 11 a.m.

General Dispensary, and *Lying-in and Vaccine Institution.* Daily, 10 a.m.

Eye Institution. Daily, 2.30 p.m.

Royal Lunatic Asylum. Physicians—Drs. Jamieson and Reid.

The Regulations relative to the Registration of Students of Medicine, and the Granting of Degrees in Medicine and Surgery, may be had of Professor Brazier, Dean of the Faculty of Medicine.

MEDICAL EDUCATION AND EXAMINATIONS IN IRELAND.

INTRODUCTORY ARTICLE.

(By our Dubliu Correspondent.)

In Ireland there are five Licensing Bodies, namely:—(1) The University of Dublin. (2) The King and Queen's College of Physicians. (3) The Royal College of Surgeons. (4) The Royal University. (5) The Apothecaries' Hall of Ireland.

I.—The University of Dublin, founded by Queen Elizabeth in the year 1591, is the most ancient of the educational institutions in Ireland. On the 3rd of March in the year named, a College was incorporated by Charter, or Letters Patent, as "the mother of an university," under the style and title of "The College of the Holy and Undivided Trinity, near Dublin, founded by Queen Elizabeth." Since that date, several Royal Charters have been granted by succeeding Sovereigns, extending the privileges of the University, and making such alterations in the statutes and constitution of Trinity College as were from time to time deemed necessary. The Degrees in Medicine, Surgery, and Midwifery granted by the University are as follows:—(1) Bachelor of Medicine; (2) Doctor of Medicine; (3) Bachelor in Surgery; (4) Master in Surgery; (5) Master in Obstetric Science. The last-named Degree (M.A.O., or "Magister Artis Obstetriciæ,") was instituted in June, 1876, when also a Licence in Obstetric Science was established. A candidate for the Degree of Bachelor of Medicine *must be a Graduate in Arts*, but may obtain the Degree of Bachelor of Medicine at the same Commencements as those at which he receives his Degree of B.A., provided the requisite medical curriculum shall have been completed, and the requisite Examinations passed. A Bachelor in Surgery must also be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must further have passed the M.B. Examination before presenting himself at that for the B.Ch. Degree, having previously completed the prescribed curriculum of study. A Master in Obstetric Science must have passed the M.B. and B.Ch. Examinations and produce certificates of having attended—(1) One winter course in Midwifery; (2) six months' practice in a recognised Lying-in Hospital, or Maternity; (3) a summer course in Obstetric Medicine and Surgery; and (4) two months' practice in the Cow-pock Institution of the Local Government Board for Ireland. The higher Degrees in Medicine (M.D.) and Surgery (M.Ch.) are conferred on graduates in Medicine and Surgery of three years' standing on complying with certain regulations, such as the reading of a thesis publicly before the Regius Professors of Physic and Surgery respectively. The University also grants Licences to Practise Medicine, Surgery, and Midwifery—or Obstetric Science—to candidates who have matriculated in Medicine, and who have *completed two years in Arts*, and four years in Medical Studies. The curriculum and examination required for these Licences are identical with those for the Degrees in Medicine, Surgery, and Obstetric Science respectively. From the antiquity and fame of the University of Dublin, and from the fact that their possession implies a full curriculum in Arts, the degrees in the Medical Faculty of the University are in great repute, and deservedly so. A qualification in State Medicine also is granted, after a searching and practical Examination, to candidates who are Graduates in Medicine of the University.

II.—The King and Queen's College of Physicians in Ireland was incorporated by Charter in 1667, and was re-incorporated by Charter of William and Mary in 1692, since which year it has been known under its present name. The College of Physicians grants the following qualifications:—(1) Licence to Practise Medicine; (2) Licence to Practise Midwifery; (3) Licence to Practise as a Midwife and Nurse-tender. Of these the first two are registrable qualifications, and are in much request. In the year 1883 as many as 154 candidates presented themselves for the Licence in Medicine, of whom 124 were successful; and 133 for the Licence in Midwifery, of whom 120 passed. Stated Examinations for the Licences in Medicine and Midwifery are held in the week following the first Friday in each month, except August or September. Among other requirements for the Licence in Medicine is an attendance during twenty-seven months at a recognised Medico-Chirurgical Hospital, six winter or three summer months in each of three years being the period allotted for clinical instruction. A three months' clinical study of fever, with notes of five fever cases is also required of candidates. The Professional Examination is divided into two parts, namely,—First: Anatomy, Physiology, Practical Histology, Chemistry, and Materia Medica. Second: Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics. The Licence in Midwifery is open to qualified candidates, who are not Licentiates in Medicine of the College, on certain specified conditions, a privilege which is largely availed of. The College also grants a Certificate in Sanitary Science to Licentiates in Medicine, as well as to Registered Medical Practitioners of the United Kingdom generally. In the case of the latter class of candidates the fee is raised from five to ten guineas. The examination for this certificate is held quarterly, in January, April, July, and October, and embraces the following subjects:—(1) Engineering; (2) Law; (3) Ætiology and Prevention of Disease; (4) Chemistry; (5) Meteorology, Climatology, and Vital Statistics. The candidates are further examined in analytical chemistry of air, water, and food. The higher qualifications are the Membership and the Fellowship. Only Licentiates in Medicine of the College are eligible for the Membership, and Members alone are eligible for the Fellowship. An examination for the Membership is held quarterly in January, April, July, and October, except in the case of candidates who were already Licentiates in Medicine on December 12th, 1878, the date upon which the Supplemental Charter of the College, constituting the order of Members, was granted. The Fellows are elected by ballot on fixed days in April and October. It is necessary to observe that the College of Physicians admits women to its Licences and the Membership. They are, however, debarred from the Fellowship under the terms of Russell Gurney's Act of 1876 (39 & 40 Vict. cap. 41.).

III.—The Royal College of Surgeons in Ireland was founded exactly one hundred years ago, in 1784. In 1882 the Regulations relating to the Education and Examination of Candidates for the Licence to Practise Surgery were completely re-modelled. Every candidate for the diploma, or "Letters Testimonial," is required to pass a Preliminary Examination, and Four Professional Exami-

nations in successive years. The Letters Testimonial will not be granted to any candidate at an earlier period than forty-five months subsequent to his registration as a medical student, or to any one who has not attained the age of 21 years. The First, Second, and Third Professional Examinations are held in the July and October of each year. Should a student fail to pass in July, he may present himself at the Examination held in October. As a rule, the Examination of each year must be passed before a new session can be entered on. The Fourth and Final Professional Examination is also held in July and October, and in the following April. The College grants, in addition to the Letters Testimonial, a Diploma in Midwifery. Every candidate must be a Fellow or Licentiate of the College. Candidates for the Fellowship are admitted to Examination under five grades:—(1) As candidates possessing no qualification; (2) as Licentiates of the College of less than ten years' standing; (3) as candidates of less than ten years' standing, possessing qualifications in Surgery of other bodies; (4) as Licentiates of the College of more than ten years' standing; and (5) as candidates of more than ten years' standing, possessing qualifications in Surgery of other bodies.

IV.—The Royal University of Ireland. On the 15th of August, 1879, an Act "to promote the advancement of learning, and to extend the benefits connected with University Education in Ireland" received the Royal Assent, and on April 27th, 1880, Letters Patent were issued founding an University in accordance with the provisions of the University Education (Ireland) Act, 1879, just referred to, under the style and title of "The Royal University of Ireland." This, the youngest but one of the Universities of the United Kingdom, may be said literally to have been built upon the ruins of the Queen's University in Ireland. In the Medical Faculty three degrees, those of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery, and two Diplomas, those in Obstetrics and Sanitary Science, are conferred. The degree of M.Ch., and the two diplomas are granted only to graduates in Medicine of the University. The course for the degree of M.B. is of at least four years' duration. Besides fulfilling the specified curriculum all candidates are required to pass the following examinations:—The Matriculation Examination; the First University Examination; the First and Second Examinations in Medicine; and the Degree Examination. The last three are to be passed at intervals of one year from each other. The Matriculation and First University Examinations, which must be passed by candidates for Medical Degrees, embrace the following subjects:—(1) Latin; (2) Any one of these languages, viz., Greek, French, German, Italian, Spanish, Celtic, Sanskrit, Hebrew, or Arabic; (3) English Language and Literature; (4) Mathematics; (5) Experimental Physics. One Academical year must intervene between these two Examinations. It will thus be observed that one year in Arts only is required of candidates for medical degrees in this University. Furthermore, the fees are low, namely:—Matriculation Examination, 10*s.*; First University Examination, 1*l.*; First and Second Examinations in Medicine, 1*l.* each; M.B. Degree Examination, 3*l.*; M.D. Degree Examination, 5*l.*; M.Ch. Examination, 5*l.*; Dipoma in Obstetrics Examination, 2*l.*—18*l.* 10*s.* in all, compared with 43*l.* 1*s.* payable by a candidate for the Licences of the Colleges of Physicians and Surgeons.

V.—The Apothecaries' Hall of Ireland was incorporated in 1791 (31 Geo. III., cap. 34, "An Act for the more effectually preserving the Health of His Majesty's Subjects, for erecting an Apothecaries' Hall in the City of Dublin, and regulating the Profession of an Apothecary throughout the Kingdom of Ireland"). The Hall grants one Licence which entitles its possessor to practise Medicine and Pharmacy, and is recognised as a full qualification in Medicine for appointments in the Army Medical Department, the Naval Medical Department, and the Poor Law Medical Service in both England and Ireland. Candidates for the Licence must undergo a preliminary examination and a professional examination, of which the latter is divided into two parts. The fee for the Preliminary is 10*s.*, and that for the Professional, 16*s.*; so that the total cost of this qualification is only 1*l.* 6*s.* The Hospital attendance required of candidates is apparently only eighteen months, namely, Practice of Medicine and Clinical Lectures on Medicine, during two Winter and two Summer Sessions, and Practice of Surgery and Clinical Lectures on Surgery, during one Winter and one Summer Session; there being no proviso that the surgical attendance shall not be synchronous with the Medical.

For the Examinations of the above Licensing Bodies, students are prepared in five Metropolitan and three Provincial Medical Schools, in all of which the Course of Study is adapted, with more or less variations, to the requirements of the Licensing Bodies.

The Metropolitan Schools are—(1) The School of Physic in Ireland; (2) The School of Surgery of the Royal College of Surgeons; (3) The Carmichael College of Medicine; (4) The Ledwich (Original) School of Anatomy, Medicine, and Surgery; (5) The School of Medicine of the Catholic University. The Provincial Schools are those connected with the Queen's Colleges at Belfast, Cork, and Galway. A few explanatory remarks touching each of these institutions may prove of interest:—

1. *The School of Physic in Ireland* is a Medical School formed by an amalgamation of the Schools of the College of Physicians, and of Trinity College, Dublin, in conformity with the "School of Physic Act" (40 Geo. III., cap. 84), and subsequent Acts of Parliament, particularly the Statute of 30 Viet, cap. 9. The School is governed jointly by the Provost and Senior Fellows of Trinity College, and by the President and Fellows of the College of Physicians. The Teaching Staff of the School consists of five Professors appointed by the College, and four Professors and one Lecturer appointed by Trinity College. Of the five Professors appointed by the College of Physicians, four King's Professors are, by virtue of their office, Clinical Teachers in Sir Patrick Dun's Hospital, Dublin, of which the President and the four Censors of the College are *ex-officio* Governors, and have a voice in all matters connected therewith. And in this connection it is necessary to observe that this is the only instance now in Ireland of a School of Medicine being intimately bound up with, or attached to, a hospital. A few years ago the Medical School attached to Dr. Steevens' Hospital became extinct, although clinical work is still effectually carried on in that Hospital. In this respect the Irish Hospitals and Schools present a remarkable contrast to those in London and the larger provincial towns of England. The Irish arrangement no doubt arises from the comparatively short distances between the hospitals and schools in Dublin, and it possesses the advantage of securing for both hospitals and schools a variety of talent from different quarters. The School of Physic stands at the east end of the park of Trinity College, and includes a splendid chemical laboratory, a physiological laboratory, extensive dissecting rooms, and lecture theatres and museums.

2. *The School of Surgery of the Royal College of Surgeons* is attached by charter and has existed as a department of the College for nearly a century. It is carried on within the College buildings and is specially subject to the supervision and control of the Collegiate Council, who are empowered to appoint and remove the professors and to regulate the methods of teaching pursued in the School. Within the past two years the School has been considerably enlarged, indeed reconstructed, and fitted with the most modern and improved appliances. The Anatomical Department has been entirely remodelled, and a new laboratory has been constructed for the special accommodation of students in practical physiology.

3. *The Carmichael School of Medicine* was founded in the year 1826, by Ephraim MacDowel, Richard Carmichael, and Robert Adams, Surgeons to the Richmond Hospital, under the title of the Richmond Hospital School of Medicine. Subsequently, Mr. Carmichael endowed it with a valuable Prize Fund amounting to about 100*l.* a year, and bequeathed a large sum of money to the School for building purposes. In consideration of this munificent bequest the school has since been called the Carmichael School. In 1878 it was determined to transfer the School to the south side of the city. Accordingly a site was obtained at the corner of Aungier Street and Whitefriar Place, facing York Street, in immediate proximity to the

Meath, Adelaide, and Mercer's Hospitals, and but a short distance from the City of Dublin Hospital. On this ground the present buildings, entirely new from the foundation, were erected; and in their construction and arrangements the directors have rendered every department fully adequate to the requirements of the most advanced modern teaching of Medicine and Surgery. In consequence of these changes the title was altered to that of the Carmichael College of Medicine. The buildings include a Dissecting Room of large size, a "Bone Room," a Chemical Lecture Theatre, and Laboratory, a Histology Room, capable of accommodating 250 pupils, and separate rooms for Physiological Chemistry and Physiological Instruments. Prizes to the value of over 100*l.* are awarded annually.

4. *The Ledwich School of Medicine* was founded in 1810, by Dr. Kirby, and since then has been successively under the management of the Messrs. Ledwich and Mason, after the former of whom it is named. It is situated in Peter Street, Dublin, close to the Adelaide Hospital, with which institution however it has no direct connection. Its governing body have gone with the spirit of the times, and have introduced many modern improvements, including the lighting of the Dissecting Room at night with electricity.

5. *The School of Medicine of the Catholic University* is situated in Cecilia Street, Dublin. It is conducted under the authority and supervision of the Catholic University of Ireland, of which institution it practically forms the Medical Faculty. Its students are sent up for Degrees in Medicine to the Royal University, of which several of its Professors and Lecturers are Fellows.

The Provincial Schools of Medicine are the Medical Faculties of the Queen's Colleges, which were established by Charter in 1849. These Colleges are three in number and are called Queen's College, Belfast; Queen's College, Cork; Queen's College, Galway. Before the dissolution of the Queen's University in Ireland, these Colleges were its feeders; and in order to graduate in the University not only was it necessary to undergo the two University Examinations, but three sessions at one of the Colleges should also be kept. Now, the place of the Queen's University has been taken by the Royal University, but no such intimate connection exists between the Colleges and the new University, to which the Colleges are in no way affiliated.

The Clinical Hospitals of Dublin are ten in number, exclusive of the Rotunda Lying-in Hospital, the Coombe Lying-in Hospital, Cork Street Fever Hospital and House of Recovery, the Children's Hospital, Eye and Ear Infirmaries, Orthopædic Hospitals, Westminster Lock Hospital, etc.

We can but name them here in chronological order.

1720.—Dr. Steevens' Hospital.
1721.—The Charitable Infirmary, Inn's Quay (afterwards Jervis Street Hospital).
1734.—Mercer's Hospital.
1770.—Meath Hospital (constituted the County Dublin Infirmary in 1773).
1791.—House of Industry Hospitals (Richmond, Surgical, Whitworth, Medical, and Hardwicke Fever).
1798.—Sir Patrick Dun's Hospital (opened in 1808).
1832.—City of Dublin Hospital.
1834.—St. Vincent's Hospital.
1861.—Mater Misericordiæ Hospital.
1861.—Adelaide Hospital.

Among the principal Provincial Hospitals are the Belfast Royal Hospital; the North Charitable Infirmary, Cork; the South Charitable Infirmary and County Hospital, Cork; the County Infirmary, Galway; and Barringtons' Hospital and City of Limerick Infirmary.

Ophthalmic Hospitals.—At the Royal London Ophthalmic Hospital, Moorfields, the Surgeons attend daily at 9 a.m. Fee for clinical instruction, six months, 3*l.* 3*s.*, perpetual, 5*l.* 5*s.* At the Royal Westminster Ophthalmic Hospital, which contains 13 wards, with 50 beds, the patients are seen daily at 1 p.m., and operations take place at 2. The fees for students are the same as at Moorfields.

THE CLINICAL HOSPITALS OF DUBLIN.

DR. STEEVENS' HOSPITAL.

Medical and Surgical Staff.—*Physicians:* Dr. H. J. Tweedy; Dr. R. A. Hayes. *Obstetric Physician:* Dr. A. Duke. *Surgeons:* Mr. W. Colles; Mr. E. Hamilton; Mr. R. M'Donnell. *Resident Surgeon:* Mr. T. Myles.

Fees.—Hospital Practice, nine months, 12*l.* 12*s.*; ditto, six months, 8*l.* 8*s.* Further particulars may be learned from the Resident Surgeon at the Hospital; or from Dr. R. A. Hayes, Hon. Sec., 32, Merrion Square South.

JERVIS STREET HOSPITAL, DUBLIN.

Medical and Surgical Staff.—*Physicians:* Dr. Stephen M. MacSwiney; Dr. William Martin. *Surgeons:* Mr. Austin Meldon; Dr. W. Stoker; Dr. J. J. Cranny; Dr. Robert MacDonnell; Mr. J. V. Lentaigne; Dr. C. Gunn; Mr. A. G. Chance.

This Hospital, which is now rebuilt upon an extensive scale, is most central in situation. From its proximity to the quays and principal factories it presents unrivalled opportunities to the students of seeing every form of surgical injury. An extensive Dispensary for out-door patients is attached to the Hospital, at which the students are allowed to perform minor operations, under the guidance of the Surgeon on duty, and are rendered familiar with the details of dispensary practice. Instruction is given by the Physician and Surgeon on duty on alternate mornings, between 9 and 11 o'clock, at the bedside, when the nature, progress, and treatment of each case are explained. Two clinical lectures are delivered each week on the most important cases under treatment, when pathological specimens are exhibited. Surgical instruments and appliances of all kinds are constantly made the subject of special instruction. Surgical operations are performed on Tuesday mornings, at 10 o'clock, except in cases of emergency, when due notice is given if possible. Practical Pharmacy is taught under the superintendence of the Apothecary.

Resident pupils and dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two interns are appointed each half year, and are provided with apartments, &c., free of expense. Special certificates are given to the resident pupils and dressers who have performed their respective duties to the satisfaction of the physicians and surgeons. Certificates of attendance are recognised by all the licensing bodies and examining boards in the United Kingdom.

MERCER'S HOSPITAL, WILLIAM STREET, DUBLIN.

Medical and Surgical Staff.—*Physicians:* Dr. T. P. Mason; Dr. Charles Frederick Knight. *Surgeons:* Mr. E. S. O'Grady; Mr. F. Alcock Nixon; Mr. M. A. Ward.

This Hospital is situated in a central position, and is in close proximity to the School of the Royal College of Surgeons, to the Carmichael College of Medicine and Surgery, to the Catholic University, and the Ledwich School of Medicine.

Fees for the winter and summer session (nine months) 12*l.* 12*s.*; for the six winter months, 8*l.* 8*s.*; for the three summer months, 5*l.* 5*s.* Further information can be obtained from any of the medical officers of the Hospital, or from Dr. James Shaw, Registrar to the medical staff.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

Medical and Surgical Staff.—*Physicians:* Dr. Arthur Wynne Foot and Dr. John William Moore. *Surgeons:* Sir George H. Porter, Mr. James H. Wharton, Mr. Philip Crampton Smyly, Mr. Rawdon Macnamara, Mr. Lambert H. Ormsby, Mr. William J. Hepburn.

The session will commence on October 1st, and the course of clinical lectures on the first Monday in November. Clinical lectures, of which four will be delivered weekly, and instructions in Medicine and Surgery will be given on alternate days. The physicians and surgeons on duty will visit the Hospital at 9 a.m., so as to allow the members of the class to be in attendance at their respective Schools of Medicine at 11 a.m. The Hospital, which contains 120 beds for the reception of medical and surgical cases, and to which an extensive dispensary (open daily), lending library, and physical laboratory are attached; is within a few minutes' walk of the University, the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, and the Ledwich School of Medicine. An additional ward has been erected for the reception of children, in which the pupils will have an opportunity of studying that highly important subject—infantile disease. Certificates of attendance at this Hospital are recognised by all the universities, colleges, and licensing bodies in the United Kingdom. Prizes will be given at the termination of the winter course to the best students in their respective classes. The office of Resident Pupil is open to pupils as well as apprentices. Further information may be obtained on application to Mr. W. J. Hepburn, Hon. Sec., 31, Upper Merrion Street, Dublin; or at the Hospital.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

Medical and Surgical Staff.—*Physicians*: Dr. J. T. Banks; Dr. B. G. M'Dowel; Dr. S. Gordon; Dr. R. D. Lyons. *Surgeons*: Mr. William Stokes; Mr. William Thomson; Mr. W. Thornley Stoker; Mr. A. H. Corley. *Consulting Obstetric Surgeon*: Dr. Kidd. *Assistant Physician*: Vacant. *Ophthalmic Surgeon*: Dr. A. Jacob.

Clinical instruction will commence on October 1. These Hospitals contain 312 beds—110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases. Premiums will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1,200 patients, adjoins these Hospitals. Eight resident clinical clerks are appointed each half year.

Fees.—For the winter and summer session (nine months), 12*l.* 12*s.*; for the six winter months, 8*l.* 8*s.*; for the three summer months, 5*l.* 5*s.* Resident clinical clerks, 21*l.* for the winter session, 15*l.* 15*s.* for the summer session, including certificate of attendance.

SIR PATRICK DUN'S HOSPITAL.

Medical and Surgical Staff.—*Physicians*: Dr. John Malet Purser; Dr. W. G. Smith; Dr. J. Magee Finny. *Midwifery Physician*: Dr. J. R. Kirkpatrick. *Surgeons*: Dr. Thomas E. Little; Dr. Edward H. Bennett; Dr. Charles B. Ball.

Fees.—*Clinical Lectures and Hospital Attendance.*—The payment of 12*l.* 12*s.* entitles a student to the benefits of hospital attendance and clinical teaching for the winter and summer sessions, commencing October 1. Fee for winter session only, 8*l.* 8*s.*; fee for summer session only 5*l.* 5*s.* *Practical Midwifery.*—Students desirous of entering for twelve months' instruction in Practical Midwifery are required to pay a maternity fee of 3*l.* 3*s.* each. Students of Trinity College are not liable to any other payment for instruction in Practical Midwifery. Other students are required to pay 3*l.* 3*s.* each to the King's Professor for twelve months' practical instruction, in addition to the hospital maternity fee. Students who have paid the hospital maternity fee are entitled to attend the demonstrations in Obstetric Surgery given by the King's Professor.

Prizes.—The governors of the Hospital award a silver clinical medal in Medicine to the student who shall pass the best examination on the medical cases treated in the Hospital during the year; and a silver clinical medal in Surgery to the student who shall pass the best examination on the surgical cases treated in the Hospital during the year.

CITY OF DUBLIN HOSPITAL, UPPER BAGGOT-STREET.

Physicians: Dr. Hawtrey Benson and Dr. George F. Duffey. *Surgeons*: Mr. Henry Gray Croly, Mr. William I. Wheeler, and Dr. Henry Fitzgibbon. *Ophthalmic and Aural Surgeon*: Mr. Arthur H. Benson. *Gynæcologist*: Dr. William J. Smyly.

Fees—Nine months' hospital attendance, 12*l.* 12*s.*; six months, 8*l.* 8s.; three months, 5*l.* 5*s.* For further particulars apply to Mr. Wheeler, 27, Lower Fitzwilliam Street.

ST. VINCENT'S HOSPITAL, DUBLIN.

Medical and Surgical Staff.—*Physicians*: Dr. Francis J. B. Quinlan, Dr. M. F. Cox. *Surgeons*: Mr. Edward D. Mapother, Mr. J. S. McArdle. *Gynæcologist*: Dr. J. A. Byrne. *Ophthalmic Surgeon*: Mr. Redmond.

Fees.—Winter and summer session, 12*l.* 12*s.*; separately, 8*l.* 8*s.* and 5*l.* 5*s.* Further particulars may be learned on application to the Secretary of the Medical Board, Dr. McArdle, 7, Upper Merrion Street, Dublin, or at the Hospital during the hours of attendance.

MATER MISERICORDIÆ HOSPITAL, ECCLES STREET, DUBLIN.[1]

Medical and Surgical Staff.—*Physicians*: Dr. Christopher J. Nixon, Dr. Joseph Redmond, Dr. Michael Boyd. *Assistant-Physician*: Dr. John Murphy. *Surgeons*: Mr. Patrick J. Hayes, Mr. Charles Coppinger, Mr. Malachy Kilgarriff. *Assistant-Surgeon*: Mr. Kennedy. *Obstetric Physician*: Dr. T. M. Madden.

Certificates of attendance upon this Hospital, which contains 250 beds, including 50 beds for fever and other contagious diseases, are recognised by all the licensing bodies in the United Kingdom.

Prizes.—Two clinical prizes (the "Leonard Prizes") of 15*l.* each, one medical and one surgical, will be given at the end of the winter session.

Fees.—For nine months, 12*l.* 12*s.*; six winter months, 8*l.* 8*s.*; three summer months, 5*l.* 5*s.*

ADELAIDE MEDICAL AND SURGICAL HOSPITALS, PETER STREET, DUBLIN.[1]

Physicians: Dr. Henry H. Head and Dr. James Little; *Obstetric Physician*: Dr. R. D. Purefoy; *Assistant Physician*: Dr. Wallace Beatty; *Surgeons*: Mr. J. K. Barton and Mr. Kendal Franks; *Ophthalmic Surgeon*: Dr. Rosborough Swanzy.

Further particulars can be obtained from any member of the staff.

ROTUNDA HOSPITALS, RUTLAND SQUARE, DUBLIN.

Master: Arthur V. Macan, M.B., B.Ch., M.A.O., F.K.Q.C.P.: *Consulting Physician*: James Little, M.D., F.K.Q.C.P.; *Consulting Surgeon*: William Colles, M.D., *Assistant Physician*: Richard Henry, M.D., and John Lilly Lane, F.R.C.S.I.; B.A., L.K.Q.C.P., L.R.C.S.I.; *Pathologist*: G. F. Duffey, M.D., F.K.C.P.

This Institution consists of two distinct Hospitals, namely, the lying-in-hospital, into which 1,200 labour cases are on an average admitted annually, and the auxiliary hospital, set apart for the reception and treatment of patients suffering from the various forms of uterine and ovarian disease; about 500 patients are received into this hospital during each year. There is also in connection with the Hospital a large extern maternity (1,500 patients were in the past year attended at their own homes), and a dispensary for diseases peculiar to women, which is open daily. Pupils

[1] No Return.

are admitted to the practice of all these departments. Clinical instruction in Midwifery and the Diseases of Women is given daily, and lectures are delivered regularly during the session on these subjects. The diploma from this Hospital is granted to pupils on their passing an examination before the Master and Assistants, after a period of six months' attendance on the practice of the Hospital. It is recognised by the Local Government Board as a qualification in Midwifery for all hospitals and dispensaries under their control. Accommodation is provided for a limited number of intern pupils. Pupils can enter at any time.

Terms of Attendance.—Intern pupils, for six months, 21*l.*; three months, 12*l.* 12*s.*; two months, 9*l.* 9*s.*; one month, 6*l.* 6*s.* Extern pupils, for six months, 10*l.* 10*s.*; three months, 6*l.* 6*s.* Application to be made to the Master or Assistant-Physicians, at the Hospitals, Rutland Square, Dublin.

PROVINCIAL MEDICAL SCHOOLS IN IRELAND.

QUEEN'S COLLEGE, BELFAST. — FACULTY OF MEDICINE.[1]

Professors and Lecturers.

Anatomy and Physiology—Dr. P. Redfern.
Chemistry—Dr. E. A. Letts.
Materia Medica—Dr. J. S. Reid.
Medical Jurisprudence—Dr. J. F. Hodges.
Midwifery—Dr. R. F. Dill.
Natural Philosophy—Dr. J. D. Everett.
Practice of Medicine—Dr. James Cuming.
Practice of Surgery—Dr. A. Gordon.
Zoology and Botany—Dr. R. O. Cunningham.

The demonstrations in Anatomy are delivered by Dr. Anderson. The lectures in Midwifery, six months' course, will commence on February 1, and the lectures in Medical Jurisprudence and the courses of Botany and Practical Chemistry will commence in May.

Fees.—Anatomy and Physiology—First course, 3*l.*; each subsequent course, 2*l.* Anatomical Demonstrations and Practical Anatomy—each course, 3*l.* Practical Chemistry, 3*l.* Other medical lectures—first course, 2*l.*; each subsequent course, 1*l.*

Two Medical Scholarships are awarded to the students of each year of the medical course. The examinations commence on October 23.

Clinical Instruction is given at the following Hospitals :—

Belfast General Hospital.—A winter session, 5*l.* 5*s.* A summer session, 2*l.* 2*s.* Perpetual fee, payable in one sum of 10*l.* 10*s.*, or two instalments of 5*l.* 5*s.* each on entering for the first and second years. Hospital fee, 10*s.* 6*d.* each winter or summer session.

The Ulster Hospital for Diseases of Women and Children and Midwifery Dispensary, 11, Fisherwick Place—Fee for winter six months, 3*l.* 3*s.*

The Belfast Lying-in Hospital—Fee for the session, 2*l.* 2*s.*

The Belfast District Lunatic Asylum — Fee for course, 3*l.*

QUEEN'S COLLEGE, CORK. — FACULTY OF MEDICINE.

Professors.

Anatomy and Physiology—Dr. J. J. Charles.
Chemistry and Practical Chemistry—Dr. Maxwell Simpson.
Materia Medica—(vacant).
Midwifery—Henry Corby, B.A., M.D., M.Ch.
Natural Philosophy—Prof. John England.
Practical Anatomy—The Professor, assisted by Demonstrators.
Practice of Medicine—Dr. D. C. O'Connor.
Practice of Surgery—Dr. Stephen O'Sullivan.
Zoology and Botany—Professor M. Hartog.

[1] No Return.

All the lectures are recognised by the Royal University of Ireland, by the Universities of London, Glasgow, Aberdeen, and St. Andrew's; the Colleges of Surgeons of Dublin, Edinburgh, and London; by the Apothecaries' Companies; by the Army, Navy, and East Indian Medical Board, &c.

Hospital Attendance.—Clinical lectures on Medicine and Surgery are delivered at the North and South Infirmaries, by the Physicians and Surgeons of those Institutions.—Fee for twelve months, 8*l.* 8*s.*; fee for six months, 5*l.* 5*s.* Practical Pharmacy at the same Infirmaries.—Fee for three months, 3*l.* 3*s.* Clinical Midwifery at the Lying-in Hospital, with Practical Attendance upon thirty Midwifery cases.—Fee for six months, 3*l.* 3*s.*

Clinical instruction is also given at the Mercy Hospital, the District Lunatic Asylum (Fee, 3*l.* 3*s.*), the Children's Hospital, the Fever Hospital, and the Ophthalmic and Aural Hospital.

Scholarships. — Eight Scholarships are awarded to students in Medicine, if qualified, viz., two Scholarships of 25*l.* each to students commencing their first, second, third, and fourth years. Clinical Medicine and Surgery at the North and South Infirmaries, and Clinical Midwifery at the Lying-in Hospital.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

Professors and Lecturers.

Anatomy and Physiology, and Practical Anatomy—Dr. J. P. Pye.
Botany and Zoology—Dr. R. J. Anderson.
Chemistry—Dr. T. H. Rowney.
Logic and Mental Philosophy—Dr. T. W. Moffett.
Materia Medica—Dr. N. W. Colahan.
Medical Jurisprudence—Dr. R. J. Kinkead.
Midwifery and Diseases of Women and Children—Dr. R. J. Kinkead.
Natural Philosophy—Dr. Joseph Larmor.
Practice of Medicine—Dr. John I. Lynham.
Practice of Surgery—Dr. J. V. Browne.

Clinical instruction is given at the County Galway Infirmary, Town, and Fever Hospitals which are in the immediate vicinity of the Queen's College.

Eight Scholarships of the value of 25*l.* each, and Exhibitions varying in value from 12*l.* to 16*l.* are appropriated to students pursuing the course for the degree of M.D.

Fees.—Anatomy and Physiology, 3*l.* first session; afterwards 2*l.* Practical Anatomy, 3*l.*; Practical Chemistry, 3*l.*; Operative Surgery, 3*l.*; other classes, 1*l.* for each course extending over one term only, 2*l.* for each course extending over more than one term, and 1*l.* for each re-attendance on the same. Hospitals, 4*l.* 4*s.*

For further information, application may be made to Professor Townsend, M.A., D.Sc., Registrar.

The West London Preparatory School of Medicine. —The West London Hospital, having been recently enlarged, now contains 101 beds. The extensive and populous surrounding district, the railways which converge almost to its very doors, and the neighbouring river-traffic fill its wards with every variety of accident and disease. The Staff, naturally desiring to utilize this material for the work of medical education, determined on the establishment of a Preparatory School of Medicine, where a definite course of practical instruction might be within the reach of all those students who wish to prepare themselves for one of the medical schools of the metropolis. The objects aimed at are:—(1) To give in a more complete and systematic manner than has heretofore ever been attempted, all the advantages of a year's pupilage at a first-class provincial infirmary or county hospital. (2) To give instruction in natural science. (3) To give commencing medical students an early insight into medical work, so that they may, without needless loss of time or money, be able to judge whether or not they have chosen the right profession. Arrangements have been made, by which lectures on Elementary Surgery, Elementary Physiology and Histology, Osteology and Chemistry, and Physics will be given in the winter session; and courses on Elementary Medicine, Materia Medica and Botany in the summer session. It is intended that the student shall be efficiently prepared, if he desires it, for the first examination for the L.R.C.P. Lond.

SYNOPSIS OF THE REGULATIONS OF THE EXAMINING BODIES.

EXPLANATION OF LETTERS USED IN TABLES.

(*a*) A first or second class gained in the Natural Science School, enables the student to dispense with these two years of study.
(*b*) In each examination, subjects (1) and (2) may be taken separately.
(*c*) Four years, if B.A. has been passed with honours.
(*d*) The examination in Physiology and Histology may be postponed to a subsequent year.
(*e*) Graduates who have passed the B.S. or M.B. respectively in the First Division are excused one year of hospital or two years of private practice.
(*f*) The University of Durham also grants Licences in Medicine and Surgery. The subjects of examination and other conditions are the same as those for the corresponding degrees, but no extra examination in Arts is required.
(*g*) The October examination is intended only for students who have failed in the previous July, or who have received special permission to present themselves.
(*h*) The first part may be passed at any time subsequent to completion of third year from registration as a medical student.
(*i*) Candidates who have passed the examinations of various recognised examining bodies will in certain cases be exempt from re-examination in the subjects in which they have passed.
(*j*) Graduates in Arts of a recognised university are exempt from this examination; and candidates who have passed a recognised Arts examination are not re-examined in the subjects in which they have passed.
(*k*) The first two parts may be taken together at the end of the third year, or all four parts together at the end of the fourth year.
(*l*) Graduates in Arts of a recognised university are exempt from examination in Logic and Moral Philosophy.
(*m*) The curriculum and fees for the degrees of the University of Glasgow are the same as in the case of the University of Edinburgh.
(*n*) The University also grants Licences in Medicine, Surgery, and Obstetrics respectively to candidates who have completed two years in Arts but have not taken the B.A. degree; also a degree in Obstetrics.
(*o*) Candidates who have passed the previous professional examination of a recognised corporation are excused from passing this examination.
(*p*) The College also grants a Licence in Midwifery. Fee £3 3*s*. Fee for double Licence in Medicine and Midwifery £16 16*s*.

THE ENGLISH UNIVERSITIES.

University of Oxford.

	M.B.		M.D.
	1st Examination.	2nd Examination.	
(1) Date of Examinations ...	Yearly. End of Trinity Term ...	Yearly. End of Trinity Term.	
(2) Conditions— *Examinations to be previously passed*	Examinations for B.A.	1st M.B. examination	2nd M.B. Examination.
Period of professional study required	Two years from examination in one final school (*a*)	Sixteen terms from B.A. testamur —Two years from 1st examination	Three years.
Subjects of examination and courses to be attended	Human Anatomy and Physiology — Comparative Anatomy and Physiology—Mechanical Philosophy—Botany—Chemistry	Medicine—Materia Medica—Therapeutics — Pathology — Surgery —Obstetrics—Forensic Medicine —Hygiene	A dissertation publicly read.
Hospital practice — period required	... ...	Satisfactory evidence.	

University of Cambridge.

	M.B.			M.D.	B.C.	M.C.
	1st.	2nd.	3rd.			
(1) Date of Examinations	Michaelmas and Easter Terms	Michaelmas and Easter Terms	Michaelmas and Easter Terms	... ...	Michaelmas and Easter Terms	Michaelmas and Easter Terms.
(2) Conditions— *Examinations to be previously passed*	B.A. or Previous Examination	1st M.B. ...	2nd M.B.	M.B.	M.B.	B.C.
Period of professional study required	... ...	Two years ...	Three years' residence, and five years' medical study (*c*)	Three years after M.B.	... ...	Two years from B.C.
Subjects of examination and courses to be attended	(*b*) (1) Chemistry and Physics (2) Elementary Biology	(*b*) (1) Human Anatomy and Physiology (2) Pharmacy Dissections (one season)	(*b*) (1) Pathological Anatomy (one course)—Medicine (one course) — Clinical Medicine (one course) — Medical Jurisprudence (one course) (2) Midwifery (one course and ten cases) — Clinical Surgery (one course). Thesis and *vivâ voce* examination.	Extempore essay and *vivâ voce* examination — Thesis on subject approved by the Regius Professor	(1) Surgical operations and apparatus (2) Examination of Surgical patients —Practical Surgery (one course)	(1) Pathology, and principles and practice of Surgery. (2) Clinical Surgery (3) Surgical Anatomy and operations.
Hospital practice—period required	... ...	Six months ...	Three years' Medical and one year's Surgical practice — Clinical Clerk for six months, or special charge of patients—Proficiency in Vaccination	... ...	Two years' Surgical practice — Dresser or House Surgeon for six months	

University of London.

	M.B.		B.S.	M.S.	M.D.
	Intermediate Exam.	M.B. Examination.			
(1) Date of Examinations	End of July	Beginning of October ...	Early in December	Early in December	Early in December.
(2) Conditions— *Examinations to be previously passed*	Matriculation and preliminary scientific examinations	Intermediate examination	M.B.	B.S.	M.B.
Period of professional study required	Two years from preliminary science examination	Four years' medical study from preliminary science examination — Two years from intermediate examination.			
Age	19 years.	21 years.			
Subjects of examination and courses to be attended	Anatomy, Physiology & Histology (*d*) — Materia Medica — Organic Chemistry — Practical and *viva voce* examination in each subject Dissections (two winters) — Practical Chemistry (one course) — Practical Pharmacy Certificates of attendance on three courses of lectures are required	Pathology, Therapeutics, and Hygiene—Surgery — Medicine — Midwifery (twenty labours) — Forensic Medicine — Practical and *viva voce* examination in each subject Certificates of attendance on two courses of lectures	Surgical Anatomy and operations—Examination of patients Certificate of having attended a course of Operative Surgery	Logic and Psychology—Surgery	Logic and Psychology—Medicine.
Hospital practice — period required	... ...	Two years' Medical practice and two years' Surgical practice, besides six months' special charge of patients — Proficiency in Vaccination	The same as for M.B.	(*e*) Two years' hospital practice, or one year's hospital and three years' private practice, or five years' private practice, all subsequent to B.S.	(*e*) Two years' hospital practice, or one year's hospital and three years' private practice, or five years' private practice, all subsequent to M.B.
(3) Fees	£5	£5	£5	£5	£5.

University of Durham.

	M.B. (*f*)		M.D.	M.S.	M.D. for Practitioners.
	1st Examination.	2nd Examination.			
(1) Date of Examinations	April and September ...	June and December.			
(2) Conditions— *Examinations to be previously passed*	An Arts examination recognised by the University	1st M.B.	M.B.	M.B....	An examination in Arts.
Period of professional study required ...	Two winter and one summer session	Four years' medical study, one to be spent at Newcastle	Two years' practice, subsequent to M.B.	... ...	Fifteen years' practice, subsequent to qualification.
Age	... ...	21 years	24 years ...	... ...	40 years and upwards.
Subjects of examinations and courses to be attended	Anatomy (two courses)—Physiology (one course)—Botany (one course)—Chemistry (one course) Certificates of one course of Practical Chemistry, and Practical Physiology, and of twelve months' Dissection	Medicine — Surgery — Midwifery — Forensic Medicine—Materia Medica and Therapeutics—Hygiene—Pathology The same certificates of attendance on lectures as required for M.R.C.S. Eng., with (in addition) Botany and Therapeutics, a three months' course each; and Public Health and Medicine, six months' course each	Essay and examination thereon	Surgery (written examination) — Surgical operations and instruments—Operative Surgery (one course)	Medicine — Psychology —Medicine and Hygiene — Surgery—Midwifery — Pathology — Medical and Surgical Anatomy — Therapeutics — Forensic Medicine and Toxicology. No certificates of attendance on lectures required, but a certificate of moral character from three registered practitioners.
Hospital practice — period required	... ...	Same as for M.R.C.S.E., with (in addition) one year's medical practice and clinical lectures.			
(3) Fees	£5	£5 for examination, and £6 for degree	£5 for examination, and £6 for degree	£5 for examination and £6 for degree	£52 10*s*.

Victoria University.

	M.B.			
	Intermediate Examination.	Final Examination.	M.D.	Ch.M.
(1) Date of Examinations	July and October (*g*) ...	July and October (*g*)	... ...	October.
(2) Conditions— *Examinations to be previously passed*	(1) Entrance Arts' examination, or a recognised Arts' examination, and (2) Preliminary examination in Science	The intermediate examination in Medicine ...	The M.B. final examination	The M.B. final examination.
Period of professional study required	... ...	Four years, including two passed in a College of the University, one of which to be passed subsequently to preliminary examination in Science	One year from M.B.	One year from M.B.
Age	... ...	21 years		
Subjects of examination and courses of lectures required	Anatomy (one winter session and Dissections) — Physiology, Physiological Chemistry and Histology (two winter sessions and a laboratory course)—Materia Medica and Pharmacy (one summer session and practical instruction)	*First Part* (*h*)—Systematic Surgery (one winter session)—Pharmacology and Therapeutics (one session) — General Pathology (one year and laboratory instruction) *Second Part*—Systematic Medicine (two winter sessions) — Clinical Medicine (two years)—Obstetrics, &c. (two summer and one winter session, and twenty labours)—Forensic Medicine (one summer session)—Hygiene (one summer session) — Practical Surgery (one winter session)—Clinical Surgery (two years)	An original Dissertation and examination thereon	Surgical Anatomy, Surgical Pathology (a Systematic Practical course) — Operative Surgery (a special course)—Clinical Surgery, Ophthalmology (one course).
Period of Hospital practice required	... ...	Three years—two subsequent to Intermediate Examination—Twelve months' *p.-m.* Demonstrations—Three months' Clinical Instruction in Women's Diseases—Vaccination	... ...	One year, including a six months' Surgical appointment.
Fees	£1.	Examination £2—Degree £5	£2 on sending in Dissertation and £10 on receiving Degree	Examination £2. Degree £10.

THE ENGLISH LICENSING CORPORATIONS.

Royal College of Physicians of London.

	L.R.C.P. (*i*)		
	1st Examination.	2nd Examination.	Final Examination.
(1) Date of Examinations ...	January, April, July and October	January, April, July and October	January, April, July and October.
(2) Conditions— *Examinations to be previously passed.*	A preliminary examination recognised by Medical Council	1st Examination...	2nd Examination.
Period of professional study required.	... ...	Eighteen months subsequent to registration as medical student	Forty-five months, including three winter and two summer sessions, at a recognised medical school.
Age	... ...	... ...	21 years.
Subjects of examination and lectures for which certificates are required.	Chemistry and Chemical Physics—Materia Medica—Botany and Pharmacy—Osteology Certificates of having received instruction in each of the above as well as in practical Chemistry	Anatomy (one course of lectures and twelve months' dissection) — Physiology (one course of lectures and one practical course)	Medicine (one course).—Surgery (one course).—Midwifery, &c. (one course and twenty labours).—Pathological Anatomy (one course and *p.m.* demonstrations). — Forensic Medicine (one course). — Public Health and Therapeutics.
Hospital practice—period required	... ...	... ...	Three winter and two summer sessions, nine months clinical lectures on Medicine and Surgery respectively; three months clinical study of women's diseases; six months clinical medical clerk; and six months surgical dresser.
(3) Fees	£5 5*s*.	£5 5*s*.	£5 5*s*.

Royal College of Surgeons of England.

	M.R.C.S.	
	Primary.	Pass.
(1) Date of Examinations	January, April, May, July and October	January, April, July and October.
(2) Conditions—		
Examinations to be previously passed...	A preliminary examination recognised by the Medical Council and an examination at his medical school in Elementary Anatomy and Physiology	The primary examination.
Period of professional study required...	... ...	Four years subsequent to registration as a medical student.
Age	... ...	21 years.
Subjects of examination and lectures for which certificates are required	Anatomy (lectures and dissections during two winter sessions)—Physiology (lectures during one winter session and one practical course)	Surgery (lectures during one winter session and a six months' practical course)—Medicine (one course)—Midwifery (one course and ten labours) — Surgical Anatomy. Certificates are also required of attendance on one course each of Chemistry, Materia Medica, Forensic Medicine, and Pathology, and of practical instruction in Chemistry, Pharmacy and Vaccination.
Hospital practice—period required ...	... ...	Three winter and two summer sessions; clinical lectures on Surgery during two winter and two summer sessions; and the same on Medicine during one winter and one summer session; six months dresser.
(3) Fees	£5 5*s*.	£16 15*s*.

Society of Apothecaries, London.

	L.S.A.	
	Primary Examination.	Final Examination.
(1) Date of Examinations	Every Wednesday and Thursday ...	Every Wednesday and Thursday.
(2) Conditions—		
Examinations to be previously passed...	An examination in Elementary Mechanics recognised by Medical Council	The first examination (*i*).
Period of professional study required...	Two winter and one summer session	Forty-five months, including three winter and two summer sessions, at a recognised school.
Age	... ...	21 years.
Subjects of examination and lectures for which certificates are required	Anatomy and Physiology (two winter courses, dissections and demonstrations)—Chemistry (one course of lectures and one of practical Chemistry)—Materia Medica and Botany (one course each) — Pharmacy (a practical course)—Histology	Medicine (one course and lectures, and two years' hospital practice)—Pathology and Therapeutics (one course) — Midwifery, &c. (one course and twenty labours) — Forensic Medicine (one course) — Microscopical Pathology. Certificates are also required of attendance on one course of Surgery and of proficiency in Vaccination.
Hospital practice—period required ...	... ...	Three winter and two summer sessions—clinical clerkship.
(3) Fees	£3 3*s*.	£3 3*s*.

THE SCOTTISH UNIVERSITIES AND LICENSING CORPORATIONS.

University of Edinburgh.

	M.B. and C.M.				M.D.
	1st part.	2nd part. (*k*)	3rd part.	4th part. (*k*)	
(1) Date of Examinations	October and April	July and April ...	June	June	
(2) Conditions—					
Examinations to be previously passed	A preliminary Arts examination (*j*)	The first part	The second part ...	The third part ...	M.B. and C.M., and an examination in Greek and Logic and Moral Philosophy (*l*).
Period of professional study required	One year	Three years	Four years	Four years (including one at Edinburgh and one at another University)	Two years' practice subsequent to M.B.
Age	... ...	... ...	... ...	21 years...	24 years.
Subjects of examination and lectures, for which certificates are required.	Chemistry (course of one hundred lectures and a three months' practical course) — Botany (fifty lectures)	Anatomy (one hundred lectures and a course of dissections) — Physiology (one hundred lectures)—Materia Medica (one hundred lectures and a practical course)—Pathology (one hundred lectures, or fifty lectures and an extra course of practical Medicine)	Surgery (one hundred lectures) — Medicine (one hundred lectures) Midwifery (one hundred lectures and a practical course of six labours)—Forensic Medicine (fifty lectures)	Clinical Medicine (one hundred lectures)—Clinical Surgery (one hundred lectures)	A Thesis.
Hospital practice—period required.	... ...	... ...	... ...	Two years and six months' out-patient or dispensary practice	
(3) Fees	... ...	... ...	... ...	For degrees of M.B. and C.M. £22	£5 5*s*. and £10 Government Stamp.

University of Glasgow. (*m*).

	M.B. and C.M.				M.D.
	1st part.	2nd part.	3rd part.	4th part.	
(1) Date of Examinations	October and April ...	October and April	October and April ...	June and July	Requirements identical with those of the University of Edinburgh.
(2) Conditions—					
Examinations to be previously passed	A recognised Arts examination	The first part ...	The second part ...	The third part	
Period of professional study required	One year	Five sessions ...	At end of third winter session	Four years (including two at a recognised University	
Age	... ...	... ...	... ...	21 years	
Subjects of examination and lectures, for which certificates are required.	Chemistry — Botany — Natural History	Anatomy — Physiology	Regional Anatomy— Materia Medica and Pharmacy — Pathology	Surgery and Clinical Surgery — Medicine and Clinical Medicine — Therapeutics — Midwifery — Foreusic Medicine	
Hospital practice— period required.	... ...	... ...	... ...	Two years and six months' out-patieut or dispensary practice	
(3) Fees	... ...	... ...	... ...	Same as at Ediuburgh	

University of Aberdeen.

	M.B. and C.M.; and M.D.
Date of Examinations...	There are three examinations for M.B., each held in April and July.
Conditions—	
Examinations to be previously passed	Requirements and fees the same as in the University of Ediuburgh.
Period of professional study required	One of the four years of medical study to have been in the University of Aberdeen and another in a recognised Universitv.

University of St. Andrew's.

	M.B. and C.M.; and M.D.	M.D. For Practitioners.
(1) Date of Examinations	End of April	End of April.
(2) Conditions—		
Examinations to be previously passed	Requirements and fees the same as in the University of Ediuburgh	
Period of professional study required	Two of the four years of medical study to have been in a recognised University	
Age	21 years	40 years.
Subjects of examination and lectures, for which certificates are required	The same as in other Scottish Universities An original dissertation is required of Candidates for the M.B. and C.M.	Materia Medica and Therapeutics—Forensic Medicine—Medicine and Pathology—Surgery—Midwifery.
Hospital practice— period required	... ...	Three certificates as to professional position from medical men are required.
(3) Fees	£21	£52 10*s*.

Royal Colleges of Physicians and Surgeons of Edinburgh.

	Double Qualification (L.R.C.P. and L.R.C.S., Ed.)	
	1st Examination.	2nd Examination.
(1) Date of Examinations ...	January, April, July and October ...	Immediately after 1st examination.
(2) Conditions—		
Examinations to be previously passed	A recognised Arts' examination ...	The 1st examination (*o*).
Period of professional study required	One summer and two winter sessions	Forty-five months, including four winter, or three winter and two summer, sessions at a recognised school.
Age	... ...	21 years.
Subjects of examination and courses of lectures required.	Anatomy (two wiuter courses and twelve months' Dissectious, or one winter course and eighteen months' Dissections) — Physiology (fifty lectures) — Chemistry (a six months' course and a three months' practical instruction).	Medicine (a six months' course and six months' cliuical lectures) —Surgery (a six months' course and six months' cliuical lectures)—Midwifery, &c. (a three months' course and six labours) —Materia Medica (a three months' course and three months' practical Pharmacy)—Pathological Anatomy (a three months' course or attendance in *p.-m.* room)—Forensic Medicine (a three months' course).
Hospital practice — period required.	... ...	Twenty-four months at a general hospital and six months at a public dispensary or as assistant to a registered practitioner.
(3) Fees	£8 8*s*....	£12 12*s*.

Faculty of Physicians and Surgeons, Glasgow.

Licence :—The requirements are practically the same as those of the Edinburgh Colleges. ... ...

THE IRISH UNIVERSITIES AND LICENSING CORPORATIONS.

University of Dublin.

	M.B.		B.Ch.	M.D. or M.Ch.
	Previous Examination.	Final Examination.		
(1) Date of Examinations ...				
(2) Conditions—				
Examinations to be previously passed	The B.A. examination	The previous examination ...	The B.A. and M.B. examinations	The M.B. or the B.Ch.
Period of professional study required	... ...	Four years...	Four years	Three years subsequent to the M.B. or B.Ch.
Age				
Subjects of examination and courses of lectures on which attendance is required	Anatomy, Practical Anatomy, Physiology, Chemistry (of each one winter course)—Materia Medica, Comparative Anatomy, Practical Chemistry (of each one summer course) — Heat, Electricity and Magnetism (of each a terminal course)	Medicine, Surgery, Midwifery (of each one winter course) — Medical Jurisprudence—Histology (of each one summer course)—Physiological Anatomy, Pathology, Therapeutics, Clinical Med.	Operative Surgery and Ophthalmic Surgery (one course of each)—Dissections (two courses)	A Thesis to be read and examination undergone before the Regius Professors of Physics and Surgery respectively.
Hospital practice — period required	... ...	Three nine-months' courses of Clinical Lectures — Attendance on Fever Cases — Six months' Practical Midwifery with Clinical Lectures—One month's Vaccination		
(3) Fees	... ...	For the M.B. degree £11 ...	£10	For the M.D. degree £13. For the M.S. degree £11.

Royal University of Ireland.

	M.B.			M.Ch.	M.D.
	1st Exam.	2nd Examination.	Degree Examination.		
(1) Date of Examinations ...	April and October	April and October ...	April and October	April and October	April and October.
(2) Conditions—					
Examinations to be previously passed	Matriculation and 1st University Examination	The 1st examination ...	The 2nd examination	The M.B. degree examination	The M.B. degree examination.
Period of professional study required	One academical year from Matriculation	One academical year from the 1st examination	Four years from Matriculation	... ...	Two years' practice subsequent to the M.B.
Age					
Subjects of examination and courses of lectures on which attendance is required	Zoology and Botany (one course)—French or German	Anatomy and Physiology, Practical Anatomy, Materia Medica (of each one course) — Chemistry (a six months' course) —Practical Chemistry (a three months' course)	Anatomy and Physiology, including Histology, Practical Anatomy, Medicine, Surgery, Forensic Medicine (of each one course) — Midwifery (a six months' lectures and six months' practice with twenty labours)	Surgery and Operative and Clinical Surgery Certificate of having attended a three months' course of Operative Surgery	Clinical examination in Medicine and Surgery with reports on cases. An original Thesis.
Hospital practice — period required	... ...	Hospital Practice with Clinical Lectures (one winter session)	Hospital Practice with Clinical Lectures (eighteen months) — Attendance at a Fever Hospital (three months) —Vaccination and Dispensing		
(3) Fees	£1	£1	£3	£5	£5.

King and Queen's College of Physicians in Ireland.

	Licence in Medicine.	
	Previous Examination.	Final Examination.
(1) Date of Examinations ...	January, April, July and October ...	Monthly, except in August and September.
(2) Conditions— *Examinations to be previously passed*	A recognised Arts' examination to be passed before end of second year	The previous examination (*o*).
Period of professional study required	Two years	Four years.
Age...	... ...	21 years.
Subjects of examination and courses of lectures on which attendance is required	Practical Anatomy (two courses)—Physiology with Histology, Chemistry, Practical Chemistry, Materia Medica (of each one course)	Medicine and Pathology, Medical Jurisprudence (of each one course)—Midwifery (one course with a six months' practical course and twenty labours)—Candidates are also examined in Clinical Medicine, Hygiene and Therapeutics, and must have attended a course of Surgery.
Hospital practice — period required	... ...	Hospital Practice and Clinical Lectures (twenty-seven months)—Attendance on Fever Patients (three months).
(3) Fees	... ...	For the Licence £15 15*s*.

Royal College of Surgeons of Ireland.

	Licence.			
	1st Examination.	2nd Examination.	3rd Examination.	Final Examination.
(1) Date of Examinations ...	July and October	July and October ...	July and October	July, October and April.
(2) Conditions— *Examinations to be previously passed*	A recognised Arts' examination	The 1st examination ...	The 2nd examination ...	The 3rd examination.
Period of professional study required	Nine months from registration	Nine months from 1st examination	Nine months from 1st examination	Nine or six months from 3rd examination (*vide* below).
Age...				
Subjects of examination and courses of lectures on which attendance is required	Physics—Chemistry—Botany—Osteology — Practical Pharmacy	Anatomy (a winter course)—Physiology and Histology (a winter and a summer course)—Elementary Surgery (a winter course) — Chemistry and Materia Medica (of each a summer course)	Anatomy (a winter course of demonstrations and dissections)—Surgery (a winter course) — Candidates must produce certificates of attendance on Medicine and Medical Jurisprudence, but are not examined in those subjects	Surgery and Surgical Anatomy (a course of demonstrations and dissections)—Midwifery (one course and six months' practice with thirty labours)—Operative and Ophthalmic Surgery (of each one course)—Candidates are also examined in Medicine and Medical Jurisprudence.
Hospital practice — period required	... ...	Hospital Practice (nine months)	Hospital Practice (nine months as extern, or six months as resident pupil)	Hospital Practice (nine months as extern, or six months as resident pupil) Vaccination.
(3) Fees				

Apothecaries' Hall of Ireland.

	Licence	
	1st Examination.	2nd Examination.
(1) Date of Examinations ...	January, April, July and October (1st and 2nd Mondays)	January, April, July and October (1st and 2nd Mondays).
(2) Conditions— *Examinations to be previously passed*	A recognised Arts' examination	The 1st examination.
Period of professional study required	... ...	Forty-five months from registration.
Age...	... ...	21 years.
Subjects of examination and courses of lectures on which attendance is required	Anatomy and Physiology (one winter course)—Dissections (two winter courses)—Chemistry (one winter course and one summer course) Botany, Materia Medica (of each one summer course)—Pharmacy (twelve months), under a registered practitioner.	Medicine, Surgery (of each one winter course)—Midwifery (six months and twenty labours)—Forensic Medicine (one summer course)—Candidates are also examined in Pathology, Therapeutics and Hygiene.
Hospital practice — period required	... ...	Medical Practice and Clinical Lectures (two winter and two summer sessions)—Surgical Practice and Clinical Lectures (one winter and one summer session)—Practical Study as apprentice pupil—Vaccination.
(3) Fees	£2 2*s*.	£3 3*s*. for Examination and 10*s*. for Licence.

CORRESPONDENCE.

MEDICAL EDUCATION IN VIENNA.

(By Our Vienna Correspondent.)

I HOPE that a short account of the educational arrangements at the Medical Faculty of Vienna, which has long been a favourite place of resort for foreign medical students and practitioners, may prove of some use to the English readers of your valuable Journal. Those who cherish the intention of some day visiting the school at which Hyrtl, Rokitansky, and Skoda received their education and carried on their important work, and which is now represented by such distinguished men as Brücke, Billroth, Bamberger, Nothnagel, Braun, Stellwag, Kaposi, and others, will find perhaps in these lines a special interest.

Before giving you a view of the educational facilities at the Vienna Medical Faculty in general, I must devote a few words to the arrangements which especially concern the students who wish to pass their examinations here. Every student of an Austrian Medical Faculty has to attend lectures during a period of five years, and he cannot be admitted to the final examinations for the degree of Doctor of Medicine until he has fulfilled the so-called "quinquennium." Foreigners who possess the right of attending the Universities of their own country are also received at the Universities in question, and are subjected to the same laws as native students. If they have already taken the degree of doctor at a foreign faculty, they are received as "extraordinary students," and are not obliged to complete the five years if they wish to take the degree at one of the Medical Faculties of Austria, but may pass their examinations when they please.

All public lectures, most of which are delivered by ordinary professors, are open to foreigners for the same fee as is required of the ordinary student. The fee for each course of lectures is in proportion to the number of hours which they occupy during one week, each hour a week being charged at the rate of 1fl. and 5kr. (about 1*s.* 10*d.*) for the whole semester. Thus for the course of lectures on Internal Medicine, which occupies ten hours a week, the fee is 10fl. 50kr. per semester. Payment is made each semester at the commencement of the course.

The lectures in the different departments of Medicine are so arranged that the student has an opportunity of attending all his subjects in the course of five years. To elucidate this point it will be necessary to give the hours of the different lectures. The lectures on Anatomy are delivered, every day, except Sunday, from 9 to 10 a.m. The dissecting rooms are open on the same days from 8.30 a.m. till dusk, the respective professors giving demonstrations from 3 to 5 p.m. The fee for dissections and demonstrations for the whole semester is the same as that for a course of six hours a week, namely, 6fl. 30kr. From the beginning of the next semester, the lectures on Anatomy and the demonstrations in the dissecting rooms will be in the hands of two professors, Professor Charles Langer and Professor Charles Toldt (the latter having been appointed to the Second Chair of Anatomy, recently created). The hours of instruction coincide, as in all cases where there are two professors for the same subject, so that the students may follow whichever of the teachers they please. The lectures on Physiology and Histology, by Professor v. Brücke, take place from 11 to 12 o'clock five times a week. The physiological laboratory, also under the direction of Professor Brücke, is open on every week day, and the fee for the whole semester is the same as that for a course of six hours (6fl. 30kr.). Besides these lectures there are many others in the same departments which serve as "repetitoria," and in which students have the opportunity of perfecting their knowledge, as for instance, two so-called "private courses," by Professor Schenck, on Histology and Embryology, and courses on some selected subject in Physiology by the Extraordinary Professors Exner and v. Fleischl, assistants to Professor Brücke. The fees for these lectures, however, differ from those I have mentioned above, the extraordinary professors, privat-docents, &c., being allowed to fix whatever fees they please; hence the name "privat-Curse," or briefly "Curse," the name of the official lectures being "Vorlesungen," or "Collegia." The students of the Vienna Medical Faculty are occupied during their first two years with the various branches of Natural History (Zoology, Botany, Mineralogy) and with the above-mentioned subjects, and in the second year with Pharmacology five times a week, from 10 to 11 a.m. (delivered only in winter), by Professor Vogl.

At the beginning of the third year they commence their clinical studies and the subjects connected with them, as Pathological Anatomy and so on. The hours for Internal Medicine are from 8 to 10 a.m. in winter (in summer from 7 to 9 a.m.), those for Surgery from 10 to 12 in winter (from 9 to 11 in summer.) In each case the lectures are delivered by two professors at the same hour five times a week. Bamberger and Nothnagel being Professors for Internal Medicine, Billroth and Albert for Surgery. Pathological Anatomy is taught from 12 to 1 in winter (from 11 to 12 in summer), by Professor Kundrat. The class of Practical Pathology is held three times a week from 3 to 4 p.m., also under the direction of Professor Kundrat. Besides this there are also, as in other subjects, private courses by the assistants of the professors and others, by extraordinary professors and privat-docents, as for instance by the Extraordinary Professors Benedikt, Stern, Drasche, Schrötter, Rosenthal, Stoffella, and by the Privat-docents Rollett, Bettelheim, Breuer, Heitler, Drozda, Taksch, Bixch, Langer and Abeles in Internal Medicine; in Surgery by the Extraordinary Professors Mosetig-Moorhof, Dittel, Salzer and Böhm, and the Privat-docents Englisch, Wölfler, Hofmokl, Fieber, Ultzmann, Jurié, Frisch and Maydl. The lectures on General and Experimental Pathology, by Professor Stricker, are delivered from 1 to 2 p.m. on five days a week in winter (in summer the hours are not fixed); Forensic Medicine from 2 to 3 p.m. (five times a week), by Prof. Edward Hofmann; lectures on Mental Diseases from 5 to 6 p.m., by Professor Meynert, five times a week, and by Professor Leidesdorf, from 5 to 6½, three times a week. A student has therefore the opportunity of attending the lectures on Internal Medicine, Surgery, Pathological Anatomy, General and Experimental Pathology, Forensic Medicine and Psychiatry, or some of them in the same semester. The lectures on Dermatology, by Professor Kaposi, are delivered from 8 to 10 a.m. in winter (7 to 9 in summer); Ophthalmology from 10 to 12 in winter (in summer 9 to 11), by Professor v. Stellwag and Dr. v. Reuss (the Second Chair of Ophthalmology being vacant); Gynæcology and Obstetrics from 12 to 2 in winter and summer, by Professors Charles v. Braun and Spaeth. All these lectures are delivered five times a week, and they are fixed at such hours they can all be attended in the same semester. The lectures on Syphilis, by Professor Neumann, are delivered from 3 to 4 in winter (in summer from 9 to 10) and the lectures on the same subject, by Professor Auspitz, from 9 to 10 a.m., in both cases five times a week. Professor Auspitz will lecture for the first time in the next semester in the newly-created second clinic for Syphilis; the hour for the summer lectures in his clinic is not yet published. Lectures on Children's Diseases are delivered four times a week by Professor Widerhofer and on Surgical Pædiatrics once a week by Professor Weinlechner, both in the St. Anna Children's Hospital, from 11 to 12 in winter and summer.

Besides these official lectures, the fees for which are fixed on the scale already mentioned, there are some important courses which deserve to be noticed. The lectures on Laryngoscopy and Rhinoscopy, by Professor Schrotter, take place five times a week from 10 to 11 a.m. The course lasts six weeks, and the fee for each course is 20 florins. Professor Stoerk holds a course on the same subjects from 11 to 12 a.m. also five times a week, the length of the course and the fee being the same. Professor Schnitzler's course on the same subjects occupies from 8 to 10 five times a week, the course lasting four weeks; the fee for this too is 20 florins. There is also a course on the same subjects by Privat-docent Dr. Chiari, occupying five hours a week (the time of meeting is fixed according to the wishes of the class); the fee for each course of six weeks is 20 florins. Courses on Diseases of the Ear are delivered by the Extraordinary Professors Dr. Adam

Politzer, five times a week from 12 to 1, and Dr. Gruber, five times a week from 11 to 12; each of these courses lasts six weeks, and the fee is, for practitioners 15 florins, for students 10 florins. A further class on Diseases of the Ear meets six times a week, from 4 to 5 p.m., under the direction of Privat-docent Dr. Urbantschitsch, the duration of the course being six weeks, and the fee being for practitioners 15 florins, for students 10 florins. Privat-docent Dr. Albertus Binz also holds a class on Ear-Diseases twice a week, Saturday and Sunday, 10 to 11.30 a.m.; duration of course three months; fee for practitioners 10 florins, for students 10 florins.

It would take too much space to enumerate all the other "courses" in the different departments of medical science, and I will content myself with remarking that in the approaching semester, lectures will be delivered by 18 ordinary professors, 36 extraordinary professors, 61 privat-docents, and 31 assistants; the number of the courses being 201.

The study of Medicine at Vienna is greatly facilitated by the fact that almost all the lectures are delivered in the General Hospital, and in adjoining establishments, as the Institution for Anatomy and Physiology, the St. Anna Children's Hospital and the polyclinics. The new building of the University (a master-piece of architecture) is also in the neighbourhood of the General Hospital, so that medical students and practitioners have a good opportunity of attending the lectures delivered in the other faculties if they care to.

English students and practitioners who are not acquainted with the German language, will find that almost all the teachers in Vienna are more or less acquainted with English, and can give the necessary explanations; the only difficulty is in understanding the official lectures delivered by the ordinary professors, but they may be looked upon as providing a good opportunity of learning German. Last, but not least, in any description of the educational facilities at the Vienna Medical Faculty, the conveniences for residence and the intellectual distractions of the Austrian capital ought not to be disregarded. The Josefstadt and especially the Alsergrund, our Quartier Latin, supply students and practitioners with lodgings which are very near the General Hospital; nay, there is room for a certain number of residents in the interior of the General Hospital itself. Need I say anything about Vienna as a beautiful and pleasant city, or speak of its art institutions, its theatres, its lovely environs, or of the "kindliness" of its inhabitants? These I fancy are too well known to need mention, for many an English student in leaving us has said that here he had spent the happiest days of his life.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 13, 1884.

METHOD IN MEDICINE.

A "Students' Number" would not go forth in orthodox completeness without some words specially addressed to those about to enter on the study of a profession of whose members it has been aptly said that, while few can hope to amass a fortune in its exercise, all may expect to realise a competence. Not as novices, however, but as *confrères* and in the spirit of elder brotherhood would we welcome those whose names annually go to swell the first-year lists; who bring fresh faces to the lecture-room, and fresh intellects to train for the mastery of those great problems of life and of death which are ever present to perplex and baffle us. For no false step at the outset will more completely dwarf the object of a noble calling, and nothing is more certain to distort the relative value of its methods, than the mistaken notion that a student is no longer a student when he has passed the examinations prescribed by his curriculum, or that the possession of a diploma will suffice to shut up the term of study "in measureless content." He who would really practise his profession must be ever learning of and by it—so true is it that the wisest scholars are the most humble, and the greatest the most teachable. Moreover, starting with such a view as this—realising that life is only one great studentship—one is better enabled to appreciate the relative importance of its several stages. Examinations, for instance, lose much of their sinister significance when we come to regard them as a convenient means of reckoning the amount of progress gained; they are no longer the appalling obstacles in an intellectual steeplechase, but rather occasions of mental stock-taking, opportunities for testing how far we still retain a discriminating yet comprehensive grasp of the various threads of knowledge which we should be picking up and weaving into the pattern of our lives. Primarily, an examination is a test of the (presumed) fact that certain knowledge has been acquired by the candidates. The element of competition is quite a secondary matter, and it is one which can be hopefully attempted only by those who have so worked as honestly to satisfy the first requirement of the test. He who starts and works consistently with the idea that the thorough acquisition of knowledge is the first object, and the passing of examinations a quite subsidiary but incidentally useful diversion, will be able to face these ordeals as calmly as the ordinary diner does his cheese, and to digest them with at least equally satisfactory results. Like turnpikes on the high-road, examinations demand toll of every traveller who has elected to travel by that particular route; an idle, clever, and miscalled "lucky" vagabond may now and then contrive to beg, borrow, or steal enough to pass some or even all the gates, but this will not secure him an honourable or an honoured position in the crowd beyond. It is only those who have worked and who have earned throughout the journey who can lightly pay the toll which marks the distance traversed, and yet leave intact the self-acquired intellectual capital which they have learnt not only how to gain but how to use.

There is, of course, an "art" of examinations as there is of all other unnatural things, but its culture cannot be profitably undertaken by those whose knowledge is inadequate to the test; and for the honest and well digesting worker it may be explained in a few words. In the first place, the real meaning of each question must be fully understood before its answer is attempted; otherwise there will occur much "ink-shed" of knowledge misapplied, and therefore sure to be discredited. Such a caution may to some seem almost needless. But mistakes of this sort are so common in the examination room, and they indicate so often that habit of un-thorough haste which makes the apparent acquisition of information so easy, and its genuine possession so doubtful, that we cannot let it pass unnoticed. Speaking with a somewhat extensive knowledge of the different species of his genus, we should be inclined to say that it is the most common and conspicuous fault of the unsuccessful examinee. Secondly, give only the information of which you are

sure; or one lucky "shot" which is successful, half a hundred fail; and the "bad shot" is double-edged, revealing not only the positive ignorance displayed in a misstatement, but also the negative ignorance implied by the absence of information asked for but not forthcoming. The answer should be as full as is necessary for clearness, but no more; and so framed as to be free from all needless repetition and tautology; in other words, excellence should be aimed at in the order of its being to the point, clear, and terse. It is wonderful how much time is gained in the hardest and most keenly competitive examination by the careful reading and selection of questions, and by a brief *schema* of the stages by which each shall be answered. Method such as all this implies is not a special inspiration gained at the time of examination; it can only be obtained by practice in the methodical selection and acquisition of knowledge. There is no better means to this end than the practice of carefully reading and extracting the pith from a standard authority on each subject which is to be "got up." The very labour involved in such a process aids most powerfully in impressing its important details on the mind; the separate acts of reading the passage in the original, of marking it, of condensing its meaning into a few brief but connected sentences, and of entering these in the notebook, are as so many separate and successive blows driving the facts home into our consciousness; while, at the same time that these kernels of truths are thus safely garnered, we are fixing the habits by which they are spied out and winnowed from amongst less valuable surroundings.

The student must never forget that his work is done, not in order that he may pass examinations and gain prizes or scholarships, but that he may be fitted—or, rather, that he may learn to fit himself—to occupy in life a position to which attach the gravest responsibilities. To this end his aim must be to know and seek out and gain the truth for the truth's sake; to gather facts and to store them as far as possible in their due order, to descry the relationship between them, and to perceive their application. Theories he must meet with and be grateful for, using them thankfully, yet warily, and regarding them only as the scaffolding which enables facts to be arranged definitely in accordance with natural laws, but which can be dispensed with, and which must be taken down when at length the building of Truth's temple is complete; remembering that while theories shift and crumble, facts are immutable—naked truths which no lapse of time may alter, and which no amount of usage can wear away. It is the first aim of every student to discover and to recognise the truth; but it is the high privilege of the physician and the surgeon to learn to apply it for the benefit of others—to abolish pain, to mitigate suffering, to sustain and to prolong life, to prevent and to destroy disease, to arrest the hand of death itself. And for this the great field of human nature must be subjected to the same keen and searching observation. The cultivation of tact, patience, gentleness and sympathy must go hand in hand with that of truth and honour in the practice of professional no less than of private life. No more difficult problem, for instance, can well be set to any man than that which so often confronts the medical attendant—the question of deciding in what form and at what time the truth of which he may be the sole human repository, the only possible exponent, shall be revealed. One of the most distinguished leaders of the profession sometimes tells the story of how, as a young man, he was called upon to make a diagnosis which, involving the imputation of an inherent mortality distasteful to family pride, was received with almost scornful derision. A few years later, when time had only too fatally corroborated his forecast, the physician was consulted by a relative of his former patient, and a similar expression of opinion was met with equal incredulity. Afterwards, yet another member of the same family sought advice from the doctor whose diagnosis had been scouted years before: "You see, in spite of themselves, they could not help coming back to *the man who had told them the truth.*"

Lastly, it may be pointed out that the acquisition of knowledge by the methods which have been briefly sketched results in the formation of a confidence proportionate to the depth and breadth of its foundation. The examination-table equivalent for "stage-fright" does not exist for the man who "knows his work," or, more truly, knows his knowledge,—who is conscious that what he does know is honestly and thoroughly his own, so clearly and methodically arranged that it can be expressed without effort, and applied intelligently. Strong in the value of the information which he does possess, and can produce when asked for, such a candidate is not likely to be worried or flurried by a question here and there to which he may not, perhaps, be able to furnish a complete reply. And what is true in this respect of the examination-room is even more true of those ordeals which, in actual practice, test so keenly the thoroughness of a medical man's training. The self-confidence begotten of thoroughly-acquired practical knowledge is the parent of that calmness and resource by which victory may oftentimes be won in the face of imminent disaster. No men are perfect, and the best are liable to errors and misfortune; but the best men use their errors and learn by them. To the honest worker, even failures and mistakes become the material of future successes, and are made the stepping-stones to a more worthy self-reliance. In the practice of no other profession may it be said more truly or less boastfully that—

> . . . . thoroughly to believe in one's own self,
> So one's own self be thorough, were to do
> Great things.

SOME LETTERS OF ADVICE.

From the Dean of a London Medical School to a Widow who proposes that her son shall enter the medical profession.

Dear Madam,—I will do my best to answer your questions, but it is at all times difficult to give such advice as you require and ten times more difficult when the young man whom it concerns is a stranger to one. Your son, you say, is quick and intelligent, but not fond of books; he is high spirited, but without much self control—which, I fear, when a mother confesses it, means a good deal—and you are anxious not to expose him to the temptations of a

medical student's life without placing him under the direct supervision of someone who will advise him, control him, and in some measure take the place of a parent. In a word, you do not yet think him fit for that emblem of liberty—a latch-key. The first question then is, whether he should enter the medical profession; the second, it being decided that he shall enter it, where, when, and how he shall commence his studies.

I do not think that the fact of a boy's not being fond of books is necessarily a bar to his becoming a doctor. Ours is indeed called a learned profession, but I do not fancy that the bulk of medical men, and certainly not the bulk of medical students, are learned, in the sense of being bookish men. Some reading of books is, indeed, obligatory, but our aim nowadays is to teach much more by laboratory and ward work than by work in the study. Two or three hours a day, steadily continued, are ample to give to separate reading, and if your son has moderate application and the good sense to know on which side his bread is buttered—to use a vulgar expression—he ought not to find it difficult to devote so much of his spare time to his books. The impetus given by the novelty of his work ought to carry him through the most tedious part of it, and if he has, as you say, an observant eye and some natural quickness, he should, under competent teachers, find the remainder of it a pleasure rather than a toil. If he succeeds in qualifying, the prospect open to him is materially better than in most other professions. There are naturally always difficulties in starting, but I find that the majority of our students are making a fair income in one part of the world or another within a few years of passing their final examination.

As to *when* he should join us I think there ought to be no longer delay than is absolutely necessary. He will be eighteen next July, you say; keep him at school till then, let him read up for his preliminary examination, and if he passes it, join in the October following. *Where?* Well, of course, I have a preference for my own school, but all the London and most of the Provincial schools now give an excellent education and keep a sharp watch over their students. For one with your son's proclivities I should say a moderately small school such as ours would expose him to less danger of temptation than a larger one. *How?* By all means send him straight from school to the hospital you choose. Do not, pray, be persuaded to place him for a year or two first with a country practitioner. Such a course has been the ruin of scores of young men, who have thereby lost the habits of work impressed on them at school, and come to us puffed up with a little smattering of knowledge and disinclined to enter upon the hard drudgery which is necessary before the really interesting part of their work is reached. Your idea of placing him in the house of one of the lecturers of the school to which you send him is a good one. There are many such who would be glad to take him, and would do their very utmost to keep him out of folly. Many students, I believe, are better left to themselves; but if you distrust your son's power of self control, by all means keep him for a year or two longer in some sort of leading string. I hope that these few lines will be of some material assistance to you in making your decision.

To the Same, from a Country Apothecary.

* * * Remember, dear Madam, that the profession of Medicine is an art no less than a science, and as such should be learnt by apprenticeship as well as by studentship. In the case of other arts—say painting or engineering, for example—it would be deemed ridiculous simply to teach the sciences on which they depend, and then to turn the student adrift to practise his art as best he might. The custom is rather to let the pupil practice at first under the eye of a master, until he has shown that he can with safety take the whole responsibility upon himself. This was the rationale of the apprenticeship system which used to prevail in Medicine; and though I am willing to admit that it erred in its neglect of scientific teaching, I cannot help feeling that the present authorities are pushing matters to the other extreme, and sacrificing everything to this teaching of science. I think it would be hardly too much to say, that of the young men who yearly join the profession, only the very small number who have held responsible offices, house-surgeoncies, &c., are really competent to enter at once into the field of practice. The rest have to learn their art upon their patients. I have seen the results of the system in the young men who come to me from time to time as assistants. Many of them are entirely unable to treat a common bronchial cold, or to draw up a diet sheet, or, indeed, to deal efficiently with any of the petty ailments which form the bulk of private practice. Such cases seldom appear at the hospitals, or if they do are treated lightly, small importance being attached to any but grave and rare complaints. And even if the student should see them properly treated, the facts fail to impress him, for he has no responsibility in connection with the case, and nothing to make him remember it. Under the old system, on the other hand, the apprentice was allowed after a time to treat patients under the eye of his master, and he was thus in a position to readily grasp and retain those methods of treatment, and those nice points in diagnosis by which he saw his master succeeding after he had failed; for nothing teaches like failure. There are a thousand and one little points of treatment that made the reputation of many a country practitioner, which have never found their way into books, and which are either unknown to or ignored by the London teacher. These, under the old system, were handed down in successive generations from master to pupil, and the pupil began his art at the point where his master left off. Now, the pupil, though incalculably better grounded in science, does not, so far as his art is concerned, begin even with knowledge that his father or his father's generation possessed.

I wish we could combine the two systems—the new and the old. I have given up thinking that it would be advisable for the student to commence by apprenticeship, for I see how necessary it is to begin scientific education in the school-room, and to carry it on without a break until the time for its practical application is reached. But I strongly hold that no man should be allowed to call himself qualified and permitted as such on his own responsibility to deal with any case that comes to him, unless he can show that he has actually learnt to *treat* patients, and not merely to describe their maladies on paper. The resident appointments in the London and provincial hospitals, invaluable as they are, are not nearly numerous enough to give every student the opportunity of holding one, and the only alternative seems to be that all who have not had that advantage shall pass a certain time after their curriculum, or during the later portion of it, with some general practitioner who has public appointments which will allow him to give his pupils charge of patients with a limited responsibility. If your son is lucky enough to get a resident post at his hospital, well and good. If not, pray think over this matter—on which I have unfolded my views at such length only because I feel so strongly on it—and when the time comes, seek out some reliable practitioner who may confer on your

son some measure of the benefits that the master of old conferred on his apprentice. Be assured that by so doing you will spare him many a mortification, and his future patients, possibly, some risk.

From a Successful Surgeon to a Young Genius who has decided to study Medicine.

My Dear Boy,—I am rejoiced to hear of your decision, and you may count on my doing everything in my power to help you, both now and hereafter. I make this promise with a light heart, for I am sure that a brilliant and clever fellow like you will turn out a credit to everyone who has had anything to do with him. You must not forget, however, that genius has its special dangers and defects as well as its special facilities and advantages. And the study of Medicine is a field in which the former are often more prominent than the latter. Name and fortune are not to be made with us by a *coup*, as they may be in literature or commerce. I never remember to have heard of anyone in our profession awaking to find himself famous, and if you have ever dreamt of such fortune pray dismiss it from your mind at once. Imagination and invention such as yours may have their full play in Medicine—nowhere more so. Most of our great discoveries—Hunter's, of tying arteries for aneurysm, for instance—have been, so to speak, strokes of genius, but with us such strokes only come to those who have spent long years in observation and thought. They are like the blooming of the aloe. So my advice to you and to every other student of Medicine is, "observe, observe." Do not let yourself be discouraged by the idea that everything that is worth observing has been observed already. A fresh mind coming to a problem may see things that everyone before has missed. I have the less hesitation in impressing this advice upon you, because I know you to be, possibly by original constitution and certainly by your education, more inclined to introspection—which, if it is observation at all, is certainly of the most fruitless kind—than to the observation of external phenomena. Let me ask you, did they ever teach you at school or at college to observe a single thing but the meaning of a Greek particle or the value of a cosine. Your life has hitherto been spent amongst books, the study of which you have been taught to look upon as your end and aim. Henceforth you will have to regard books not as an end but as a means, and often a very inefficient means, towards the study of facts. What you read in them you will in nine cases out of ten be able, sooner or later, to observe and verify for yourself, and let me tell you that a fact personally observed is worth a hundred observed only vicariously. Do you remember our walk along the North Devon Coast last summer? Possibly you forget though how I pointed out to you a hundred little sights and sounds of nature while you were dreaming how to crystallize into a sonnet the vague impressions on you of the many-sounding sea. My boy, vague impressions and the conjury of sonnets and triolets have no place in Medicine, and if you do not throw them aside or grow out of them, no success will come to you in your chosen path. The truest success in Medicine, the admiration of your contemporaries and of posterity, can only be gained by faithful observation of nature, and if you desire those things that is the faculty which you must cultivate and employ. I have spoken plainly, because with your splendid abilities you will be expected to do great things with us, but if you trust only to genius and not to hard and energetic labour, you will find yourself at forty in a Bloomsbury garret, instead of in those Elysian fields of the doctors—Brook Street and Cavendish Square.

From a London Physician to an old Schoolfellow, who has asked advice about his son.

My Dear Friend,—You have put to me the problem of the day, "What to do with our boys?" I doubt not that there are at this moment, thousands of parents throughout the country in the self-same quandary as yourself. I cannot give them all the advice that I am going to give you, because if they all took it, it would defeat its own object, and would turn out very bad advice indeed. But between you and me, as old and dear friends and schoolfellows, I will say this, that for a young man of good abilities, application, and above all good manners, there is no profession which offers so certain a prospect of moderate success as that to which I have the honour of belonging. I do not speak of the so-called higher walks of it, which are indeed overcrowded, though even here for men of talent and tact, sense and sensibility, the outlook is not nearly so hopeless as it has been painted. But what I had more in my mind was the prospect open to the young general practitioner in our large cities and populous country districts. People have not now the same prejudice against young doctors as they used to have—in town the young general practitioners are having it all their own way—and where a man is thoroughly efficient, and a gentleman in every sense of the word, and not only in the conventional sense, he will not be long before making such an income as will allow him to see the piccaninnies growing up around him without despair and bitterness. You know your son better than I do, though I remember him as a singularly bright child, and may distrust his power of succeeding. But if you think well of my advice, you should without long delay let him try his chance for a scholarship at one of our old universities, mine or yours, it matters not which. At either he will learn that *savoir faire* which no one needs more than the doctor, and he will above all have an opportunity of making friends who may prove simply invaluable to him in after life. A colleague of mine used to say, that youth was the time for gaining friends and knowledge, and manhood the time for using them. But without being so cynical I may confess that I can hardly remember a friend made in my youth who, besides the pleasure of his friendship, has not been to me the source of some tangible advantage. Therefore send your son to a university where he will meet with men who are destined for other professions than his own. Make up your mind to let him enter the profession of Medicine by that channel, and your decision on his later course—for I know you hate deciding—may be for a while deferred.

From a Country Practitioner to his Son, who has just entered at a London Hospital.

* * * I hope you are comfortable in your lodgings. I daresay you will be rather lonely at first, after the merry life you have been having down here. There is no place so lonely as a large city when one is without friends. I remember when I went, as a young man, to Paris, to walk the French hospitals, I was for a time abjectly miserable until I found friends. After that the whole aspect of things underwent a change, and I had a time which I look back upon as the happiest of my life. But do not make friendships prematurely. The acquaintances that are most ready to hand are just those which are least desirable, and which you may find it most difficult to shake off if they prove uncongenial. Be sure of this, that the friendships that are best worth making are, like most other good things in this world, only gained through merit and patience. The best of your fellow-students, and especially those of

older standing than yourself, will wait to see what kind of a man you are and how you demean yourself, before proffering you their acquaintanceship. If they see you about with rowdies and idlers, they will conclude that you are a bird of the same feather—a conclusion which I am sure you do not wish them to form—and you will find that you have acquired a reputation that it may take months to break down. Therefore beware of these "old man of the sea" acquaintanceships.

As to your studies, you will get better advice from your lecturers than I can give you, for the whole plan of medical education has undergone a complete change since I was a student. We had to shift for ourselves and to help ourselves much more than the modern medical student. But do not rely too much on your teachers, and do not be satisfied with the minimum that they require of you. That is necessarily regulated according to the average, or even the less than average, mind; and I think I may say, without making you conceited, that you will find your abilities as superior to those of the ordinary run of your fellow-students, as you will find them inferior to those of the few picked men amongst them. After your long vegetation down here you will probably discover that your powers of memory and concentration are out of training, and that prolonged reading is a weariness to the flesh. Do not be disheartened at this, and do not above all things imitate those inexperienced Swiss tourists, who on the day after their arrival start off on expeditions which are only within the powers of trained muscles; otherwise you may find yourself laid up, metaphorically, with blistered feet and aching muscles. Have patience rather; mind and memory will soon get into training if you begin with short spells of study and lengthen them gradually. A few words as to the art of reading. Never read in an easy chair; if you find your thoughts persistently wandering after making honest efforts to chain them to your book, give up reading for the time; after you have finished your chapter or your subject, shut the book and see how much of it you remember, turning again to the book to repair all gaps in your memory. After each lecture read up the subject in your text-book with the help of your notes. Never let your reading be slovenly, with the notion of first getting a general idea, and filling in the details on a second reading. That is a thriftless mode of work. Try also to ask in respect to everything you read *Cui bono?* Remember that whatever you learn has a practical application. The proximate object of course is the satisfaction of your future examiners, but there is a remote object too, and by ferreting this out as well as you can in your present ignorance of later studies, you will increase those links of association which the memory needs, if it is not to be overburdened. Let your memory concern itself with facts, and not words and tables. Each fact that you read is linked to others by innumerable hidden ties, the discovery and appreciation of which make study fruitful and easy. I could find much more to say to you, but this is I think sufficient pabulum for your mind for the present.

From a prosperous young Specialist to his Brother, who desires to follow in his footsteps.

* * * I will say nothing to discourage you. It is fruitless to fight against destiny, when, as usual, it takes the form of inherited warp of nerve-cell. Strange that we should both throw back to the first baronet after two generations of soldiers, barristers, and other idlers. But while I myself say nothing to divert you from your purpose, pray let not my prosperity too much encourage you. Act as far as you can as though I and my doings had no existence. It may seem arrogant in me to warn you not to expect my good fortune, but I will do more, I will counsel and urge you to turn away from it should it offer. Sometimes I can find it in me to envy those of my contemporaries who, as the saying goes, are eating out their hearts waiting for practice that never comes. In my better moments it seems to me that eating out one's heart like that is a hundred times better than eating out one's brains as I am doing. I wonder whether anyone but the successful specialist himself ever realises the utter weariness that he often feels at spending his life in a small and monotonous field, too worn by the dull round of work to have either the time or the energy to wander into that open campaign of pure research, which is so much more varied and pleasant, if so much less remunerative. Some men can do both, but they are blessed with exceptional physique and power of work. I for my part cannot even find the inclination to work out the scientific result of my personal observations. Ten years ago, as you know, I looked forward to a long period of idle time in which I would follow my bent and give myself up to the study of science without being disturbed by the importunities of private patients. But in what I am often tempted to regard as an evil hour I took another path, and ever since have had to neglect that higher calling no less than my own scientific culture. Let this picture, written though it be perhaps in a dark moment, deter you from following that acquisitive bent which is common to all, and stifling that special, rare, and precious bent towards research which I once had, and which I am glad to think is germinating also in you. Mind, all this is no argument against specialism—it only tells against specialism over-driven. And do not think that we specialists are alone, or indeed in chief, to blame. No, it is the public who make specialism and specialists what they are. Do you think it does not gall me when men in our profession write bitter things about specialism? It galls me all the more because I know them to be partly true. But we cannot help ourselves, we are the slaves of the public, and must do their bidding. From such slavery I beg you to keep free.

From a Second-year's Student to his Friend, a Freshman.

I MEANT to have been up in town on the 1st to do the honours of the hospital to you, but a wretched sprained ankle has laid me by the heels, and I shall not be able to put in an appearance for another week. I was going to give you no end of good advice. First-year's men, fresh from the country, as a rule do heaps of silly things, simply because they have no one by their side to say "Don't." They come up brim full of enthusiasm and the best intentions, and put on a pace which it is utterly impossible to keep up. They do everything to excess. They not only read too much, but they eat too much, smoke too much, and some of them drink too much. Before they came up they were probably out from morning to night playing cricket and tennis, and the consequence of the sudden change is, that before a month is over they knock up, with a spotty face, a brain that refuses to work, and a mouth that can neither smoke nor eat. Don't you do any of these stupid things. Mind and get a run for an hour every day, if only to keep in training till the football fairly begins. And don't read too much. You will find that three-quarters of the men who begin with a spurt drop off before a month is over. It is the steady dogged two or three hours a day, week after week, that breaks the back of the first year's subjects.

Don't rush off at once and buy a new set of bones, and a spick and span dissecting box, and a surgical pocket-case, and all the books that the lecturers advise you to read. I can tell you where to pick them up cheap by the time you want them; and besides, I have always found that the men who start by investing in these fineries are the first to get rid of them and the last to use them. Then don't take elaborate notes of the lectures, and waste half your day in copying them out. There are not more than two or three of our men who are worth that amount of trouble. I can't imagine why they make us sit hour after hour in a stuffy lecture-room, when one can read the whole thing through in half the time at home. The use of a lecture, I take it, lies in what a man shows, not in what he says, and if you are scribbling for your life you miss half of it. Then don't waste your time in making pretty diagrams with coloured chalks, as you will find many of your fellow students doing. It is a babyish make-believe of work. A rough ten minutes' drawing will serve your purpose quite as well as an elaborate work of art. I can't think of any more advice at present, for it is not quite in my line, and I daresay you would not take it if I gave it. Remember, if you want to be liked by the men, you must not get set down as being either a baby or a rough.

MISCELLANEOUS INFORMATION.

CHANGES IN THE STAFFS OF THE LONDON HOSPITALS AND SCHOOLS.

St. Bartholomew's Hospital.—Dr. Norman Moore has been appointed to the Assistant Physicianship which had not been filled up at the date of issue of our last Students' Number. Mr. W. Bruce Clark has become one of the Assistant Surgeons in place of the late Mr. James Shuter. Dr. Haig has succeeded Dr. King as Casualty Physician. Dr. Hensley now lectures on Forensic Medicine in place of Dr. Southey.

Charing Cross Hospital.—Sir W. Guyer Hunter has been elected Consulting Physician. There is still a vacancy for an Assistant Physician. Dr. Mott has been appointed lecturer on Physiology in place of Dr. Wolfenden. The office of Demonstrator of Morbid Anatomy is vacant.

St. George's Hospital.—Two of the Consulting Staff have died since last year, Mr. Cæsar Hawkins and Dr. A. W. Barclay. There have been no changes of importance in the school.

Guy's Hospital.—The School and Hospital have lost the invaluable services of Dr. Hilton Fagge. Dr. Pye-Smith has become Physician. In the School, Dr. Pye-Smith lectures on Medicine with Dr. Moxon, in place of Dr. Pavy. Mr. Golding Bird has succeeded Dr. Pye-Smith as lecturer on Physiology, and Dr. Wooldridge takes the class in practical Physiology. Dr. Goodhart lectures on Pathology, in place of the late Dr. Fagge. Mr. Poland has become one of the Demonstrators of Anatomy, and Mr. L. A. Dunn has succeeded him as Surgical Registrar.

King's College Hospital.—There have been no changes of importance.

The London Hospital.—There have been no changes in the Hospital Staff. In the School, Mr. Rivington has succeeded Mr. James Adams as lecturer on Surgery, and teacher of Operative Surgery; Mr. Treves lectures on Anatomy, and Mr. Mansell Moullin teaches Practical Anatomy; Mr. F. J. M. Page takes the class in Chemical Physics.

St. Mary's Hospital.—There have been no changes in the Staff of the Hospital. Dr. Waller has succeeded Mr. Pye as lecturer on Physiology. Dr. Crichton Browne, F.R.S., has been appointed lecturer on Psychological Medicine, and Mr. Silcock has succeeded Mr. Pepper as Medical Tutor.

Middlesex Hospital.—Dr. Edis has become Obstetric Physician in succession to the late Dr. Hall Davis, and Dr. W. A. Duncan has been elected Assistant Obstetric Physician.

St. Thomas's Hospital.—The office of Curator is vacant by the resignation of Mr. Stewart, on his election at the College of Surgeons in succession to Professor Flower. The post has not yet been filled up. Dr. George Gulliver lectures on Comparative Anatomy in place of Mr. Stewart.

University College Hospital.—The office of Surgical Registrar is vacant by the resignation of Mr. Victor Horsley, who has been appointed Professor at the Brown Institute.

Westminster Hospital.—Mr. Boyce Barrow has taken charge of the Aural Department in place of the late Mr. Keene. In the School, Mr. Hebbert has been appointed Demonstrator of Anatomy, and a new chair has been created of Morbid Histology, to which Dr. Heneage Gibbes has been elected.

EDUCATIONAL VACCINATION STATIONS.—In order to provide for the granting of those special certificates of proficiency in vaccination which are required to be part of the medical qualification for entering into contracts for the performance of public vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The Vaccination Stations enumerated in the subjoined list are open, under certain specified conditions, for the purpose of teaching and examination.

2. The Public Vaccinators officiating at these stations are authorised to give the required certificates of proficiency in vaccination, to persons whom they have sufficiently instructed therein; and

3. The Public Vaccinators whose names in the subjoined list are printed in italic letters, are also authorised to give such certificates, after satisfactory examination, to persons whom they have not themselves instructed:—

LONDON.—Principal Station—Surrey Chapel, Blackfriars-road: *Dr. Robert Cory*, who attends on Tuesday and Thursday, at 2 p.m. North-west Stations—Marylebone General Dispensary, 77, Welbeck-street: Mr. William A. Sumner, on Tuesday, at 2 p.m.; Hall of the Working Men's Christian Association, Omega-place, Alpha-road: Mr. William A. Sumner, on Wednesday, at 10 a.m. West Station—9, St. George's-road, Pimlico, S.W.: Mr. Edward Lowe Webb, on Thursday, at 10 a.m. East Station—Eastern Dispensary, Leman-street: Mr. Charles T. Blackman, on Wednesday, at 11 a.m. North Station — Tottenham-court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station—2, Regent-place, Horseferry-road: Mr. William Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station—14, Russell-street, Covent-garden: Mr. Robert William Dunn, on Thursday, at 11 a.m. South-east Station—Vestry Hall, St. John's, Horselydown: Mr. John Gittins, on Monday, at 2 p.m. St. Thomas's Hospital: Dr. Robert Cory, on Wednesday, at 11.30 a.m.

BIRMINGHAM.—St. Jude's School-room, Hill-street, near Small-bank-street, on Monday, at 11 a.m.; the Assembly Rooms, 103, Constitution-hill, opposite Bond-street, on Tuesday, at 11 a.m.; the Wesleyan Methodist Infant School-room, Monument-road, on Wednesday, at 11 a.m.; the Wesleyan School-room, Peel-street, Winson-green-road, on Wednesday, at 2 p.m.; and "The British Workman" Reading Rooms, Sherborne-street, near Grosvenor-street, on Thursday, at 11 a.m.: *Dr. Edmund Robinson.*

BRISTOL.—The Public Vacciuation Station, Peter-street; *Mr. Henry Lawrence*, on Wednesday, at 10 a.m.

EXETER.—The Dispensary, Castle-street: *Mr. William A. Budd*, on Thursday, at 3 p.m.

LEEDS.—Heed-street: *Mr. Frederick Holmes*, on Tuesday, at 2.30 p.m.

LIVERPOOL.—St. Mary's School-room, Edgehill, West Derby, *Mr. Roger Parker*, on Thursday, at 2.30 p.m.

MANCHESTER.—72, Rochdale-road: *Mr. Ellis Southern Guest*, on Monday, at 2 p.m.

NEWCASTLE-UPON-TYNE.—The Central Vaccination Station, 21, Nun-street: *Mr. John Hawthorn*, on Wednesday, at 3 p.m.

SHEFFIELD.—The Public Vaccination Station, Townhead-street: *Mr. William Skinner*, on Tuesday, at 3 p.m.

EDINBURGH.—Royal Dispensary: *Dr. William Husband*, on Wednesday and Saturday, at 12. The New Town Dispensary: Dr. James O. Affleck, on Wednesday and Saturday, at 1.

GLASGOW.—The Hall of the Faculty of Physicians and Surgeons: *Dr. Hugh Thomson*, on Monday, at 12. The Royal Infirmary: Dr. Robert Dunlop Tannahill, on Monday and Thursday, at 12. The Western Infirmary: Dr. David Caldwell McVail, on Monday, at 1 p.m.

Candidates for the certificate by examination are recommended to communicate some days beforehand with the Examiner at whose station they propose to attend.

The Apothecaries' Society of London.—Prizes are annually offered by the Society for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree. Also two prizes for proficiency in the knowledge of Botany, consisting of a gold medal to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree. *Medical and Surgical Scholarships.*—Each Scholarship is of the annual value of 100*l.*, and is tenable for two years on certain conditions. It is open to all students of the medical profession whose standing at the time of the examination is not less than four and not more than five years from the date of their registration, and who have obtained and possess an English medical qualification.

Pharmaceutical Society of Great Britain: School of Pharmacy.—The session will commence on October 1st, 1884, and extend to July 31st, 1885. Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood and Mr. Dunstan, on Monday, Tuesday, and Wednesday mornings, at 9 o'clock, commencing on Wednesday, October 1st. There will be two coursss of sixty lectures during the session—the course which commences in October and ends in February being repeated, with additions, in the following five months. Each course will be complete in itself. Additional lectures in Physics and Chemistry will also be delivered by Mr. Dunstan during the course. Lectures on Botany and Materia Medica, by Professor Bentley, on Thursday, Friday, and Saturday mornings, at 9 o'clock, commencing Friday, October 3rd. During the session, two courses of lectures will be delivered, each consisting of 60 lectures. The first course, extending from October to the end of February, will comprise Botany and Materia Medica with especial reference to Structural Botany, and the use of the microscope in distinguishing the various drugs; and the second course, which commences in March and extends to the end of July, will also comprise Botany and Materia Medica, with especial reference to Systematic and Practical Botany. Each course will be complete in itself, although each will have a definite object in view. The portion of the second course on Systematic and Practical Botany, consisting of 20 lectures, commences in May and ends in July. Separate entries may be made for this portion. The laboratories for the study of Practical Chemistry will be opened on Wednesday, October 1st, at 10 a.m., under the direction of Professor Attfield, assisted by the Demonstrator of Practical Chemistry, Mr. F. W. Short, and an Assistant-Demonstrator, Mr. E. J. Eastes. Pupils can enter for any period at any date. A complete course of instruction, including the higher branches of Quantitative Analysis, occupies ten full months, and dates from the day of entry to that day twelvemonth. The laboratories are open daily. Vacation months, August and September. Prospectuses and further particulars may be had of the professors or their assistants, 17, Bloomsbury Square, W.C.

The London School of Medicine for Women.—Three of the licensing bodies now admit women for their diplomas and degrees, viz., the University of London, the Royal University of Ireland, and the King and Queen's College of Physicians in Ireland, All the courses of lectures required by these bodies are given at 30, Henrietta Street, Brunswick Square, W.C., the sessions corresponding with those of other medical schools. Clinical instruction and lectures are given at the Royal Free Hospital, which contains 150 beds; attendance on confinements is obtained in connection with one of the lying-in hospitals, and practical experience of fever cases, a certificate of which is required by the Irish College of Physicians, may be acquired at the London Fever Hospital. The composition fee for the ordinary curriculum and clinical instruction at the Royal Free Hospital amounts to 125*l.* An entrance scholarship of 30*l.* is offered for competition at the end of September in each year.

Mr. Thomas Cooke's School of Anatomy, Physiology, and Surgery.—This school is intended to meet the requirements of two distinct classes of students—*i.e.*, (1) advanced students and qualified practitioners, who may wish either to extend their knowledge of the foregoing subjects, or to recall to mind what they once knew and have since forgotten. (2) Beginners entering upon their medical studies by a short term of apprenticeship. For the former, rapid advanced classes, complete in three months, but still thoroughly practical, are provided; and for the latter, when required, more elementary classes of six months' duration. For prospectus of particulars and terms, apply to Mr. Thomas Cooke's private address, 16, Woburn Place, Russell Square, W.

Brompton Consumption Hospital.—The clinical practice of this Hospital, which has over 300 beds, is open to students of Medicine and practitioners. Fee for three months, 3*l.* 3*s.*; six months, 5*l.* 5*s.*; perpetual, 10*l.* 10*s.* A course of clinical instruction in Auscultation will be given by the medical officers. Certificates of attendance on the medical practice of this Hospital are recognised by the University of London, the Apothecaries' Society, and by the Army, Navy, and Indian Boards.

London Fever Hospital, Islington.—This Hospital is recognised by the Royal University of Ireland, and certificates of attendance on fever cases given by the Resident Medical Officer are accepted. These certificates are also accepted by the King and Queen's College of Physicians, Ireland.

Special Hospitals in London.—Besides those special hospitals already mentioned, the practice of the following may also be attended:—The Hospital for Sick Children, Great Ormond Street, W.C. (9 a.m. every day). The Evelina and East London Hospitals for Children. The Hospital for Diseases of the Throat, Golden Square, W. The Central Throat and Ear Hospital, Gray's Inn Lane, W.C. The Hospital for Women (clinical lectures during the Session). St. Peter's Hospital for Stone. St. Luke's Hospital for the Insane (two Clinical Assistants appointed half-yearly). The National Hospital for the Paralysed and Epileptic, &c.

Bath Royal United Hospital.—The Hospital contains 120 beds, is recognised by the General Medical Council, and licensed for dissection. It has a good library, and an excellent museum, containing a large number of interesting specimens both in Pathology and Comparative Anatomy. A year spent at the Hospital counts as one out of the four required before qualifying for practice. The number of patients admitted during the year was 1,053; out-patients, 8,914. Fees for attending the Hospital practice—Six months, 5*l.* 5*s.*; twelve months, 10*l.* 10*s.* Instruction in Pharmacy, 5*l.* 5*s.* Pupils entering in October can, if desired, be instructed in the subjects required for the First Professional Examination of the Royal College of Physicians, which can be passed during the year spent at the Hospital. The subjects are—Chemistry and Chemical Physics, Materia Medica and Pharmacy, Medical Botany, and Osteology. For further particulars, apply to the Registrar and Curator.

Norfolk and Norwich Hospital.—This Hospital contains 150 beds. Resident pupils are taken upon application to the House Surgeon, Mr. D. D. Day.

The Examination for Certificates in Sanitary Science by the University of Cambridge will begin on Tuesday, October 7th. The names of candidates, who must be on the *Medical Register* of the United Kingdom, should be sent to Dr. Anniugson, Cambridge, on or before September 28th.

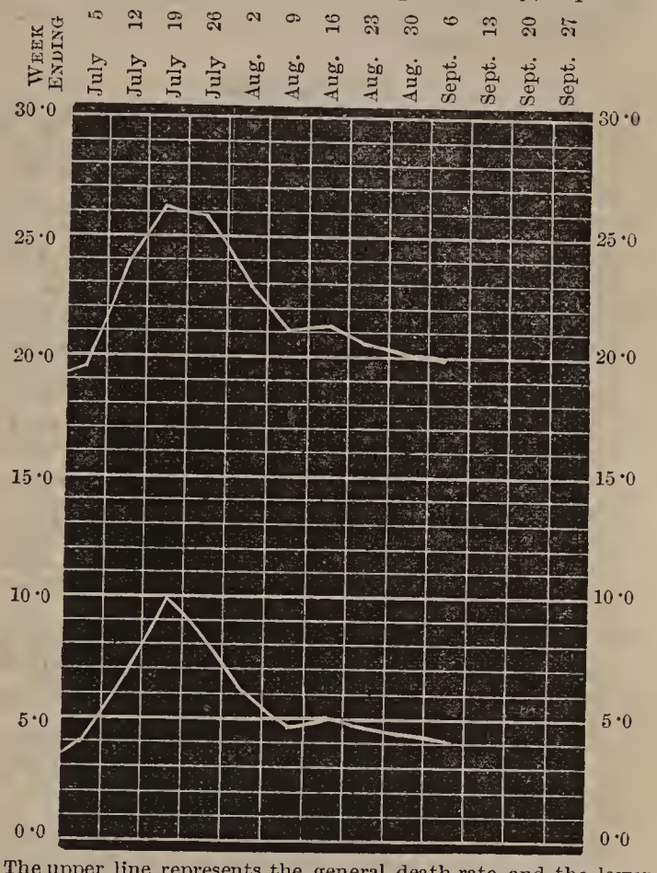
Army Medical Department.—Deputy Surgeon-General Thomas John Murphy, M.D., is granted retired pay, with the honorary rank of Surgeon-General; Brigade-Surgeon FitzGerald Edward Scanlan is granted retired pay, with the honorary rank of Deputy Surgeon-General.

EDITORIAL NOTES.

The serious character of the outbreak of cholera at Naples has shown itself in the most unmistakable manner in the rapidly-increasing daily death-roll in that city. In a few days after its first appearance the daily number of fatal cases had reached 100, and for many days now it has very considerably exceeded that figure, the latest intelligence at our disposal putting the figure at 493. During the past few days there would appear to have been many most painful exhibitions of superstitious beliefs amongst the poorer classes, to which, together with the setting at defiance of every known sanitary law, the virulence of the present epidemic may be attributed. If, however, the authorities can only profit by their experience and learn to appreciate the merits of cleanliness as compared with quarantine, the lives that are now being sacrificed in so wholesale a manner will not have been lost in vain. There has been no serious spread of the cholera in Spain since our last note on the subject, though a few cases are still reported from Alicante. The French do not seem to have quite shaken off the cholera yet, though the daily number of victims is now comparatively small.

In spite of the inclement weather last Saturday, the collection made on that day on behalf of the Hospitals has exceeded that of previous years, being already more than 2,300*l.* the amount taken last year, and there are yet some outlying districts to be accounted for. The amount obtained in the streets, however, forms only a small portion of the total Hospital Saturday Fund, the main bulk being collected in the workshops and amongst the *employés* of large business houses. This year no less than 20,000 establishments have received its collecting sheets, so that it may be confidently expected that, when these have all been returned, the sum total collected will be very considerably in excess of anything collected in this way in former years. The fund is supposed to be subscribed by the working classes, and it is evident that the main bulk of it is so collected, but the amount taken in the streets cannot of course be said to be given by any one class in particular. This being so, and the only object of the street collection being to obtain money, it seems a great pity that the suggestion, which has often been made, that the collection should be made in the season, should not be adopted.

As will be seen by a reference to our chart, the curve of the death-rate is still continuing its downward career, though the fall in each instance is but slight since last week. A considerable fall is yet necessary before the end of this quarter, if it is not to have a black mark against it as owning a death-rate much above that of the corresponding quarter of the last three years. The deaths from zymotic diseases numbered 314 during the week, just 10 per cent. above the corrected average. Of these, diphtheria accounts for 31, "and *exceeded those returned in any week on record*" (the *italics* are our own), and whooping cough for 36, as against 16 and 4 from these diseases in the previous week. Surely here is some work for the Local Government Board to do. If there is one disease more than another which is amenable to sanitation and hygiene it is diphtheria. The 31 deaths already mentioned do not, in all probability, represent



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the first ten weeks of the current quarter.

the total mortality from this eminently preventable disease, for we notice that five children under the age of five years are said to have succumbed to croup, and we shall probably not be far wrong if we assume that three out of those five died of diphtheria. Diphtheria used to be reckoned amongst the epidemic diseases; it has, however, for a long time past earned the right to be named amongst the endemic diseases of London. When are we going to banish it from our doors?

MEDICAL NEWS.

APPOINTMENTS.

Beresford, Charles William, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Markyate Street District, *vice* Dr. S. W. Mackey, resigned.

Campbell, Jas. J., M.B., C.M.—House Surgeon to the Royal Infirmary, Glasgow.

Corner, M. C., L.S.A. Lond.—Resident Medical Officer to the Tower Hamlets Dispensary, *vice* Samuel E. Pritchard, L.R.C.P., M.R.C.S., deceased.

Dalzeil, J. Kennedy, M.B., C.M.—House Surgeon to the Royal Infirmary, Glasgow.

Howard, Thomas, M.B., C.M.—House Physician to the Royal Infirmary, Glasgow.

Hunter, R. R., M.B., C.M.—House Surgeon to the Royal Infirmary, Glasgow.

Marshall, William, M.B., C.M.—House Physician to the Royal Infirmary, Glagow.

Mason, Henry, M.B., C.M.—House Surgeon to the Royal Infirmary, Glasgow.

Muirhead, Islay Burns, M.B. and C.M. Glas.—Medical Officer to the Second Aylesford District, Malling Union, *vice* Mr. Thomas Holyoake, resigned.

Peacock, Alex., M.B., C.M.—House Surgeon to the Royal Infirmary, Glasgow.

Russell, Frank, M.B., C.M.—House Physician to the Royal Infirmary, Glasgow.

Scott, Robert, M.B., C.M.—House Surgeon to the Royal Infirmary, Glasgow.

Smith, William Harvey, M.B. Durham, and M.R.C.S. Eng.—Medical Officer to the Workhouse and Meriden District, of the Meriden Union, *vice* M. W. C. Partridge, deceased.

Stark, J. Boyd, M.B., C.M.—House Physician to the Royal Infirmary, Glasgow.

White, Barrington Syer, M.R.C.S. Eng., L.M. and L.S.A. Lond.—Medical Officer to the Seventh District, Tonbridge Union, *vice* Mr. W. Fear, resigned.

VACANCIES.

County Asylum, Lancaster.—Assistant Medical Officer. Salary £100 per annum, increasing £10 annually, with board, &c. Candidates must be duly qualified and registered, unmarried and under 30 years of age. Applications with testimonials to be sent to the Medical Superintendent, before September 27th.

Gloucester County Asylum.—Assistant Medical Officer. Salary, 100 guineas per annum, with board, lodging, and washing. Candidates must be duly qualified, registered, unmarried, and not over 30 years of age. Applications and testimonials to be sent to the Medical Superintendent, on or before September 15th.

Hulme Dispensary, Manchester.—House Surgeon. Salary, £130 per annum, with furnished apartments and attendance at Dispensary. Candidates must possess registered qualifications in Medicine and Surgery. Applications with testimonials to be sent to the Honorary Secretary, Medical Committee, at the Dispensary, on or before September 17th.

Saint George in the East Parish.—Medical Officer to the South District, *vice* Dr. S. E. Pritchard, deceased. Salary, £250 per annum.

St. Peter's Hospital for Stone and Urinary Diseases, etc., Henrietta Street, Covent Garden.—House Surgeon. The Appointment will be for six months. Honorarium, 25 guineas, with board, lodging, and washing. Candidates must be M.R.C.S., and have held the position of House Surgeon at a Public Institution. Applications with testimonials to be sent to the Secretary, on or before September 30th.

Swansea Hospital.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates must be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28.

The Hospital for Women, Soho Square, London, W.—House Physician. (*For particulars see Advertisement.*)

University College, London.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

West Bromwich District Hospital.—House Surgeon. Salary, £80 per annum, with board, residence, and washing. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, &c., with not more than three recent testimonials, and accompanied by candidates' degree or diploma, and certificate of registration, to be sent to the Honorary Secretary W. Bache, Esq., Churchill House, West Bromwich, on or before September 20th.

DEATHS.

Evans, E., M.R.C.S., at 72, Clapham Road, S.W., on September 1st, in his 97th year.

King, D. A., M.B., M.R.C.P., late of 26, Harley Street, at Torquay, on September 4th, in his 28th year.

NOTES, QUERIES, AND REPLIES.

BRITISH MEDICAL BENEVOLENT FUND.

[TO THE EDITOR OF THE MEDICAL TIMES.]

Sir,—The late Sir Erasmus Wilson has munificently left the British Medical Benevolent Fund £5,000, but as Lady Wilson takes a life interest in the whole of his property, this legacy is, of course, not payable until after her death.

I take this opportunity of bringing before the profession our urgent need of funds, for we are totally unable at the present time to help many of the deserving cases that come before us.

Subscriptions may be paid to the Treasurer, Dr. Broadbent, 34, Seymour Street, Portman Square, or to

Your obedient servant,
George P. Field,
Hon. Financial Secretary.

31, *Lower Seymour Street, Portman Square,*
September 10th, 1884.

A Constant Reader.—The questions you put are points for a legal and not a medical authority.

A Guardian, Plymouth.—You will obtain the desired information in the present number. We never recommend particular hospitals

A Provincial Teacher.—The next Examinations at the College o- Surgeons will be in October. The dates will be duly advertised in the *Medical Times.*

Bibliopole.—The Library and Museum of the Royal College of Sur geons, both of which are at present closed, will be re-opened on Wednesday, October 1st.

Dr. Campbell.—Registration and Preliminary Examinations have been discontinued at the Royal College of Surgeons. Write to the Registrar of the General Medical Council, Oxford Street, who will give you information on the subject.

E. Williams.—Best made by warming together and well-mixing equal parts of olive oil and lead plaister.

J. S. P.—The article has already appeared.

COMMUNICATIONS RECEIVED—

Prof. Gairdner, Glasgow; Dr. Shelly, Hertford; Dr. Willoughby, London; Dr. Shepherd, London; Dr. Isambard Owen, London; Our Vienna Correspondent; Mr. J. T. W. Bacot, Seaton; Dr. Joseph Ewart, Brighton; Messrs. D. Judson & Co., London; The Secretary of the Apothecaries' Society, London; The Dean of the Medical School of St. Mary's Hospital, London; Mr. Knutsen, London; Mr. Mitchell Banks, Liverpool; The Superintendent of the Royal Infirmary, Glasgow; Our Glasgow Correspondent; A Constant Reader; Dr. Anningson, Cambridge; The President of Guy's Hospital, London; Messrs. Essinger & Neuburger, London; The Registrar-General, Edinburgh; The Registrar-General, Brisbane; The Sanitary Commissioner for the Punjab, Lahore; Our Dublin Correspondent; Mr. Nourse, Exeter; Mr. G. P. Field, London; Dr. Norman Moore, London; Dr. W. H. Spencer, Bristol; Dr. Sidney Coupland, London; Dr. J. Mitchell Bruce, London; Mr. Stevens, London; The Secretary of the Nightingale Fund, London; The Secretary of the British Medical Benevolent Fund, London; Dr. A. H. Jacob, Dublin; Mr. Brinsley Nicholson, London; The Hon. Secretary of the Railway Shareholders' Association, London.

BOOKS RECEIVED—

Notes on Books, by Messrs. Longmans & Co.—Lessons for the Instruction of Deaf and Dumb Children, by Wm. Van Praagh. Part 1 and 2—The Science and Art of Surgery, by J. E. Erichsen, F.R.S., &c. Vols. 1 and 2—Medical Communications of the Massachusetts Medical Society.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Bath Argus—The Philadelphia Medical Times—The Liverpool Daily Post, September 4—New England Medical Mouthly—The Ophthalmic Review—The Lincolnshire Chronicle, Sept. 5—The Evening Citizen, September 4—Popular Science News, Boston—Revue Mensuelle de Laryngologie, &c.—Le Progrès Medical—The Australian Medical Journal—The Indian Medical Gazette—Revista de Medicina—The Canada Lancet—The Boy's Own Paper.

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MEDICAL TIMES
AND GAZETTE.

No. 1786. LONDON, SATURDAY, SEPTEMBER 20, 1884.

Contents.

CLINICAL REMARKS ON PERITONITIS.[1]

II.—PERITONITIS OF THE LOWER ABDOMEN—PERITYPHLITIS.

By W. T. GAIRDNER, M.D., LL.D.,

Professor of Medicine in the University of Glasgow.

(*Continued from page* 6.)

I HAVE in the preceding observations treated first of peritonitis having a pelvic origin, because that variety is above all others important and instructive, not only in respect of its frequent occurrence in the female after parturition, but in respect of the lessons which it reads to us about peritonæal affections in general. You have learned accordingly, from the case of M. T., that even the most general, diffuse, and rapidly fatal form of peritonitis may have its origin in a disease set up in the pelvis perhaps years before, local, circumscribed by adhesions, and not even at the *post-mortem* examination revealing distinctly the mode of its extension from the organs first affected to the general peritonæal cavity. This form of fatal accident is much more likely to escape a thorough diagnosis, or to be erroneously judged, during life, in a virgin than in a married woman, because the former is more ignorant of the symptoms of intra-pelvic disease, and more likely to be reticent about them than the latter. But the interesting case of Mrs. McM. further discloses the fact that a married woman, having ample experience of the usual incidents of pregnancy and child-bearing, and with no possible motive for undue reticence, intelligent, moreover, and apparently giving a clear account of her own case, may suffer for several weeks from rather acute and widely diffused peritonitis without once adverting to its probably pelvic origin, although the uterus is then found firmly fixed in the pelvis by some form of morbid material impacted in Douglas's space; perhaps a hæmatocele, or other form of disease that might equally have happened in the case of an unmarried woman. Taken in connection with the case of M. T., therefore, this experience is surely very valuable and remarkable, and what it teaches us is, that in no case of peritonitis in the female, if otherwise unexplained, are we justified in omitting to explore this possible source of its origin; no, not even if it should appear that some other disease, say of kidney, liver, or lung, remote from the pelvis, has actually been present; for even then we may be entirely misled as to the cause of the peritonitis. I remember a case long ago which was under the care of more than one experienced gynæcologist, and as the parties are now all dead, there can be no injury done to any one by referring to it for your instruction. The patient, a lady in a very good social position, was supposed to have had pneumonia, and died, according to repute, of the pul-

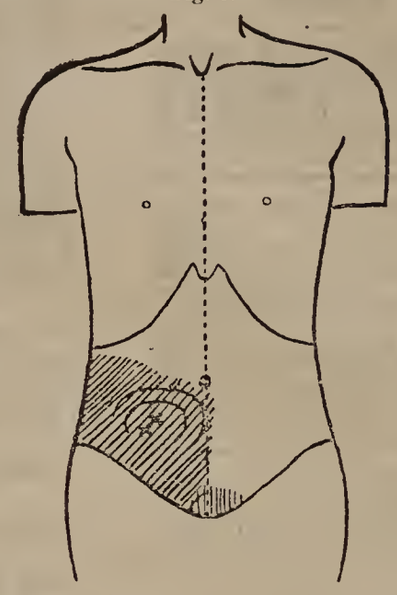
[1] Summer Clinical Course in the Western Infirmary, Glasgow, May to July, 1884.

monary affection ; but she also had what proved to be a tubercular and adhesive peritonitis. At the *post-mortem* examination the latter disease attracted fully more attention than that of the lung, inasmuch as it had been very partially, if at all, recognised during life. The peritonitis was general and diffuse, although perhaps with more matting of the intestines in the lower part of the abdomen than elsewhere. Under these circumstances I thought it worth while to pass my finger into the vagina, and felt something hard and abnormal, which presently proved to be a stem pessary, completely imbedded in the vaginal and uterine tissues, and encrusted all over with metallic rust and salts, thus showing that its very existence had been forgotten, probably for years, both by the patient herself, and by one of the gentlemen then present, who had, in the first instance, directed the wearing of it ! The stem of the pessary had nearly perforated the fundus of the womb, and the whole aspect of the parts made it only too probable that the long-continued pelvic irritation, proceeding from this very tangible cause, had broken up the general health of this woman, and had led both to the peritonæal and the pulmonary disease.[2] This, and the cases of M. T., and of Mrs. McM., further show, I think, that you cannot absolutely infer from the wide diffusion and absence of localisation of the physical signs of peritonitis, that it is *not*, in a particular case under observation, of pelvic origin ; although, as other and more frequent instances show, there is usually a distinct enough suggestion derived from the physical signs in the abdomen, of the pelvic origin of pelvic peritonitis ; the abdominal changes being more or less similar to those shown in our second figure. These things being premised, we may now proceed to study some other kinds of peritonæal inflammation in the light that is thrown upon them by the preceding remarks.

The experience of the last few days has brought under our notice, in the male ward, a case that may very well become the text for a few clinical observations in this connection. Pelvic peritonitis, or even peritonitis originating in connection with disease of the pelvic organs in the male, is rare ; arising, as a rule, only from deep and widely diffused septic inflammations in the neighbourhood of the genito-urinary tract ; or from cancerous or other ulcerations in the rectum or bladder, causing widespread destruction of tissue. But peritonitis of the lower abdomen in the male is by no means rare ; and it arises under conditions which cannot always be exactly defined by clinical observation, but which connect it, more or less closely, with one or other iliac fossa ; more frequently with the right than the left. In the present instance it is the right iliac region which is chiefly affected ; and on this account I have provisionally called the case one of *perityphlitis* ; although it must be admitted at once that the evidence of direct connection of the lesion with the *caput cæcum*, which would be necessary to entitle the disease very strictly to this denomination, is not conclusive. In this respect, however, the case resembles many others which you must expect to meet with in practice.

H. F., aged 16, a clerk, was admitted to the Western Infirmary on June 30th, 1884, with symptoms very evidently of an acute abdominal affection, originating about three weeks before admission. He began to suffer from pain just before retiring to bed ; which became much worse during the night, and soon afterwards vomiting set in, and continued pretty severe and constant during the earlier part of his illness, being scarcely, if at all, relieved at the time of his admission. Constipation had existed, more or less, throughout, but moderate in degree, and always easily relieved by mild laxative medicine, which, when administered to him on several occasions before admission, acted without any perceptible increase of pain. His statements as to the original seat of the pain correspond, in general, with the area indicated by the shading in this diagram (Fig. 3), which defines the full extent of the relatively

Fig. 3.



dull percussion, and also of a certain increased resistance and sense of something abnormal to palpation, as mapped out in your presence on 4th July. It seems probable, indeed, that the pain and tenderness may have been greater, if anything, within the area marked out by the ‡ than even in the iliac fossa, inasmuch as we found a rather more distinctly definable prominence there than elsewhere ; and there, also, two leeches had been applied before admission, but not until June 25th. The very detailed record we have of the case permits me to state, in brief, that no trace of any blow, hurt, or strain, and no history of any chronic disease, or of any ulceration of the bowels, in particular, no suspicion of enteric fever, or of tubercular disease, could be made out as having immediately preceded the acute symptoms just described ; nor was the patient aware of having swallowed anything likely to prove obstructive or indigestible. There was a degree of slowness in micturition, but otherwise no evidence of implication of the pelvis or pelvic organs in the inflammatory exudation, which, on the whole, seemed to have attained its height either before, or about the period of, admission ; although the vomiting, even several days thereafter, could scarcely be said to have at all yielded to the treatment employed. The persistence of this one symptom, however, and of moderate constipation along with it, was less alarming than it might otherwise have been, because the vomited matters were always merely watery and bilious, and the stools, whether spontaneously voided, or procured by injections (for we purposely avoided giving laxatives by the mouth) were perfectly devoid of any abnormal character. It was clear, therefore, that, whatever the local cause of the peritonitis, it was not of the nature of a mechanical obstruction or internal strangulation. I should add that there had been no rigors at any time, either before or after admission, and that the temperatures, just reaching 101° Fahr. on July 5th, rapidly subsided, and became normal, or even subnormal; the pulse, however, keeping up a rate of 112–16, even after the subsidence of the temperatures. It was reasonable to infer from these facts the absence of any considerable deep suppuration, or source of septic infection. As re-

[2] I had a drawing made of the more obvious facts at the time, and perhaps it may be still in some one's gynæcological collection ; for I have it not, having parted with it to the eminent gynæcologist here referred to.

gards this last point, however, I told you that my mind was by no means quite at ease; for although the tongue was evidently cleaning, there was a peculiar odour of the breath, almost indescribable, but still suggestive of possible blood-poisoning; and even while the local signs and the fever were evidently yielding, the emaciation and the vomiting appeared to me rather worse than at first, on July 11th, after twelve days of careful watching and treatment, both local and general.

These slight presentiments of evil were more than verified on July 15th. It was then noted that "notwithstanding the normal and subnormal temperatures from July 6th onwards, and the absence of any new physical signs, vomiting has been persistent, and he has been quite unable to take nourishment, emaciation also making rapid progress, so much so as to give rise to the *facies Hippocratica* in a considerable degree. The bowels, so far from being confined, have been for the last three days very loose, with watery evacuations. Thirst considerable; pulse quite regular, not very small, 120 or more. Tongue, with the exception of a few aphthous patches, is perfectly clean. There is just a possible suggestion of superficial fluctuation over what was the most prominent part of the swelling, but it is not so well-defined as to lead to any practical conclusion." From this time it was evident to me that this man was dying, and he succumbed, in fact, within twenty-four hours from the date of this report, with vomiting and purging continued up to the last, in spite of all the usual remedies diligently employed. A *post-mortem* examination was refused, to our great disappointment.

Now here is a case which is incomplete, pathologically speaking, because we are necessarily debarred from knowing exactly what was the state of the peritonæum and the viscera affected; and yet it will stand for a type of not a few others, and all the more so on this account. For it is simply a matter of fact that cases of this kind are not uncommon, and that the majority, I think the great majority, of them end not, as in this case, fatally, but in recovery. When they end in recovery we are, of course, often in the same difficulty as in this case, of exactly defining the pathological conditious under which the lesion has arisen. From my previous experience I do not hesitate to say that I had good hopes (although with misgivings freely expressed) of the recovery of this man up to a fortnight after his admission. But when the case was obviously tending to the worse, and especially when diarrhœa set in, and the vomiting persisted with a rising rate of pulse-frequency (though with a falling or normal temperature) and a haggard expression of countenance, I knew that the end could be not far off; and yet the man was not dying strictly of the peritonitis, nor of any obvious extension of the local lesion, but of something else. I believe it was septic poisoning; but, of course, I cannot prove this. And, speculating as to the probable cause of the septic poisoning, I believe there was ulceration somewhere of, or into, the intestinal canal, and that the peritonitis was, accordingly, a secondary phenomenon in this case, just as it is in the cases of pelvic origin to which we have already adverted.

When we turn now to the records of other fatal cases for instruction, we are obliged to go outside my own personal experience, so far as the Western Infirmary is concerned; for, although during the ten years it has been open I have had a number of cases more or less resembling this one, and yet ending in recovery, this is the only fatal case of perityphlitis, or of anything resembling it, that I have had during the above period.[3] There have been, however, four cases recorded in Dr. Coats's Pathological Register, of which two were specimens sent in from without, and derived from private practice. There remain only two cases, therefore, as representing the mortality of this hospital of more than 300 beds, from this kind of localised peritonitis, in ten years; of course there may have been one or two others not submitted to *post-mortem* examination. But taking the whole of these four recorded cases as the basis of our instruction, I find that in three of them there was ulceration of the vermiform appendix of the cæcum, and in each one of these three there was a small concretion of impacted fæcal matter at the distal end, which in one case was partially separated by ulceration from the main body of the appendix. In this case (No. 920) there were adhesions, with thick creamy pus confined in them, involving so many coils of intestines as to form almost a general peritonitis, but with much greater firmness of adhesion in the pelvis and right iliac regions than elsewhere. The whole duration of the illness had been six weeks; and the symptoms, speaking generally, were very like those of our patient as just described. In another case (No. 329) there was also general peritonitis; the intestines being glued together with soft lymph, especially in the lower part; but the source of the whole inflammation was a concretion the size of a date-stone, composed of impacted fæcal matter, and of the consistence of firm clay, at the distal end of the appendix vermiformis. In the third case (No. 415) there was a somewhat fungating ulcer of the appendix, with a concretion the size of an orange-pip, the appendix being (as in the last case) doubled and curved round upon itself and adherent to the cæcum; and from this a large collection of matter extended as far as the spleen. The abscess, however, had been circumscribed, and instead of proving fatal through general acute peritonitis, the pus had made its way back into the cæcum by several large abnormal openings clearly from without inwards, and with considerable sloughing of the wall of the bowel. In the fourth case (No. 85), in which alone there was no indication of disease originating from the appendix vermiformis, there was a large sac, communicating with the cæcum, and lying posterior to it; also attached to the pelvic organs. The exact connections of this sac were difficult to make out; but the ovaries (and I presume also the uterus) were found to be intact.

These four cases exemplify very fairly the general experience of pathological authorities, showing that in a very considerable proportion of *fatal* cases of inflammatory lesions in the ilio-cæcal region the *processus vermiformis* is in some way or other the source of the inflammation. In a minority there is inflammation of the cellular tissue lying chiefly behind the cæcum and ascending colon; and in such cases the peritonæum may escape implication, the abscess opening directly into the cæcum. And as in the case of the uterine organs the names *perimetritis* and *parametritis* have been devised to indicate the two modes of spreading of the inflammatory action referred to, so here the words *perityphlitis* and *paratyphlitis* have been employed; the former, however, embracing by far the greater number of cases, and being accordingly much the more familiar term in works on the subject. There is, moreover, a certain number of cases in which, though the inflammatory processes extend to the neighbourhood of the cæcum, they do not originate there; as where a pelvic abscess (parametritis) burrows upwards along the sheath of the psoas and iliacus muscles, or where a spinal or perinephric abscess burrows downwards along the same sheath, and may end in forming a communication with the bowel, or by opening in the groin. In these cases the peritonæum usually remains exempt.

Now, in the cases which recover (and these, as I have said, are the large majority) it is often not possible to make an exact diagnosis of the seat of the primary

[3] One other fatal case occurred in private practice. I was in attendance, along with Dr. Fergus, on a well-known shipbuilder, a powerful and very healthy man, who had never known serious illness before, but who died in a few weeks from gangrenous perityphlitis, in the early part of the present year.

lesion, and therefore it is vain to attempt to classify them as above ; but in many or most of them the local peritonitis, extending from the right iliac fossa upwards and inwards, is the most prominent fact, and the name *perityphlitis* is applied without a too curious inquiry into the unknown origin of the lesion. The evidences of the inflammation are the pain, superficial or deep ; tenderness on pressure, increased resistance, swelling, and dulness on percussion in the right iliac fossa ; fever, often with repeated shiverings and usually of a remittent type, which may go on, in protracted cases, into a kind of hectic ; the bowels being more often than not constipated, but occasionally with intervals of diarrhœa. Vomiting is by no means a constant feature of such cases, but is sometimes pretty obstinate. Indeed, I have known the vomiting and constipation together such as to raise serious questions as to the existence of a mechanical obstruction or invagination of the bowel ; but usually it is not so. In well marked cases, the dense semi-solid feeling of impaction extends quite down to the pelvis, in others towards the middle line and sometimes even above the umbilicus ; and, in the female sex, it may be only after careful examination of the pelvic organs that such cases can be distinguished from peritonitis of pelvic origin. Occasionally, and especially when it is inexpedient to make such examination owing to the patient being unmarried, or to the rapid recovery, it remains a doubtful question to the last. I have seen several such cases in female children who all made good recoveries ; and although these cases passed for perityphlitis, I am by no means sure of the pathology of them even now.

The most important clinical fact, however, to keep in view in dealing with such cases, is that a large proportion of them do, in fact, recover more or less completely, and after a longer or shorter period of careful management. This favourable prognosis is not commonly set forth, at all events so as to have impressed my own mind, in the various monographs on typhlitis and perityphlitis ; perhaps owing to the fatal cases, and those submitted to *post-mortem* examination, being chiefly accumulated in medical literature, and thus becoming unduly prominent. In one very admirable memoir, however, I find the view now presented fully more strongly asserted than I should have been disposed to put it, even apart from the evidence in the cases above noticed. "I believe," writes the late Dr. Hilton Fagge, "that even when acute peritonitis is set up by ulceration of the cæcal appendix, the disease, if properly treated, is infinitely less dangerous than is supposed. I have never myself seen a case of this kind terminate in death when its nature was correctly diagnosed, and when no purgatives nor enemata were allowed to be given. Nor of late years have any fatal cases occurred in the hospital (Guy's) except a few cases in which death occurred very shortly after admission. I have, therefore, been accustomed to give a favourable, though a guarded, prognosis in cases of typhlitis, even when symptoms of diffused peritonitis are present. It may, of course, be said that the very fact that one can make an exact diagnosis proves that the disease is not running on to a fatal termination within the first few hours, and that the signs of the general inflammation do not preponderate very greatly over those of the local mischief, and I am ready to admit that there may be cases of sloughing of the appendix which are necessarily fatal. But, as I have shown, the differences in cases of typhlitis appear to be differences of degree, and not at all of kind ; and I believe I am justified in saying that when this disease is skilfully treated it scarcely ever terminates otherwise than in the recovery of the patient."[4]

Dr. Fagge further argues that there is no good reason to suppose (as has been supposed) that such cases, when they end in recovery, "differ essentially from cases of perforation of the appendix," which he regards as "really always the starting-point of the inflammation" (p. 214). He alludes to three cases in which it was pathologically determined that perforation was the cause of an attack which had virtually ended in recovery, when either a new attack of perityphlitis, or an intercurrent disease, attacked and carried off the patient. The most important of these cases is the following :—"A patient suffering from chronic pleurisy was attacked with pain in the right iliac fossa and the other symptoms which I have just mentioned ; a firm tumour, dull on percussion, could be felt in the right iliac fossa. Under careful management the abdominal disease subsided, but pneumothorax occurred, and of this he died a few days afterwards. The cæcum was closely adherent, a small collection of purulent matter surrounded the vermiform appendix. This was perforated at its extremity, and outside it lay a small mass of hardened fæces."

I have already conceded that it is often impossible, clinically (in cases which end in recovery), to be sure of the exact seat and nature of the original lesion ; and to this extent I am disposed to think that the weighty and striking sentences above quoted from a great master of clinical and pathological investigation recently removed from us, may require some qualification. But the words of a man like Hilton Fagge must be taken as implying not only strong conviction, but conviction founded on an amount of closely observed fact which is perhaps not fully brought out in the details of the memoir itself. There are many circumstances tending to the belief that peritonitis even from perforation of the small intestine is not so absolutely desperate a case as it has been frequently represented ; and we have already seen that peritonitis of considerable severity and diffusion, arising from pelvic causes, admits of resolution, in many instances, with a completeness and rapidity that it is not easy, pathologically, to explain. The vermiform appendix is placed so as to offer the most favourable conditions possible for the isolation and limitation of the results of an ulcerative lesion, or even of a perforation ; but it is not necessary to suppose that in most, or all, of these cases actual perforation occurs, if we only accept the idea that an ulcerative or other lesion *tending* to perforation is usually forestalled, as it were, by reparative processes which may often tend to prevent the threatened fatal rupture. In such processes adhesive peritonitis, I believe, plays a principal part, and it is only a question of degree whether the extension and the character of the peritonitis are such as accurately to fulfil this, its conservative work in the organism, or such as to become more or less of a disease and a danger *per se*. At all events, there seems no escape from the conclusion that in some cases, at least (such as the one above quoted), even perforation of the vermiform appendix may be followed, or accompanied, by what *nearly* amounts to a complete recovery, through adhesion of it to the surrounding parts.

Dr. Fagge further points out that "typhlitis often recurs again and again at intervals of a few weeks. It is also exceedingly apt to relapse during convalescence if the patient is allowed to commit any indiscretion." This statement I can fully confirm, and the importance

[4] "Guy's Hospital Reports," 3rd series, vol. xx., 1875, p. 216. "Observations on some points connected with the Diseases of the Liver and of the Peritonæum." By C. Hilton Fagge, M.D. It will be observed that Dr. Fagge employs the term "typhlitis" as the more generic one, in preference to peri-typhlitis, which, he says, "ought to be reserved for cases in which the inflammation extends especially to the connective tissue, outside the back of the cæcum. But it is commonly used rather vaguely, perhaps with the unacknowledged feeling that it has a wider signification than typhlitis, meaning that the seat of the disease is about, or in the neighbourhood of, the cæcum." But this is not in accordance with analogy of peri- and para- metritis.

of it, from a practical point of view, in connection with the preceding observations, need not be more particularly pointed out. The treatment of all such cases should be conducted on the same principles (*mutatis mutandis*) as in peritonitis of pelvic origin. Rest of the parts, absolute if possible, is the main indication of treatment, and this, in the case of the cæcum or vermiform appendix, implies, of course, abstinence from the use of purgatives, and not unfrequently, also, the administration of opium, and the limitation of the diet. Enemata, if employed at all, should be only such as to empty the rectum; but, on the principle that a lower bowel loaded with fæces is more open to strain than one cleared out by warm water in moderate quantity, I am not sure that I am prepared to accept without some qualification Dr. Fagge's conclusion that enemata, as well as purgatives, are to be entirely proscribed as a first condition of safety. It is perhaps necessary, however, to protest against Eichhorst's special recommendation of *Abführmittel*, *e.g.*, large cold water enemata three or four times a day in what may chance to be regarded as *typhlitis stercoralis*.[5] I cannot say that I have had such experience as would induce me to pronounce this an entirely distinct form of disease, and if, on the other hand, the constipation, which often attends a case of inflammatory swelling in the iliac fossa, is not to be taken as the cause, but as the result of the inflammation, usually, if not always, associated with ulceration of the vermiform appendix, a treatment founded on mere emptying the lower bowel, mechanically or otherwise, cannot be expected to be successful. A liquid diet, at first exclusively employed, and afterwards only a very gradual introduction of the most completely digestible solid foods, will be rightly held to be imperative, owing to the same very obvious and paramount necessity of securing rest, as far as possible, to the whole intestinal tract, and especially to the cæcum. In cases where vomiting is obstinate and long-continued, I should not be restrained from clearing the rectum of its contents so far as to allow of nourishment and stimulants being given *per anum;* and morphia might in such case be used in considerable doses hypodermically. The patient should be rigidly kept in bed and absolutely in the recumbent posture, till the tenderness and swelling are nearly if not quite gone; and, holding in view the risk of relapses, it is hardly possible to insist too much upon great care in this respect. The only local treatment I am disposed to recommend is the use of fomentations (medicated or not), poultices (if not too heavy); sometimes, if there is much distension, or if the fever is very high, the local application of cold for short periods by iced cloths; and in more chronic cases the painting of iodine tincture, or liniament. Eichhorst mentions in addition the mercurial ointment, and the vaseline of iodoform; of these I have no experience.

(*To be continued.*)

ABERDEEN—DEATH OF DR. JOHN WOOD.—Dr. John Wood, who for fifty years was a medical practitioner in Aberdeen, died in Aberdeen on Thursday, September 4th, in his 85th year. The deceased, who was a native of Fetteresso, studied at Aberdeen University in Arts. Subsequently he went to Edinburgh, and completed his medical education there, being admitted a member of the Royal College of Surgeons, London, in 1828.

[5] "Real-Encyclopädie der Gesammten Heilkunde." Art. *Typhlitis*, p. 153.—"Man wird selbstverständlich bei *Typhl. stercoralis* den Koth möglichst schnell nach unten zu entfernen suchen, um einer Ausbreitung der Entzündung vorzubeugen, und bestehender Entzündung binnen kurzester Frist zu heben."

MEMORANDUM ON THE "COMMA-SHAPED BACILLUS," ALLEGED TO BE THE CAUSE OF CHOLERA.[1]

By Surgeon-Major TIMOTHY RICHARDS LEWIS, M.B.
Assistant Professor of Pathology, Army Medical School.

WITH a view of studying the phase which the cholera question has now entered upon, in consequence of the publication of the results of the investigations of the German Cholera Commission in Egypt and India, I availed myself of the opportunity which the present vacation at the Army Medical School afforded of proceeding to Marseilles, where the disease has been prevalent since the end of June. Sir Joseph Fayrer was so kind as to enlist for me the valuable assistance of Dr. Le Roy de Méricourt, Médicin en Chef of the French Navy, who, in various ways, did his utmost to further my wishes. Dr. Marroin, the Chief of the Sanitary Department in Marseilles, was so good as to introduce me to the authorities of the Pharo Hospital, where the cholera cases are treated, and where, with the permission of the Principal Medical Officer, Dr. Trastour, I was able to renew my acquaintance with the disease, and to collect material for studying afresh the microscopy of the intestinal discharges.

Before, however, referring to the results of my own observations, it will be convenient to epitomise the published history of the German Commission; to point out the salient features of the results of their investigations in Egypt and in India; and to make a few brief comments on such of the circumstances and conclusions as appear to call for notice. Shortly after the arrival of the Commission in Egypt, Dr. Robert Koch reported, on behalf of himself and his colleagues, that no special micro-parasites had been discovered in the blood, the lungs, the spleen, the kidneys, or in the liver in cholera, but that the intestinal mucous membrane was permeated by certain bacilli which nearly resembled in size and form the bacilli found in glanders. As is well known these bacilli are straight, and are, in fact, uncommonly like the ordinary microphytes associated with decay. Dr. Koch also states in connection with this subject that he had, previous to proceeding to Egypt, found similar bacilli in the intestinal mucous membrane of four natives of India, but that he had then looked upon them as due to merely *post-mortem* changes. When he came to Egypt, however, and found these same bacilli in the intestines of perfectly fresh cases, he felt that an important link was furnished towards establishing the identity of the disease in Egypt with Indian cholera.

It is highly probable that the specimens from India which Dr. Koch had examined were those which were sent, at the request of the Imperial Health Department in Berlin, by the Sanitary Commissioner with the Government of India. These consisted of numerous dry cover-glass specimens of blood which I had collected from several cholera patients, and of portions of the viscera of four natives who had died of the disease. All these were examined by me before they were despatched, and portions of each were reserved for further study. I had heard nothing further of them, but the publication of the remarks above referred to in Dr. Koch's Report of September the 17th, 1883, from Alexandria, recalled them to my mind, and I was glad to infer that my own negative results had been confirmed in Berlin. As already observed, no importance had been originally attached to the organisms which were present in the intestinal mucosa. During the last six months I have examined hundreds of

[1] Report to the Director General of the Army Medical Department.

stained microtome-sections of these four, and of other specimens of cholera intestines in my possession, and have found that when the mucosa is infiltrated with microphytes at all they are either micrococci, bacteria, or long-oval, and straight bacilli.

In the report of the Commission, dated Calcutta, February the 2nd, 1884, Dr. Koch, however, announces for the first time that the specific bacillus of cholera is curved or comma-shaped, and not straight, so that apparently it had become necessary to abandon the microbe first fixed upon. Assuming that the four specimens from natives of India which had been examined by Dr. Koch were those which passed through my hands, the evidence they furnish seems to be in accordance with this view, as in not one of them have I been able to detect any invasion by unmistakable "commas," though at least one of the specimens may fairly be characterised as abundantly infiltrated (in the manner described by Dr. Koch) by straight (and as I prefer to call them) putrefactive bacilli. Judging from my own experience, therefore, any extensive infiltration of the intestinal mucous membrane in cholera by comma-shaped bacilli must be exceedingly rare ; and this, I believe, is likewise the experience of the members of the late French Cholera Commission, MM. Straus, Roux, and Nocard, whose acquaintance I had the pleasure of making at M. Pasteur's laboratory on my return through Paris.

Whilst at Marseilles I had, as already stated, opportunities of observing numerous specimens of choleraic excreta, and found that comma-shaped bacilli were, more or less conspicuously, present in all of them, though in some instances more than one slide had to be examined before any could be satisfactorily detected. It may also be mentioned that some of the discharges in which these organisms were present manifested an acid reaction when tested with litmus paper. As Dr. Koch himself remarks, the proportion which the comma-shaped bacilli bear to other organisms in the dejecta varies greatly. In some instances only one or two specimens are to be found in the field of the microscope, while in others they are very numerous, and Drs. Nicati and Rietsch (who are at present engaged in the study of the disease at Marseilles) were so kind as to show me a specimen of choleraic material they had obtained from the small intestine, in which the "commas" existed almost to the exclusion of all other organisms. This is a condition, however, which, I understand, is exceedingly rare. On the other hand, I have seen samples of choleraic dejecta in which totally different organisms prevailed to a like exclusion of others ; and in one instance at Marseilles spirilla of various sizes and forms were the most conspicuous of the micro-organisms present. So far, therefore, the selection of the comma-shaped bacilli as the *materies morbi* of cholera appears to be entirely arbitrary.

Dr. Koch and his colleagues have adduced no evidence to show that they are more pernicious than any other microbe ; indeed, as a matter of fact, the sole argument of any weight which has been brought forward in favour of the comma-shaped bacillus being the cause of cholera, is the circumstance that it is more or less prevalent in every case of the disease, and that the German Commission had not succeeded in finding it in any other. With regard to the suggestion that the cholera process may in some way favour the growth of these bacilli, and that these are not necessarily the cause of the disease, Dr. Koch remarks, in the report from Calcutta above cited, that such a view is untenable, inasmuch as it would have to be assumed "that the alimentary canal of a person stricken with cholera must have already contained these particular bacteria ; and seeing that they have invariably been found in a comparatively large number of cases of the disease both in Egypt and India—two wholly separate countries—it would be necessary to assume, further, that every individual must harbour them in his system, This, however, cannot be the case, because, as already stated, the comma-like bacilli are never found except in cases of cholera."

Had Dr. Koch and his colleagues submitted the secretions of the mouth and fauces—the very commencement of the alimentary canal—to a careful microscopic examination of the same kind as that to which they have submitted the alvine discharges, I feel persuaded that such a sentence as the foregoing would not have been written seeing that comma-like bacilli, identical in size, form, and in their reaction with aniline dyes, with those found in choleraic dejecta, are ordinarily present in the mouth of perfectly healthy persons.

[Since this memorandum was submitted, I have observed that Dr. Koch states, in his recent Address on the subject, that after his return to Berlin he had examined, amongst other things, the secretions of the mouth for comma-shaped bacilli, but had found none ; and, further, that he had consulted persons of much experience in bacterial researches as to whether they had ever seen such organisms and was told that they had not. It may be of assistance to future observers if I give the dimensions of half-a-dozen comma-shaped bacilli as found in each of the following : (*a*) In the alvine discharges of three cholera-affected persons ; (*b*) in the small intestine of a person who had died of the disease and in whom they existed almost to the exclusion of other organisms ; (*c*) in a cultivation of them in agar-agar jelly ; and (*d*) in the secretions of the mouth of three healthy persons, ranging from four to fifty years of age. The measurements were made (with the valuable assistance of Mr. Arthur E. Brown, B.Sc., Lond.) under a magnifying power of 1,000 diameters—a Powell and Lealand's $\frac{1}{16}$th of an inch oil-immersion lens, with a wide angle condenser, being used.]

Length and Width (in Micro-Millimetres)* of Comma-Shaped Bacilli.

Number.	In Choleraic Material.				
	Alvine discharges.			Intestinal Contents (Autopsy).	Cultivation in Agar-agar Jelly.
	I.	II.	III.		
	μ μ	μ μ	μ μ	μ μ	μ μ
1	2·4×0·40	2·0×0·60	1·1×0·25	2·0×0·40	1·6×0·40
2	2·6×0·40	2·5×0·65	1·8×0·35	1·2×0·40	1·4×0·60
3	2·0×0·50	3·2×0·70	2·0×0·60	1·5×0·45	1·8×0·50
4	2·2×0·45	3·0×0·70	3·0×0·70	1·3×0·60	2·0×0·50
5	2·8×0·35†	2·5×0·60	2·2×0·50	2·1×0·50†	2·6×0·45†
6	1·5×0·35	2·0×0·50	1·6×0·40	1·2×0·50	1·1×0·35

Number.	In Secretions of the Mouth in Health.		
	I.	II.	III.
	μ μ	μ μ	μ μ
1	2·0×0·50	1·4×0·35	1·5×0·50
2	1·3×0·35	2·0×0·40	1·3×0·50
3	1·6×0·40	1·7×0·40	1·0×0·30
4	1·2×0·35†	1·3×0·45	1·2×0·40
5	2·2×0·65	2·1×0·50	2·7×0·50
6	2·0×0·40	2·8×0·40†	1·4×0·55

* One Micro-Millimetre (μ) = ·001 millimetre [= $\frac{1}{25000}$″].
† S-shaped Comma-bacilli.

There is no difficulty in putting this statement to the test; and to any one acquainted with the methods ordinarily adopted for staining and mounting fungal organisms of this character, no special directions need be given. The procedure followed by me to demonstrate these "commas" in the saliva is precisely that adopted for finding them in the dejections. A little saliva should be placed on a cover-glass (preferably in the morning before the teeth are brushed) and allowed to dry thoroughly, either spontaneously or aided by a gentle heat. The dry film thus obtained should be floated for a minute or two with one or other of the ordinary solutions of aniline dyes adopted for such purposes, such, for example, as fuchsine, gentian-violet, or methylene blue. The cover should then be gently rinsed with distilled water, and the film re-dried thoroughly. The preparation may now be mounted in dammar varnish or Canada balsam dissolved in benzol, and should be examined under a $\frac{1}{12}$-th or $\frac{1}{16}$-th of an inch oil-immersion lens.

As in choleraic discharges so in the saliva the number of comma-shaped bacilli will be found to vary greatly in different persons, and at different times in the same person. Sometimes only one or two "commas" will be seen in the field, at others a dozen may be counted, and, occasionally, little colony-groups of them may be found scattered here and there throughout the slide.

It may be remarked in passing, and as bearing upon what has been already said regarding the general absence of comma-shaped bacteria from the intestinal mucosa itself, that they do not appear to manifest any special tendency for attacking the decaying epithelial scales of the mouth, but that, on the contrary, they are for the most part found free in the fluid, the epithelium being studded with other bacterial forms.

Persons who have not been in the habit of examining dried saliva-films will probably be surprised at the number and variety of the organisms which are, more or less, constantly to be found in the mouth; and especially at the number of spirilla with which the fluid is generally crowded. The alvine discharges in cholera sometimes swarm with precisely similar spiral organisms, and, indeed, as has long been known, the fluid exuded into the intestines in this disease is peculiarly suitable for the growth of these and allied microbes. But so far as my own experience—dating from 1869—of the microscopic examination of such a fluid goes, all the microphytes ordinarily found in it are likewise to be found, to a greater or less extent, in the secretions of the mouth and fauces of unaffected persons. And with reference to the comma-like bacilli found in cholera, to which such virulent properties have been ascribed, I shall continue to regard them as identical in their nature with those ordinarily present in the saliva until it has been clearly demonstrated that they are physiologically different.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.
President of the Epidemiological Society of London.

(Continued from page 285.)

Cancer.

Forty years ago, Mr. Thomas Wilkinson King drew the following results from some 1,000 *post-mortem* examinations performed at Guy's Hospital.[14] "Of all females who die about 44 years of age, nearly one-half have cancers; of males one-eighth. Of males above 65, one-fifth of all who die are cancerous."

[14] *London Medical Gazette*, for 1845, p. 597.

Only too many cases of malignant disease present themselves in India, especially in the large city hospitals; but, starting with the above facts, we must, I think, consider that the diseases of this class are by no means remarkably prevalent in India.

It is true that the great majority of soldiers' wives in India have not reached the cancer age. Still there are many middle-aged women among them. In 1881 there was only one case of cancer in a strength of 3,741.

Although I have known it occur in several cases, true *Scirrhus* is undoubtedly rare in Lower Bengal. It is not, in India, the scourge of Englishwomen as it is at home.

Preps. 263 to 274 in the Calcutta M. C. Museum, well illustrate scirrhus. There is a great deal of *Medullary Cancer*, especially among the young of the native poor. I have seen enormous growths, chiefly of the hæmatoid form, repeatedly.

Epithelial Cancer is, I believe, the form of malignant disease most prevalent in India, and is probably quite as common there as it is in England, attacking the conjunctiva, skin, lip, tongue, os uteri, penis, &c., in Europeans, Eurasians and natives. Two of my medical brother officers died from epithelioma of the tongue, a third and an officer's wife died from this disease attacking the glottis. I saw a very marked case of epithelioma of the penis in a pariah dog. The surgical report shows that, in the Madras General Hospital, there were fourteen operations for cancerous disease in 1882. Eight were cases of amputation of the penis for epithelial cancer. Five were for the removal of epitheliomata of the lower jaw, lower lip, tongue and submaxillary gland. In one case the cancer of the penis was encephaloid.

Dr. Elmslie gave[15] a very remarkable account of epithelioma as it occurs among the native Kashmiri poor at Sirinagar. Out of 5,080 dispensary patients no fewer than 30, or one in every 254 patients were found to have unmistakable epithelioma.[16]

The disease, as it occurs in that locality, shows a remarkable preference for the abdomen and inner aspects of the thighs. It invariably occupied these sites in the 30 patients. Dr. Elmslie attributed the disease to the universal employment, in cold weather, of the *kangri*, an earthenware pot usually covered with fine wicker-work, containing ignited charcoal, which is worn under a loose woollen gown in close proximity to the skin. Indoors or in the sitting posture, the *kangri* is placed between the thighs. He suggested that the heat of this earthen vessel might act as that of a short-stalked tobacco pipe does in causing epithelioma of the lower lip.

Surgeon-Major G. C. Ross has confirmed the above observations as regards the cause and prevalence of epithelioma in Kashmir.[17]

At pp. 558 and 566 of his "Clinical and Pathological Observations in India," Sir Joseph Fayrer has some valuable remarks upon epitheliomata as occurring in old burn cicatrices exposed to irritation.

[15] *Indian Medical Gazette*, vol. i, p. 325.

[16] Without questioning the fact that epithelioma is very prevalent in Sirinagar, I may allude to a point which has often come practically to my notice,—that in India, as elsewhere, a fair amount of success in even a few cases of operative surgery often gains us a local reputation which leads a majority of those similarly afflicted to come to us even from a considerable distance. Hence, we may fall into the error of supposing that the disease in question is more prevalent, especially in our locality, than it really is. Thus, in the time of Esdaile and his successors, the dispensary at Hooghly had, beyond all others in Lower Bengal, a reputation for the safe removal of scrotal tumours. I often said, when a passed student told me that he had been appointed to a dispensary, "Do not lose a month in attracting, by every practicable honest means, those who are known to all the town as having ugly but benign wens and fatty tumours. The successful removal of a few of these will establish your reputation more securely than years of undemonstrative medical practice will do."

[17] *Indian Medical Gazette*, October, 1878.

Preps. 251 to 252 in the C. M. well illustrate epithelioma in Europeans and natives.

As in England, *Melanotic Cancer* is an ordinary cause of death in Bengal among grey and white horses.

We can scarcely drive through Calcutta without seeing animals having the characteristic globular tumours beneath the skin.

We are told, in the account of Bangalore in the "Madras Medical Topographical Reports" (p. 70), that horses at that station are liable to "enlargement of the tail which becomes covered with large black tubercles constantly increasing in size and number; the tail becomes enormously enlarged, and, as the disease extends, the animal pines and dies. It appears to be of a melanotic character and, on dissection, a black secretion has been found in the lungs, liver, kidneys, and in other viscera; and, in one case, a melanotic spot was discovered in the heart." In India, as in England, this form of cancer is rare in human subjects. I saw what appeared to be the commencement of such deposit on the foot of a well-to-do East Indian. It has occurred in the eyeball,[18] and on the hand.[19]

Dr. Shortt removed one or two melanotic tumours from patients in Orissa.

Dr. D. Wilkie has recorded a case of carnification of the lung from the pressure of a melanotic cancerous liver. It occurred in a jockey, probably English, æt. 46. It is not said how long he had been in India.

Preparations 318 to 326 in the C. M. represent this form of cancer as occurring in man, and in the horse and cow.

Webb gives, at p. 1 of his "Pathologia Indica," the case of a native in whom there was melanosis of the lungs and heart. Here, as in the case of a woman whom I saw a few years ago in London, there was cough with expectoration of broken-down melanotic cancerous matter.

Colloid Cancer is represented in Ewart's Catalogue, Preparation 327. The growth affected the mesentery. Having seen a very marked case of colloid of the stomach at Guy's, I was on the look-out for this form of malignant disease in India, but never met with it in my own practice.

Fibrous Tumours (*vide* Diseases of the Uterus), and most other non-malignant growths are not rare in India, and are fairly illustrated in the Calcutta Medical College Museum.

I only saw two genuine cases of *Hodgkin's Disease* in a respectable European woman, in whom the progress of the malady was not at all active while she was under my care; and in a native gentleman of high rank, in whom it proved rapidly fatal. In August, 1880, Assistant-Surgeon Koilas Chandra Banerjea brought before the Calcutta Medical Society an elaborately but very imperfectly detailed case of a Mahomedan, æt 30, who died with an enormous amount of glandular disease (lymphadenoma) after about twenty-two months' suffering. It appears, although the report is very indefinite on this point, that a large aggregation of diseased mesenteric and other glands, matting together most of the upper abdominal viscera, had "caused erosion of the vertebræ."

Three preparations in the C. M., 242 to 244, illustrate *Vascular Tumours*.

Nævus.—Speaking of *Injuries to the Skull*, I have mentioned a case in which most extensive vascular nævi occupied nearly the whole of the scalp and the thickness of the calvarium in a Cookie girl. (See Diseases of the Skin.)

Molluscum fibrosum occasionally produces extreme deformity in natives. A by no means very unhealthy oldish man living near my college, had his body thickly covered by the characteristic pendulous tumours of all sizes up to that of a goose egg, and the growths on his head had produced such an extraordinary cowl-like elongation of the skin that it was widely pendulous, resembling in form the hanging portion of a cock's comb.

Dr. John Adam described and figured[20] the case of a Hindoo, of Jessore, the subject of molluscum. His face and limbs and body generally were studded over with small berry-like sessile elevations, and a tumour, in colour and texture not unlike the skin of a toad's back, arose from the integument surrounding the ear and, becoming very bulky, hung down over the neck in longitudinal folds to the middle of the pectoral muscle. The paper, which includes a report from a Hukeem, upon the native opinions regarding molluscum, should be consulted by those who are interested in this disease.

Mr. Brett reported and figured[21] the case of a native of Delhi whose body and limbs were covered with tumours of molluscum from the size of a pumpkin to that of a pea. Nine hundred and ten were counted. Mr. Brett removed one weighing about three pounds from the back. In June, 1880, Mr. O'Connell Raye exhibited at the Calcutta Medical Society a native woman, æt. 22, who was born with a small nodule on the inner and upper aspect of her left armpit. Gradually increasing and becoming pendulous, it weighed seven pounds when Dr. Raye removed it. The whole of her body was covered with small nodular growths. Her mother had similar growths all over her body. Dr. Raye observed that the condition was hereditary and congenital. He had seen a similar case operated on by Dr. Farrell, in Dublin. Dr. McLeod drew attention to several cases of a similar kind described by Dr. James Wise, late of Dacca, published in a compilation by Drs. Fox and Farquhar on certain skin and other diseases of India, &c. Several of Dr. Wise's cases, and one contributed by Dr. Bainbridge, of Dhalia, resembled very closely Dr. Raye's case. In three of Dr. Wise's nine cases the disease was hereditary.

Dr. Chatham Gray[22] had under his care a native boy of 12, covered with molluscum, in whom the eyelids were especially affected. One eye was lost, the other was almost disorganised.

Cheloid—Preparation 200 in our C. M. is "A keloid outgrowth about four inches long, two inches broad, and one inch thick, formed in the cicatrix of a burn. The contrast between the whole surface of the growth, and the small portion of integument which has been removed with it is very striking. It consists of fibro-cellular structure." At Chittagong a boy of 12 had the forearm drawn up by a burn cicatrix, the thick web of which was nearly a foot long and five inches deep. An extensive cheloid growth occupied the web midway, and was inclined to ulcerate. I removed a large triangular mass and straightened the limb.

A chapter, p. 552, of Fayrer's "Clinical and Pathological Observations in India," is devoted to a series of important cases of "cicatrices after burns treated by surgical operation."

I never saw a case of *Rodent Ulcer* in India. My colleague, Dr. William Palmer, tells me that, after I left, he treated three very well marked cases of this disease in the Medical College Hospital. The patients were native men, all over 40 years of age. The nose was principally involved, and, the disease not being extremely advanced, cicatrization was obtained by the use (under chloroform) of chloride of zinc.

In a report on the diseases of Kashmir,[23] Surgeon-

[18] "Indian Annals of Medical Science," No. 15, p. 272, case by Dr. R. Brown.

[19] Dr. H. Baillie's case, *Indian Medical Gazette*, vol. 1, p. 62; and "Ewart's Catalogue," Prep. 318.

[20] "Calcutta Medical and Physical Transactions," vol. i., p. 293.

[21] *Indian Journal of Medical and Physical Sciences*, vol. iv., p. 383, N.S.

[22] *Indian Medical Gazette*, August, 1878.

[23] *Indian Medical Gazette*, for October, 1878.

Major Ross says that *Lupus* is common there. One desperate operation was performed for its cure—dissecting off the whole cheek and integument over the malar bone of a boy—successfully. Some cases were treated by nitric acid.

I never happened to meet with a case of lupus, not of syphilitic origin, in that country either in the European or in the native. Among 7,125 dispensary cases treated in Calcutta, Dr. Chuckerbutty met with only one example of lupus, which may have been syphilitic. Among 1,920 cases of skin disease in natives which he treated in Calcutta, my friend Dr. William Palmer met with eight cases of lupus.[24] He draws a very clear distinction between the non-specific and syphilitic forms of lupus. He does not expressly define the character of these eight cases; but, in a recent communication, he tells me that, in his experience, the non-specific is by far the more frequent type of this disease in Bengal. If it be true that the non-specific disease is a form of struma, its rarity may be due to the great immunity from the external forms of scrofula of the vast majority of the natives of the plains of India.

A NEW INHALER: WITH REMARKS ON ANTISEPTIC INHALATION.

By J. WARD COUSINS, M.D. Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

The discovery of Koch's bacilli amid the morbid processes, which are now grouped together under the term of pulmonary phthisis, and the new theory grafted upon it—that micro-organisms are the essential elements in the development of tubercular disease—have certainly stimulated the revival of the old treatment by inhalation, and have stamped it with fresh value and importance. It is, however, a matter for pathological investigation to decipher what is the exact relation between these specific bacilli and the pneumonic changes which pass on to softening and excavation, and whether the organisms are to be regarded as the cause or the mere outcome of these necrotic processes. At present we are not warranted in assuming that phthisis is the product of a distinctive bacillus imbedded in the tissue of the lung, and we must wait for the results of future investigation and experiment. Still, the progress of research clearly points to the conclusion that phthisis, with its many variations, will soon be recognised as a specific disease, characterised by the formation of a new growth containing specific micro-organisms, which can be detected in the sputum during life, and in the structures invaded by the disease after death.

Now there is some subtle association between this modern theory and the fashionable treatment of inhalation, which appears almost to be anticipating its final demonstration. But it must be stripped of all speculative value, and the test of experience must be the real guide for its adoption. The notion that antiseptic vapours are weapons of destruction upon these mysterious organic forms may seem a hopeful creation of the imagination, but, certainly, there is not a fragment of evidence even to suggest the assumption that volatile antiseptics are killers of bacterial growth hidden in the substance of the lung. Moreover, it is not possible to conceive how either dry or moist vapours, in any form, possessing a low degree of volatility, whether administered by the aid of respirators or by immersion in the atmosphere of a chamber charged with the most powerful medicinal substances, can ever be sufficient in potentiality to arrest within the pulmonary tissue the development of the specific organisms which are found to be intimately associated with the existence of tubercle.

The recent revival of the old question as to the contagiousness of phthisis has also exercised an important influence in promoting the treatment by inhalation and has even succeeded in giving it a new direction. The possible communication of the disease by contagion of some sort has long been a matter of controversy, and many men of distinction have taken part in this ancient disputation, but at the present moment it is still surrounded by many difficulties, and it appears almost as far off as ever from a final settlement. The discovery of micro-organisms has produced a complete resuscitation of the old dispute, and has surrounded it with new and impressive issues.

Some regard the results obtained by the inoculation and artificial cultivation of the specific bacillus as strong evidence in favour of the doctrine, and their convictions on the matter induce them to advocate a special method of applying topical remedies to the air passages. The speculations concerning the existence of the bacillus in the phthisical breath, and the dissemination of its germs in the air mingled with the germs of universal distribution are far beyond the limits hitherto reached by scientific research. Yet, the mere conjecture that germs may find an entrance from without has certainly roused the ingenuity of some inventive minds, and suggested to them the grave necessity of intercepting them by a mechanical device at the very threshold. It is in this way too often that enthusiasm developes theory, and theory wields a directing force in the construction of methods of treatment which are utterly inconsistent with scientific truth, and even common experience.

Surely it is a fact beyond dispute that no kind of inhaling contrivance can defy the entrance of germs with the air of inspiration; at the same time no form of respirator can be persistently employed by the patient. In reality it is a mere fad to attempt to filter and sterilise the air, for there is not a particle of evidence to support the notion that such filtration can be essential to the successful application of inhalations in those individuals who are actually labouring under tubercular disease; and it is extremely improbable that any laborious endeavour to sterilise the air can help to check the growth of organisms which have already found a lodgment in the lung. Even admitting that it is possible by the intermittent application of a complex cover over the mouth and nose to reduce the number of infective particles which enter the body, and to isolate, in a measure, the patient from the invisible hosts around him; then, it clearly follows that this sort of device ought to be considered in the light of a protecting instrument for any individual threatened with pulmonary disease, who is unfortunately exposed by social circumstances to the danger of a polluted atmosphere by contact with others actually labouring under phthisis, and, therefore, the disseminators of an infective material, which is capable of impregnating the organs of any susceptible of its invasion.

On the other hand, I am not singular in holding the opinion that all efforts to filter the inspired air are theoretically unsound, and practically useless, and that the cumbrous instruments constructed with this intention often indirectly exercise a baneful influence on the surroundings of many who are daily endeavouring to protect their lungs with antiseptic inhalations. The constant use of a close inhaler fosters the common prejudice against fresh air and sufficient ventilation, and the treatment degenerates into a struggle between germs within and germs without, hopefully carried on by breathing through an uncomely mask, and by con-

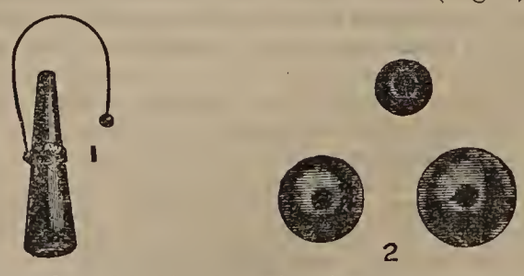
[24] "Rough Notes on the Common Forms of Skin Disease met with in Calcutta."

finement in a close and stuffy atmosphere. Depend upon it, every remedial agent employed in the management of chest disorders must be positively injurious to the patient whenever it distracts the attention from the common and hygienic measures which are so essential to the general improvement of the system, and the increase of the vital resistance of the whole organisation.

Now, in whatever light the speculations are regarded concerning the action of inhalations as destroyers of bacilli or as protectors against floating germs, it must be admitted that this treatment has made remarkable progress, and has also been practised with very great success. What, then, is the *modus operandi* of antiseptic inhalations in pulmonary affections? Surely the action of these remedies admits of a very simple explanation? They are valuable not only in the treatment of phthisis in all its forms, but they are fortunately equally applicable for many other chronic disorders of the chest, and their judicious administration is certainly followed by very considerable relief. Dr. Solomon Smith rightly observes (See *British Medical Journal*, February 23rd, 1884): "We are forced to believe that the benefits derived from the use of antiseptic inhalations are due to the infiltration of the lungs with antiseptic material, rather than to any action upon the floating germs." The vapours which are mingled with the inspired air penetrate deeply into the passages, and are there absorbed by the moisture of the respiratory surface, and thus, by direct application, they purify the air in the remote portions of the lungs, and cleanse the mucous membrane generally by preventing decomposition in the fluids, and stimulating more healthy secretion. In chronic bronchitis, bronchorrhœa, with dilated bronchi, and emphysematous affections the efficacy of the treatment is beyond dispute; for by assisting the discharge of the expectoration, and by delaying the septic changes which occur within it, they remarkably modify the disorder at the very seat of its activity. In phthisis these topical remedies have proved also powerful auxiliaries to general treatment. They check decomposition in the secretions, and aid in the evacuation of the infectious materials, which are the direct products of the disintegration of the pulmonary tissues, and which by the processes of absorption and diffusion often establish new centres of disease.

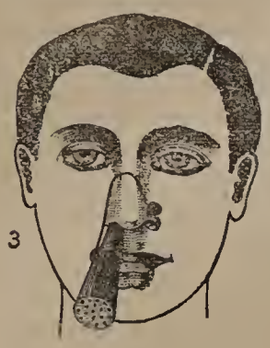
But apart altogether from any specific effect of the antiseptic vapours, it must be admitted that the act of continuous inhalation exerts a very salutary influence by stimulating full and repeated expansion of the lungs, and the forced activity of these organs is in itself an important factor of the treatment. The value of free inspiration, and the part it plays in the successful application of antiseptic inhalation has scarcely received the general recognition to which it is justly entitled. Many years ago the late Dr. Ramadge warmly advocated the use of an inflating tube for the simple purpose of expanding the lungs, and stimulating their functional activity by voluntary effort. In phthisis these organs are very imperfectly expanded. The sputa collecting in the passages obstructs the aërial movements, and some portion of the air only partially changed becomes imprisoned in the remote parts of the pulmonary tissue, and thus the healthy balance between inspiration and expiration is disturbed, the breathing becomes shallow, at the same time the gradual contraction and emaciation of the thoracic parietes are seriously accelerated. Now it appears to me that much of the success which has followed the introduction of antiseptic inhalation is due to persistent expansion of the lungs by forced inspiration; and certainly this novel and fashionable system corroborates the value of the mechanical method practised by Dr. Ramadge. His notions respecting the antagonism between emphysema and phthisis have now almost passed into oblivion, but his special treatment of utilising functional activity as an instrument for arresting the progress of tubercular disease is surely now receiving a remarkable acknowledgment in the revival of respirators and local medication. The new treatment is, in fact, a close repetition of the old mode of inflation with the addition of an antiseptic vapour to the inspired air, and the beneficial effect produced by its persistent employment can in a great part at least be fairly attributed to the expansion of the chest in full and forced inspiration; for this not only assists in maintaining the volume of the lungs, and in stimulating the activity of those portions of their structure still free from the elements of tubercle, but it also favours the circulation itself, and helps on the processes of local and general nutrition by which a vital resistance is developed, restraining the progress of the disorder and powerfully contributing towards its final arrest through the contraction and limitation of the local disease. The advocates of antiseptic inhalation are quite unanimous as to the necessity of employing it with great regularity and perseverance over a long period; but there is much diversity of opinion as to the method of application, and the form of instrument best adapted for the treatment. In a recent number (June 12th, 1883) of the *British Medical Journal*, Dr. Arthur Hassall refers to "the comparative inefficiency in diseases of the lungs of the methods of inhalation now in use by means of oral and oro-nasal inhalers," and he advocates the revival of the old method of treatment by means of a chamber charged with antiseptic vapours, and he is now engaged in perfecting an apparatus which he hopes will render this system more generally practicable. The experience of most practitioners at the present time is, however, clearly in favour of the direct inhalation of dry vapours, and a great variety of instruments have been constructed for the purpose, for the most part modifications of the original respirator inhaler suggested by Dr. Sinclair Coghill in 1876. The simplest forms of apparatus are now almost universally preferred as they are more comfortable to the patient, and more readily tolerated during prolonged application. Some inhalers are too heavy, and cause a feeling of oppression, and sometimes even difficulty of breathing. Others are objectionable by pressing on the face, and causing irritation of the skin. It is my opinion that all close oro-nasal respirators and complex instruments present no real advantages, and that they must soon fall into disuse, as their employment is seriously irksome to many patients. An inhaler ought to be a very light mechanical contrivance, especially designed to permit the voluntary introduction of medicated vapour by full inspiration, at the same time securing the freest possible access of air, so that the continuous and daily practice may be rendered both endurable and pleasant.

The small instrument represented in the engraving appears to me to possess all these essential qualifications. It consists of a vulcanite receptacle (Fig. 1) for holding the little pledget of cotton wool upon which the inhalant is dropped. The wire suspends the inhaler, and serves also as a compressor of the nose. When used for nasal inhalation one of the balls (Fig. 2) must



be selected, and half only of its circumference ought to enter the nostril. During oral inhalation another ball

is used, or the neck of the inhaler can rest against the upper teeth. The Figs. 3 and 4 explain the methods of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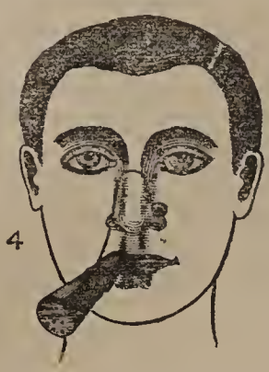
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adjusting the instrument. By merely opening and closing the mouth the patient can regulate the entrance of the antiseptic vapour into the lungs. It is extremely light, and causes no fatigue or oppression, and it does not require to be taken off during coughing, and expulsion of the sputa. I am much indebted to Messrs. S. Maw Son & Thompson for the care they have bestowed upon the manufacture of my inhaler, and I am glad to add that it can be obtained from that firm at a very moderate price.

The following table exhibits the respective weights of some of the best known inhalers now in general use :—

	Drs.	Grs.
Coghill's Metal Inhaler	8	45
„ Nickelled Inhaler	7	19
„ Celluloid Inhaler	3	27
M'Kenzie's Metal Inhaler	15	40
„ Nickelled Inhaler	18	52
„ Celluloid Inhaler	8	29
Robert's Nickelled Inhaler	9	3
„ Metal Inhaler	7	2
Burney Yeo's Perforated Zinc Inhaler	3	40
Ward Cousins' new Antiseptic Inhaler	1	12

In conclusion, it has been my endeavour to confine this paper strictly to the consideration of open inhalation ; and I have ventured to suggest that it is not merely a convenient mode of employing the breath as a medium for the introduction of antiseptic vapour, but that it is also a simple and mechanical method of sustaining forced inspiration, and thus utilising the antagonism which fortunately exists between pathological change and healthy activity. Any reference to the value of different inhalants, and antiseptic combinations has been intentionally avoided, and for information on these important matters, I must especially mention the paper of Dr. Sinclair Coghill (*British Medical Journal*, May, 1881), and also many recent contributions by Dr. Burney Yeo, and other eminent physicians. To Dr. Sinclair Coghill we are undoubtedly indebted for the revival of inhalation as a regular part of the treatment of pulmonary disease, and a perusal of his published experiences will be extremely serviceable to any who have not yet given it the attention which it merits.

The French Association for the Advancement of Science.—On the occasion of this learned body holding its thirteenth session at Blois this year, M. Masson, the treasurer, announced that its prosperity continued progressive, not only by reason of the number of members which had increased every year, but of the legacies which had been bequeathed to it. At the present time it numbers nearly 4,000 members and possesses a capital which exceeds 400,000 francs.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

COMPOUND FRACTURE OF FOREARM—RECOVERY, WITH GOOD USE OF HAND—REMARKS.

(Under the care of Mr. RICKMAN GODLEE.)

(For the notes of this case we are indebted to Mr. Montague Williams, Registrar and Pathologist.)

J. D., aged 10, was admitted on February 11, 1884 Just before admission was riding on the back of a brewer's dray ; he fell off and was knocked down and run over by a passing tramcar.

On Admission.—Boy is of good muscular development, healthy looking, with brown hair. Is very much frightened and somewhat collapsed. On examination there is a large wound across the back of wrist; the wrist joint is widely opened, the lower end of ulna with the epiphysis is broken off and projects in the middle of the wound. Several small vessels are wounded, but no artery of importance. The wound is full of dirt. The soft parts on the back of joint are mostly divided, with the exception of the thumb muscles and extensors of the little finger. The skin was undermined for the distance of an inch or more above the wound, and also to some less extent below. Hæmorrhage stayed by the application of a tourniquet to the brachial artery. The wound was washed with carbolic acid (1 in 20) but the mud was not cleared out of it, the limb put up on a back splint and the patient removed to the ward. About three or four hours later, chloroform was administered. The pulse under the anæsthetic became irregular, and the breathing feeble ; towards the end of the operation the pulse was almost imperceptible. Mr. Godlee first slit up the skin where it was undermined. He then washed the wound thoroughly with carbolic acid (1 in 20). The dirt was removed by scrubbing with a nail brush, and scraping with a Volkmann's sharp spoon. The nails were carefully pared and all dirt removed. The crushed tissues were then dissected away, and the epiphysis of the ulna removed by bone forceps. The wound was then powdered with iodoform, which was well rubbed in, and chloride of zinc (gr. xl ad ℥i) was thoroughly applied. The tendons of the extensor indicis and part of the extensor communis were stitched together as well as possible. Several small arteries were tied and one large superficial vein. The extensor tendons of the thumb were not injured. The wound was again repowdered with iodoform ; no stitches were introduced and no drainage used. The parts were dressed with protective and wet gauze, and the whole enveloped in an antiseptic dressing, a single anterior splint adjusted and packed with salicylic wool. The spray was not used during the operation. The patient was put to bed, and an opiate given. It was also found necessary to administer an enema of brandy. He was allowed iced-milk in small quantities to drink. Boy passed a restless night, tossing about continually. Temperature the next morning was 100·6.° Pulse 104, much improved in volume and almost regular. The wound was dressed. The parts were looking well and clean. Is in no pain. The carbolic spray was used during the dressing. Sensation over all parts of the hand is perfect. Passed a comfortable day ; has taken his nourishment well throughout. On the 13th the wound was again

redressed with antiseptic precautions; the discharge quite aseptic; temperature 99·2°. On the 14th the edges of part of the outer flap were sloughy looking; the discharge profuse and the odour sweet. Sensation not impaired except over sloughing points. On the 16th it was dressed. On the 18th the extent of the sloughing surface was more increased; temperature 98·8°. The dressing is slightly offensive. The hand is in an exaggerated position of abduction. The fractured ends of the ulna are protruding from the wound. On the 20th it was more healthy looking; fresh granulations are covering the wound. Mr. Godlee, on the 24th, found the wrist still unnaturally abducted. He applied a poro-plastic splint, the hand part of which was bent backwards to the flexor surface of the fore-arm, in order to hyper-extend the wrist. On the 12th of March the note states that the wrist is in a good position and the patient able to flex fingers to a slight degree. The wound is very small and everywhere covered with healthy granulating tissue. On the 17th he was discharged with instructions to attend the out-patient department for dressing, which he did, until the wound was soundly healed. When the patient left the hospital, he only possessed such power of extension as was given by the interossei and lumbricales. He was able to contract extensors of fingers, but their action was confined to dragging on the scar. Flexion was unimpaired. The scar appeared to be firmly fixed to the subjacent parts. After a time, however, when the splint was removed and the patient was allowed to exercise his hand at will, the scar became more movable, and he was able to extend his fingers almost, if not entirely, to the full extent. There was a considerable amount of movement in the wrist-joint, also pronation and supination.

Remarks by Mr. Godlee.—The extensive wound when I first saw it was full of caked London mud, presented a most unpromising appearance, but as the vessels were uninjured and the soft parts on the anterior aspect entire, I thought it right to try to save it. The success appears to be a good illustration of the advantages to be gained from the thorough employment of antiseptics. I believe great good is gained by applying more than one of the antiseptics which we are in the habit of using, and by applying them very thoroughly. The use of the sharp spoon and of the nail brush was found of great service in clearing away the particles of mud which had penetrated into the deepest recesses of the wound. The wound was left completely open, in fact all the undermined portions of skin were slit up. The stitches uniting the tendons gave way in the course of the first week, but the ends which had been united by them remained in contact with each other. After the wound had been healed, when it was found that the common extensor appeared to act only upon the scar, it was not anticipated that it would ever gain command over the fingers; and it is not a little remarkable that after some time the scar softened and the power of extension returned to the fingers, which at first could only be brought into such a degree of extension as can be effected by the action of the lumbricales and interossei; when I last saw him the hand could be easily extended almost to the straight position.

VESICAL CALCULUS—CONGENITAL MORBUS CORDIS—LITHOTOMY—RECOVERY.

(Under the care of Mr. RICKMAN GODLEE.)

Charles L., aged 8 years, was admitted into Barclay Ward on the 3rd of March last. His parents tell us that he has constant and painful micturition, a condition of things which have persisted since his birth. The urine voided has never been blood-stained, but often thick and muddy-looking. He is constantly wetting his bed at night. Has been cyanosed from birth, and unlike children has shown no inclination to play, but prefers to sit quiet. He often complains of palpitation and præcordial pains. Has had no past illnesses of particular note. Three sisters at home in good health, parents enjoy good health likewise. On admission, the boy is of spare muscular development, of lethargic temperament and apathetic. Cyanosis is evident in face and finger-tips. These latter are also clubbed to a marked degree. There is a decided præcordial thrill of an undulating character. Cardiac dulness is much exaggerated; commencing at the lower border of the second costal cartilage, it extends downwards to sixth intercostal space; laterally it extends a finger's breadth to the left of the nipple line, and likewise to the right border of the sternum. The intensity of the heart's impulse is one inch below and one inch internal to nipple. A loud, harsh, bellows murmur is audible at heart's apex, loudest at pulmonary cartilage, and systolic in time; it is traceable into the axilla, and round to the inferior angle of the scapula. The second sound is faintly audible at the heart's apex, elsewhere it is absent, the normal cardiac sounds being irrecognisable. The heart's action is occasionally very irregular, intermitting frequently with the radial pulse. Pulmonary resonance normal. Breathing vesicular. Liver and splenic areas not increased. Pulse 80, fairly full, compressible, intermittent at times. Urine sp. gr. 1015, acid. Traces of albumen, pus in large quantities, no blood. Dr. Sansom considers the bruit systolic in time and of pulmonary origin, the right side of the heart hypertrophied and dilated; thinks also that attempts might be made to administer an anæsthetic with due caution.

On March the 16th an anæsthetic was administered of pure chloroform. The patient had scarcely inhaled a drachm before cyanosis became more marked, the lips were livid as also were the fingers and finger-nails. The pulse was full, bounding, irregular and very slow. The cutaneous and superficial veins of the body were much dilated and their various courses readily traceable. The sound was passed and a calculus felt. Slight syncope now ensued. This was relieved by chafing the extremities and administering brandy by the rectum and the mouth. Patient was removed to his bed.

The following morning the pulse was 70, more regular, and the patient comfortable.

On the 22nd chloroform was again administered with great caution, it being inhaled with frequent admixtures of pure air. Cyanosis as before was increased and the pulse slowed (50); the pupils were contracted, respiration being feeble and shallow. In the lithotomy position Mr. Godlee performed the usual lateral operation. The stone was quickly found and readily removed. Very little hæmorrhage followed; the legs were tied together. The patient quickly rallied and was removed to bed. The stone weighed 110 grains, was smooth, oval, fawn coloured, and consisted of uric acid.

On the following morning the patient was comfortable after a quiet night. Temperature 98·2°, pulse 70. Passes plenty of urine through the wound. There is no hypogastric pain. On April 5th, the note states that he now voids his urine *per vias naturales*, a little escaping still through the wound. On the 11th the wound had quite healed and he gets up daily. On the 21st he was discharged quite cured and greatly improved in general health.

Remarks by Mr. Godlee.—One very interesting point in this case was the question whether or no it would be safe to administer an anæsthetic, and if so, which should be selected. It was judged best to employ chloroform rather than ether, because it was thought that the secretion of mucus from the bronchial tubes

might, by seriously interfering with the respiration, prove dangerous to him considering the very marked degree of cyanosis depending on his congenital heart disease. The use of chloroform placed the patient in a highly critical condition. His appearance was remarkable; all the superficial veins standing out as large blue lines throughout the body, and his respiration and heart's action being very seriously impaired. At the time of operation he was never brought deeply under the influence of the anæsthetic, and the result was that, owing to his struggling, there was no very serious increase in the cyanosis. The case after the operation exhibited no unfavourable symptoms; but it should be added that he returned to the hospital some time after the last recorded note and was still complaining of considerable frequency of micturition.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 20, 1884.

The Medical event of the week has been the publication of Dr. Crichton Browne's report on educational over-pressure in elementary schools. Mr. Mundella has supplied a corrective—in whose interests it is not quite obvious—to Dr. Browne's glowing periods, in the form of a memorandum by Mr. Fitch, a well-known official of the Education Department, and a member of the Senate of the London University, the publication of both being considerately deferred until there was a clear board and plenty of time for their consideration. We have abstracted and commented on both papers elsewhere, but may here observe that all the actors in this little comedy appear to have entered upon their parts with perhaps too much enjoyment. Dr. Crichton Browne evidently wrote his report *con amore*, as who would not if he could write like him? Mr. Fitch clearly performed his part of dispassionate critic with a gusto, which appears, according to Dr. Crichton Browne's letter in Thursday's *Times*, to have led him into certain inaccuracies of statement; Mr. Mundella characterized Dr. Browne's report in words that were evidently put together with some amount of glee, and even the children in the Board Schools, we are told, co-operated with manifest enthusiasm. But the highest amount of literary pleasure evidently fell to the share of the *Times* leader-writer, who would appear to have spent his ink not like the cuttlefish in a spasm of fear, but in a spasm of delight. Meanwhile, amidst all this display of forensic talent, the interests of the poor clients, the over-driven dullards, seem likely to be forgotten.

On the same day, Tuesday last, that the above-mentioned leader appeared, the *Times* also published an admirable signed article by Mr. Brudenell Carter, on the effect of civilization on the eyesight, in which the effect of unphysiological schooling on one of the most important of human functions was described in clear, incisive language, devoid of all suspicion of rhetoric. Whether the *Times* took a leaf out of Mr. Mundella's book and thought it well to insert a corrective to its own leader, or whatever other motive may have led to the happily-timed insertion of Mr. Carter's letter, it is beyond our power to guess. It is sufficient for us to note the appearance of the article as an important fact, and to impress on every reader who has not yet read it to do so without delay.

The 28th Congress of the Social Science Association was opened at Birmingham on Wednesday under the presidency of Mr. Shaw-Lefevre. The Health Section will be presided over by our valued contributor Dr. Norman Chevers, but his address it is understood will not be delivered until next Tuesday. Dr. Chevers will thus have a certain advantage over his fellow presidents whose addresses are to precede his, in that he will be able to comment on some of the subjects previously discussed, an advantage of which, we understand he intends to avail himself. The address will also deal with our sanitary shortcomings, and will advocate the establishment of a Ministry of Public Health, and—another favourite scheme of the author's—the publication of medico-topographical reports of towns and districts. Many papers of great interest will be read in the Health Section, cholera, vaccination, hospital ships, and the eyesight of school children being amongst the subjects that will be presented for discussion.

The cholera is still raging at Naples, though with so much less fury than a week ago, that King Humbert has felt himself justified in leaving the city, after a visit which has raised him at one leap to the top of the regal class. The epidemic appears to have reached its height on Wednesday week, the 10th instant, when 966 new cases were reported, 328 of which proved fatal, while there were 146 deaths amongst cases previously under treatment. On the 11th these figures were respectively 809, 332, and 98; on the 12th they were 872, 288 and 107; on the 13th 642, 239 and 109; on the 14th 643, 231 and 140; on the 15th 470, 167 and 116; on the 16th, the last day for which we have statistics, 463, 158 and 107. Thus in the week the new cases and the rapidly fatal cases have diminished by one-half, while the number of deaths among cases previously under treatment has shown a less marked falling off. On Tuesday week 50 per cent. of the new cases were dying within 24 hours (viz., 398 out of 794); last Tuesday only 34 per cent. of the cases proved thus rapidly fatal. The epidemic is prevalent in other parts of Italy, especially at Spezzia, and it appears to be spreading in Spain, while in France it is slowly dying out.

The cholera has made its appearance in Paris, at the Hôpital Bichat, which has been set apart by the Administration for the reception of such cases. Two deaths have occurred, with the symptoms and *post-mortem* appearances of the classical form of the disease. The first patient came from Perpignan, where the cholera still rages. The subject was suffering from diarrhœa when he started, and had endeavoured to check it by copious libations. The second patient also came from the South, and had been unwell for several days previously to his fatal attack. Isolation, disinfection, and immediate burial after death were of course ordered. No other cases having occurred since last week, it may fairly be assumed that the two above-mentioned cases

were "importations from abroad." The sanitary condition of Paris happens to be remarkably good at the present moment, and the death-rate remarkably low, being 985 last week, and 932 the week before. The average rate is about 1,200.

The cholera, writes our Paris correspondent, is still the prevailing topic in all medical circles, and the great subject of discussion at the Academy of Medicine. It might indeed be said that the subject has now been worn thread-bare, and that not one single notion of scientific value or practical utility has been evolved from the discussions of our medical senate, or, in fact, from the labours of congresses and learned bodies. Neither the *comma* of Koch, nor the germ theory; neither the doctrine of contagion, nor that of spontaneous evolution, has been able to stand the test of searching investigation and impartial criticism. Our faith in the efficacy of quarantine has been sadly shaken, but we have not received in return any new revelation as to the means of preservation which the progress of science might recommend as more efficacious; nothing has been ascertained as to the best methods of treatment, and we do not even know why an epidemic, after doing its worst, is found at last to die out spontaneously. In short, the *résumé* of all the discussions that have taken place since the outbreak might be summed up in the poet's words — "All that we know is, nothing can be known."

The Academy has, however, ordered a (statistical) enquiry to be set up as to the circumstances which have accompanied or apparently favoured the various outbreaks of cholera which have taken place in France. This gigantic effort will no doubt do much good to those who undertake it, and a vision of crosses, stars, decorations and more substantial rewards is dimly perceptible in the distant future; but, for our part, we should have greatly preferred the creation of a chair of epidemiology, proposed by the Government but set aside by the Academy. We possess, at the Faculty, a chair of "Histoire de la Médecine," which, in spite of the talent and learning of the three professors who have successively filled it, is manifestly a superfluity and painfully collects a scanty audience round the official representative of medical history and doctrines, as they flourished in times long past.

The history of epidemics is, on the contrary, one of the most interesting and important subjects in the whole field of science. Teeming as it does with information of daily importance and practical utility, it would attract at once the attention of the public; and the creation of an official chair, with all its surroundings, would speedily collect an army of investigators round an intelligent chieftain, and might perhaps lead to unexpected "finds" in the diggings of science. Personal motives are said to have played a part in the decision of the Academy. In this case, as in some others, a little "*mild despotism*" might have led to better results.

It is stated that at last success has attended the efforts to convey cholera to the lower animals. Drs. Nicati and Rietsch, inspired by Dr. Koch's example and advice, collected masses of the cholera microbe from the intestines of patients, who had just died of the disease, and inoculated some dogs and guinea-pigs with them. All the animals operated on were seized with the symptoms of cholera, and died, the guinea-pigs within 48 hours, the dogs within four days. Other experiments were made with regard to the influence of the gastric juice and the bile on the growth of the microbes, which it was found were destroyed by both these secretions. It is suggested that a certain means of diagnosing a suspected case of cholera is provided by the injection of the stools of such a case into the duodenum of a guinea-pig, which will forthwith, if the case is one of true cholera, succumb to the disease. We are not told, however, whether the injection of a simple diarrhœa stool, under the same circumstances, may not be attended by a like result. The experiments as well as the conclusions of Drs. Nicati and Rietsch will, no doubt, be subjected to the sharpest scrutiny.

The "comma" bacillus is turning out to be a common bacillus after all. In another column we publish a memorandum on this notorious microbe by Dr. T. R. Lewis, of Netley, which has been kindly forwarded to us by the Director General of the Army Medical Department. The two most important facts pointed out by Dr. Lewis are, first, that the bacillus found by Dr. Koch in Egypt was not the same as that found by him in India; and, secondly, that comma-like bacilli, indistinguishable from those found in cholera, are ordinarily present in the saliva of perfectly healthy persons. The moral is clear. First, it is impossible to attach much importance to conclusions dependent upon the discovery of organisms, with regard to the distribution of which experts express such very different opinions; and, secondly, it is unwise—and was unwise in Dr. Koch—to publish reports in the middle of an investigation. Science is becoming too theatrical—its popularity with the public exerting a baleful influence on it, and tempting men to achieve a cheap fame by publishing premature and immature results. Of course Dr. Koch may be able to dispose successfully of his critics, and to show that his results are not so crude as they are alleged to be. But men will be tempted to follow Dr. Koch's example, who have less ability to hold their own.

The meeting of the French Scientific Association, at Blois, has been largely attended, and has been graced with many interesting medical and surgical communications, which, thank Heaven! were not exclusively devoted to the topic of cholera. The irrepressible microbe, however, made its appearance in the lecture delivered by Professor Bouley upon "the latest discoveries of M. Pasteur." Not contented with sounding the praise of his hero, the celebrated veterinarian made a savage onslaught upon Professor Jaccoud for having dared to question, in his clinical lectures, the practical bearing of the germ theory upon medicine. Professor Jaccoud's strictures were couched in the most cautious language, and preceded by a well-deserved tribute of praise to the leaders of modern science. But nothing short of "*prostration of the whole body*," as before Eastern monarchs, will satisfy

the disciples of the great man whose triumph has been sufficiently glorious to suggest the propriety of leaving a small corner in the vast empire of human knowledge, for freedom of speech and liberty of conscience.

Several questions of interest were discussed in the Medical Section. M. Chaumier read a paper in support of the doctrine of the epidemic and contagious nature of acute pneumonia, regarding it as a constitutional affection, of which the pulmonary signs were but the local expression. He stated that in his experience pneumonia always occurred in epidemics, and he had found that those who suffered first in an epidemic were often those who had had previous attacks of pneumonia, a fact which he explained by suggesting that their dwelling-places perhaps preserved the pneumonic germ a long time. He had further noticed that epidemics attacked by preference certain classes of persons, for instance the young and old people, only attacking those of the other category later. He also read a paper deprecating the drug treatment of cases of pneumonia, and advocating the use of cold baths. At the same meeting M. Verneuil read a paper for M. Bessette, on the use of the thermo-cautery in the treatment of spontaneous gangrene. It was based on the case of a man, aged 54, who being the subject of diabetes, and having also albuminuria, had nevertheless recovered after the amputation of his foot, for spontaneous gangrene, by means of the thermo-cautery. Several of the speakers who took part in the debate were able to testify, from personal experience, to the efficacy of the method recommended in the paper. An interesting point in reference to these cases was mentioned by M. Verneuil, who observed that it was only in diabetics who were intemperate that these spontaneous gangrenes made their appearance.

At the last meeting of the Paris Academy of Sciences, the President publicly congratulated M. Chevreul, the illustrious chemist, on the occasion of his *ninety-ninth* birthday. The celebrated professor, who is in the enjoyment of admirably good health, has lectured at the Museum of Natural History for the last fifty-seven years; and if, as we all hope and wish, he is spared for a few years more, he will be an authentic and splendid instance of a centenarian.

Some interesting examples of the Metaplasia from medullary tissue to bone, were recently shown to the Lyons Society of Medicine by M. Vincent. This observer has conducted a prolonged series of experiments in connection with this subject, the most striking of which have consisted in the transplantation of discs of medullary tissue, taken from the radius of young cockerels, into their rapidly growing combs. Bone-formation followed the transposition of tissue, and M. Vincent was able to show several specimens of bone produced in this way.

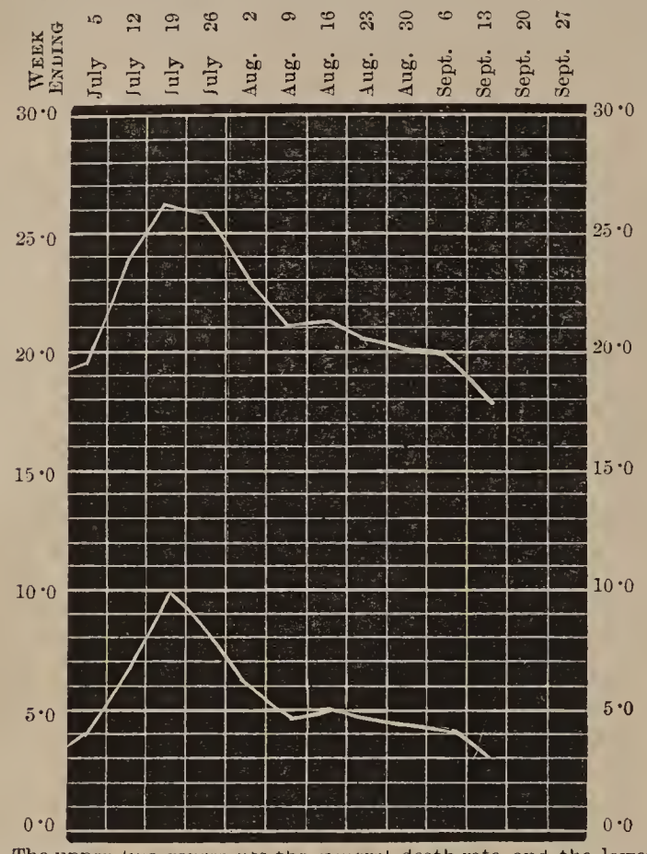
The *Gazette Médicale* has the reputation of being a well informed journal, and it is somewhat strange to find it stating in a recent *feuilleton* that Sir Erasmus Wilson, "the most illustrious representative of English dermatology since the death of Dr. Tilbury Fox," has bequeathed a large sum of money to the Medical Society of which he was the president. Probably, however, French readers would find quite as startling errors in English Medical journals, if they took the trouble to look for them.

The labours of the Red Cross Conference at Geneva terminated on Saturday week in a grand banquet given by the town. Amongst the many questions brought under discussion was one relating to the desirability of the adoption of the antiseptic treatment of wounds by armies in the field, which, strange to say, was supported by only two-thirds of those present, there being a large number of abstentions when the division was taken. Several resolutions were not discussed from want of time, but a proposal by the Greek delegates that in time of peace the aid societies should take part in other humane works, such as the care of the sick, and affording aid in time of great public disasters, was carried without opposition. The subject for the prize of 5,000 francs, offered by the Empress Augusta, has been announced. It is as follows: "The best form of barrack hospital, including rapidity of construction, economy of cost, hygienic qualities, together with the greatest adaptation to the necessities of sick and wounded patients in war." The Empress has further expressed her intention of presenting a gold medal with a likeness of herself, as a part of the prize. The final act of the Conference was the determination to erect a monument at Geneva to commemorate the foundation of the society there twenty years ago.

Our societies will soon be at work again now, as the following list of their dates of commencement will show. The Obstetrical Society will meet on October 8th and not on the 1st as stated in their printed card, and on the same day the Dermatologists will commence their operations. On the following day the Ophthalmological Society will resume, and the day after that will see the Clinical Society at work. The Pathological Society will hold their first meeting on October 21st, and will be followed by the Medical Officers of Health on the 24th. The Medical Society meet on Monday, October 27th, and on the day following the session of the Royal Medical and Chirurgical Society will be opened. The Epidemiologists will meet on the day sacred to the memory of Guy Fawkes.

The report of the Registrar-General for last week must be regarded as satisfactory. The total number of deaths was 1,373, or one below the corrected average for the previous ten years, and the death-rate has fallen 2·1 per 1,000 during the past week. Amongst the zymotic diseases small-pox accounts for 9 deaths, and measles for 11, or 6 below the corrected average, whilst scarlet fever is credited with 23 deaths, no less than 33 below the corrected average. The deaths from whooping cough too, 27 in number, were 6 below the average, diphtheria alone of this class of disease being above the average in mortality, the total number of deaths 22, or 9 less than last week, being still 10 above the corrected average. The deaths from diarrhœa, dysentery, and enteric fever showed a considerable diminution in numbers, but deaths from diseases

of the respiratory organs displayed a slight tendency to rise. The deaths of children under one year were



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the first eleven weeks of the current quarter.

398, a total which contrasts very favourably with the 936 deaths in the same column for the third week in July.

On the 15th instant, the temporary Hospital for Infectious Diseases at Liverpool was declared ready for the reception of small-pox cases, and during the closing days of the previous week it was visited by numerous persons who then paid, it is to be hoped, their first and last visit. The building stands half way up the declivity of a hill that slopes downwards to the estuary of the Mersey, and is so exposed to sea breezes, that a palisade has been erected to break the force of the wind. On the top of the hill is Parkfield House, and beyond this, but out of sight of the hospital, are the densely populated districts of Toxteth Park. The site is a most desirable one, both on account of its healthy situation and its secluded position. Unfortunately it is intended for a dock, belongs to the Dock Board, and is now let to the Corporation, who are only monthly tenants. The hospital is partly composed of canvas tents and partly of iron huts. These are arranged in two rows parallel with the river. The rows are connected at numerous points by beautiful covered walks that divide the intervening space into grass plots, abundantly planted with evergreens and shrubs. Rustic boxes filled with plants are placed outside the windows, and the general appearance of the hospital is rather that of a winter garden than of a lazaretto. Nor are the internal arrangements of the hospital neglected for outside appearance. There artistic effects are also studied, but there also we find the newest and most approved appliances combined with beauty. A foundation of concrete supports a boarded floor. The closet arrangements are of different kinds and of the newest patterns, whilst the drainage of the hospital is isolated from all pre-existing drains and complete in itself. An ingenious contrivance mixes carbolic acid and water, and when the vessel is full its contents are automatically discharged into the drains. The mortuary and *post-mortem* rooms are in a picturesque hut that looks like a summer-house amongst the trees. The kitchens, the central administrative blocks and the disinfecting rooms are situated at separate points and are the best of the kind. Telephonic communication is established with everyone, and the telephone to the house surgeon's bedroom keeps a bell ringing at his ear until he gets up, and he cannot stop it until he comes downstairs.

The estimated cost of the building is 12,000*l*., and it provides accommodation for 150 patients. There is room on the grounds for as many more. It is generally felt already that the tents are a mistake in this country, and these will probably be displaced gradually by the huts, which are more convenient. The epidemic for which it was built (small-pox), is now over, only about four new cases having been reported last week, but it will be available for typhus, of which disease Liverpool has generally plenty of cases. Dr. R. Robertson, visiting physician to the Liverpool Workhouse, has been appointed physician to the new hospital, on account of his large experience of infectious disease at the former place. Dr. Moore is resident medical officer. There is also a matron, and six nurses are ready for work. The hospital is entirely the work of the city engineer, and reflects great credit upon his taste, experience, and evident desire, irrespective of cost, to afford the medical officers every facility for the successful treatment of their patients. If the permanent infectious hospitals are constructed with the same skill, foresight, and liberality, Liverpool will possess models of what such hospitals should be.

By the death of David Alexander King at the early age of 28, a life full of promise has been cut short, and St. Bartholomew's Hospital has to mourn the loss of one of her most brilliant pupils. Dr. King crowned a long list of school triumphs and successes by taking the Gold Medal at the University of London in the examination for M.D., a result which did not surprise those who had best opportunities of judging of his ability. It is but little more than a year ago since he was elected to the Casualty Physicianship at his old hospital, following that up almost immediately by his appointment on the staff of the Brompton Hospital for Consumption. These posts, however, he was not destined to hold long, for an attack of pleurisy, about this time last year, was but the precursor of the serious pulmonary tuberculosis which, later on in the autumn, compelled him to give up all thoughts of continuing the practice of his profession in London. His death has severed many a friendship, but his memory will long be cherished by those who knew him best.

The return of public favour to English spas and watering places is leading to the re-opening of old and forgotten mineral springs and the opening of new ones.

At Canterbury two mineral springs, which were first discovered nearly two centuries ago by Dr. des Moulins, but which have been unused for fifty years, are about to be re-opened; while at Hastings a chalybeate spa was formally opened last week in connection with a new hydropathic establishment. The latter is said to be of the same character as though somewhat weaker than the waters at Tunbridge Wells. Considering that a gallon of the Tunbridge spring contains no more than an ordinary dose of iron, there must evidently be some occult qualities in these waters or a vast amount of credulity in their consumers if they are ever to come into general repute again.

Our readers will learn with satisfaction that the Prince of Wales has been able to send 4,000*l.* to the Lord Mayor as a result of the hospital *fête* recently held at the International Exhibition. The amount will form a tangible addition to sums raised by means of the Hospital Sunday and Hospital Saturday Funds; but is it not a matter for some reproach that charity, pure and simple, is not of itself a sufficient stimulus to unloose the purse-strings of the well-to-do?

PHYSICIAN AND PEDAGOGUE.

Those who are seriously anxious for the solution of the important question as to whether a harmful amount of pressure exists as the result of our system of elementary education, will not read without some regret the report and accompanying memorandum on this subject which have just appeared as Parliamentary papers. Valuable as both these papers are from different points of view, it cannot be denied that the object for which the enquiry was instituted seems less likely to be furthered now than before their publication. It will be remembered that Dr. Crichton Browne was asked some months ago by Mr. Mundella to report to him his impressions of the effect of work on the health of children attending elementary schools. The present report, published after some little Parliamentary pressure and departmental delay, contains an account of Dr. Browne's investigations, together with his conclusions on the subject, which are in accord with the opinion he had previously formed and expressed, that a considerable amount of physical and mental harm may justly be traced to the educational over-pressure which is encouraged by our present system. The memorandum which accompanies this report is written by Mr. J. G. Fitch, one of the chief inspectors of schools, who accompanied Dr. Browne on some of his visits of enquiry. The opinion of Mr. Fitch evidently is that there is practically no over-pressure in the school system, while he directly traverses almost every conclusion of Dr. Browne's and emphatically impugns his data and his reasoning. We may at once say that, while believing with Dr. Browne that a great deal of the alleged over-pressure does exist, and is calculated to engender considerable evils, he has, in our opinion, by the style and method he has adopted in support of his conclusions, given a great occasion to his opponent for a considerable dialectic victory. Were the *facts* indeed cited by Dr. Browne the only foundation for the inferences he has drawn, Mr. Fitch might be credited with a still more important success. The great matter for regret with regard to Dr. Browne's report is, that it is apparently based on observations, as he himself states, made in the brief intervals of leisure which he was able to obtain from his official duties. That Dr. Browne had previously formed an opinion as to the existence of some degree of over-pressure in our schools, and that he is well known as an able exponent of the evils resulting from such over-pressure, should increase rather than diminish the weight of his teaching; nor would it perhaps be going too far to hold that any widely-expressed opinion of medical men conversant with the ailments of the young, and engaged in hospital practice which brings them into contact with many School-board children, would alone be sufficient to decide whether or no there was any necessity for enquiry into the existence of over-pressure. We may certainly give Dr. Browne the credit of having ably emphasized his contention—and he really claims no more than this—that his conclusions possess "some general value and significance, and justify perhaps a further and more complete investigation of the question to which they refer." But in the controversy which will arise on the matter this modest claim will be forgotten, as it already apparently has been by Mr. Fitch; and we can hardly wonder if Dr. Browne's incomplete though eloquent essay is criticised by the same canons which would be applicable to a more laboured and business-like Parliamentary report. The contention which Dr. Browne, now that his paper has been placed before the public in this official form, will be said to have undertaken to support by fresh evidence, involves an enquiry far too vast and complex to rest upon such a very limited number of observations as he was able to make; and were there not a well grounded conviction in the medical mind—the aggregation as it were of many scattered experiences—that much that he says is true, and that a startling disregard of obvious and incontrovertible physiological laws does still obtain in our schools of all grades, we should have to admit that Mr. Fitch partially makes out his own case when he says that Dr. Browne's paper contains not a line which seems to deserve the name of "*proof*" that youthful sickness, weakness, or any other evil is directly traceable to over-work at school. All is fair, we suppose, in war and controversy; and it would have been too much to hope that Mr. Fitch, eager and critical as he has shown himself to be, would be sufficiently free from all taint of official bias to lose this freely given opportunity of regarding Dr. Browne's paper as a serious attempt at exhaustive demonstration of an important thesis. The quasi-accidental garb this report has assumed of a Parliamentary paper is as prejudicial to its real merits and the good it ought to do, as it is conducive to the triumph of those who see no blot in an educational system which is unchecked by medical inspection, and delivers over the developing brains of thousands of children to teachers devoid of physiological knowledge.

There are several points in Dr. Browne's report which on the face of them deserve serious consideration, and to which Mr. Fitch has done but scant justice. That over-pressure in some sense does exist, has been already officially admitted, and, as Dr. Browne insists, has been affirmed by school inspectors, and by

large bodies of teachers. It is certainly to be deplored that in the heat of dialectic dispute Mr. Fitch has passed so lightly over these undoubted facts. Whether Dr. Browne has clearly made out his case that detention and "home lessons" are sufficiently common to constitute a great evil, may at present be somewhat open to doubt, but his allegation that the testimony of teachers is overwhelming as to the existence of harmful over-pressure, is far too weighty and important to be almost ignored, as it has been by Mr. Fitch. Dr. Browne states that he has conversed personally with upwards of sixty teachers, only two of whom denied the existence of over-pressure. All the others deplored it, and many expressed forcibly the pain they felt in having to apply it to the helpless children they are called on to teach. We are convinced that a large number of unprejudiced medical men would from their own observations endorse the opinion of these teachers.

A great deal of the matter contained in Dr. Browne's report is doubtless somewhat hypothetical, and difficult of proof, though much of it is of great interest and importance; and we could wish that he had omitted for the present all reference to the possible remote consequences of over-pressure with regard to the alleged increase of insanity and nervous disease. But when he comes to the consideration of what he calls the connecting links between over-pressure and the increase of nervous disease, he gives some facts of undoubted value, whether we regard them in the light of "links," or only as ultimate results. Among the evils which he refers to—headache, sleeplessness, chorea, stammering, and short-sightedness we would especially notice that Dr. Browne makes out a good *primâ facie* reason to believe that there is quite an undue proportion of headaches among elementary-school children; and the facts and evidence that he adduces on this point are far more weighty and better substantiated than the somewhat captious and strained criticism of Mr. Fitch would lead us to believe. Here at all events Dr. Browne's method of enquiry will not appear so slipshod to the experienced medical man, or to the logician, as Mr Fitch says it did to him; though even here we must freely admit that Dr. Browne's argument, as it stands, is *per se* insufficient to demonstrate his conclusion. With respect to the harm accruing to the eyesight from overwork, Dr. Browne gives some valuable evidence that short-sightedness increases rapidly amongst our school-children during their educational course. This subject is enlarged upon in an instructive manner by Mr. Brudenell Carter, in a letter to the *Times* this week; and both authorities agree that there is evidence in England, and still more in Germany, that over-use of the eyes in book work, and badly lighted rooms, are productive of great and permanent injury to the sight, with many indirect evil consequences. The necessity for further enquiry into the whole matter seems to be gravely emphasized by many parts of Dr. Browne's report; and we can but again express our regret that an excess of zeal and rhetoric, and an absence of demonstrative argument have caused so many joints to be left open in the harness of such an able man as Dr. Browne for the entry of the barbed shafts of such an acute debater as Mr. Fitch. We can but hope that those who are really interested in this very important matter will not be blinded by the immediate and superficial result of the controversy; and that, while allowing to the Government Inspector the glory of having made a palpable though somewhat unfair hit, they will read between the lines of the practical physician's report, and confess that, at the least, the truth lies between them. The existence of over-pressure and the nature of its resulting evils can only be established and assessed by medical men of good physiological and practical knowledge. There is ample reason, as almost all unbiassed people, whether medical or lay, who have any knowledge of school-work would admit, to more than suspect the existence of over-pressure in a very appreciable degree; and we would urge the Government to appoint a small but carefully-selected commission, of which at least half should be composed of medical men who have had experience of practice among children, and especially at children's hospitals, to earnestly and thoroughly investigate the subject. And if each of these medical men were accompanied by a lay commissioner possessing the critical talent of Mr. Fitch, without his obvious professional bias, we should have reason to hope that out of our present darkness on this matter a fruitful light would at last arise.

MEDICAL TEACHING IN THE PROVINCES.

Mr. Shandy, it will be remembered, held very strong opinions, which he expressed with his usual vigour, as to the evils threatened by the excessive growth of London. He deplored the current of men towards town upon one frivolous errand or another, and if he had been an absolute prince would have taken care that his metropolis "tottered not through its own weight, that the head should be no longer too big for the body, that the extremes, now wasted and pinned in, should be restored to their due share of nourishment, and regain with it their natural strength and beauty." If Mr. Shandy had lived in this last quarter of the nineteenth century he would have seen—especially in connection with that medical errand, the memory of which gave such intensity to his language—not one metropolis, but many. There would have been no need now for Mrs. Shandy to have travelled to London; she could have been equally well attended at any one of those nearer northern cities, which are now rising, medically and in every other respect, into such prominence. As was pointed out by the writer of the interesting article on the Liverpool Medical Faculty in our Students' Number, the growth of our provincial towns in wealth and population has entirely changed the character of medical practice therein. "Pure physicians, surgeons, oculists, aurists, gynæcologists, and dermatologists can now make good livings, and give time for teaching also, where formerly there were none but general practitioners so immersed in practice that teaching as we now understand it was an impossibility with them." As a result of these improved opportunities, the leading practitioners in some of our so-called provincial towns are rivalling, and now and then outdistancing, their metropolitan brethren in the

public esteem. It is not uncommon, we are repeatedly informed, for patients who have sought relief in vain in London to succeed in finding it at Birmingham, and certainly in one branch of surgery, the radical treatment of hernia, the surgeons of Liverpool have acted as pioneers to the whole profession. It is true that there have always been distinguished physicians and surgeons in the provinces who by the mere force of their talent and character, and in spite of all disadvantages, have won for themselves a reputation throughout England. But these have been isolated examples, and they have never been able to found a school, for their pupils, if they had any, have been invariably sucked into the great vortex of London life. We do not go to Edinburgh to find the best of Simpson's pupils, for instance. But the conditions have undergone a change. What we are now witnessing, or hoping that we witness, is something very different from the occasional appearance of a provincial comet. It is nothing less than the gradual growth in the provinces of self-contained and self-dependent schools of medical thought and practice, differing in local colour from the great London school, in the same manner though not to the same degree that that school differs from the schools of Paris, Vienna, and Berlin.

This new activity is especially marked in the progressive organisation of the provincial medical schools. No one who has studied the articles on these schools which we published in our last number, or the statistics of the students entering at them, which we gave some weeks ago, can fail to be struck with the growing importance of the provincial centres of medical education. Thirty years ago the medical critic would have been justified in deploring with Mr. Shandy the current of men and money—or in other words of students and fees—to the metropolis. At that time London seemed to enjoy a monopoly of medical education south of the Border. The foundation and successful career of King's and University Colleges had stimulated the older hospitals to import greater method into their educational arrangements, and though the schools were far less completely organised than they are now, there was then no country hospital which could compete with them, and none which professed to give more than a preliminary training in preparation for the final walking of the London hospitals. Some fifteen years ago, however, the provincial authorities began to bestir themselves, and since then the progress of the country schools in organisation and in the favour of students has been so remarkable, that their competition is beginning to be apprehended even by London teachers. The establishment of the Victoria University, and the association of several of the schools, viz., those of Birmingham, Liverpool, Leeds, and Bristol, with Science Colleges has given them another advantage over many of the London schools, where the teaching of the preliminary sciences can only now be carried on at considerable tension. From this and other causes the proportion of provincial to London entries has increased in the last five years from less than one half to nearly two-thirds. In 1883 the eleven London hospitals scored 377 entries, while the eight provincial schools obtained 241, whereas, in 1879, the numbers were respectively, 461 and 225.

There are some who would deplore this result, and no doubt it is one which cannot be regarded with entire equanimity by metropolitan teachers. But the movement is a healthy one and deserves to be regarded with a favourable eye. It may be quite true that such subjects as anatomy, physiology, chemistry, and the other foundation sciences cannot be taught so economically in small schools as in large ones, and that is a strong argument, as we have often pointed out, for the amalgamation of the London schools in respect of such teaching. If it should be found possible it might also, no doubt, be advantageous to the provincial schools to unite their forces for this purpose, and to teach the primary subjects at two or three instead of at eight different centres. Such an arrangement, however, would seriously interfere with one of the main advantages of provincial schools, viz., the possibility of the students residing at or near their homes. But whatever be the advantage of centralising primary medical instruction, no one has yet been found to advocate the centralisation of clinical teaching. The greater the number of hospitals at which clinical medicine and surgery are systematically taught, the greater the advantage to the students, to the physicians and surgeons, to the patients, and to the profession. The growth of working clinical schools in all our large centres of population ought to be regarded by us here in London with sympathy and approval, and encouraged by every means in our power. He is not a true servant of science who looks askance on such progress, because it keeps fees out of his pocket.

ARMY MEDICAL REPORT FOR 1882.

[Third Article.]

The health of the troops abroad during 1882 was of course less satisfactory than that of the men at home. To the usual causes of disease among soldiers must be added, increased intemperance, the depressing effects of climate, and the hardships of war. Before we refer to the reports of different stations we must notice some observations recorded on the subject of intemperance in the Army serving in the East Indies. We are told that "year after year the extension of teetotalism (See Bengal) in the Army is a fact, and it becomes a perplexing one when found in conjunction with a greater number of the particular illnesses due to drink. It is of interest to ascertain whether on the whole there is an increase of sobriety in the force of late years or not." The writer of the report would, if he could, take crime in the Army as a test of the increase or decrease of habits of drinking, but does not consider the evidence within the scope of medical enquiry; so he takes "the relative prevalence of 'dyspepsia' to be a fair index of drinking habits among soldiers." But surely dyspepsia is not frequently the cause of military crime? We know that it is hard for a man with a bad stomach to be a good Christian; but it is not to be supposed that indigestion culminates in crime. The grossest effects of drinking are shown in the prevalence of

alcoholic poisoning, and of delirium tremens; and to these diseases no doubt military crime could be traced. Comparing 1881 with 1882, we find that in the former year the admission rate for dyspepsia was 38·0 per 1,000 while in 1882, when teetotalism was spreading, it was 42·1 per 1,000; showing an increase in the latter year of 4·1. With regard to the admission rate from alcoholic poisoning and delirium tremens in 1881, it was 3·5 per 1,000; and in 1882 it was 4·8, being an increase of 1·3 in the latter year. And yet in 1881 the proportion of abstainers was only about 1 to every $10\frac{1}{2}$ men, while in 1882 it was 1 in every $8\frac{3}{4}$ men. The author notices the admissions from accidents as affording a possible gauge of intemperance, but here again we find that the admission rate for 1881 was 99·1 per 1,000, while in 1882, the year of the spread of teetotalism, it was 107·6, being an increase of 8·7 per 1,000. Medical opinion seems divided as to whether the open canteen system tends to foster or decrease habits of intoxication? Here again we are met by the puzzle that the restrictions of limited hours of purchase were of less efficacy than the open system, as it is believed a smaller sale of canteen drinks takes place under the latter regulation. A possible solution of the conflicting theories might be found in the investigation of the drink purchase in the native bazaar.

Teetotalers may possibly hold some intoxicants as not forbidden; and beer drinkers may be induced to supplement their potations on unlicensed native premises. In the bazaar too, doubtless, there are various intoxicants to be procured not usually supplied in European liquor houses, and we have heard of cases of delirious intoxication which owed their origin to Indian hemp.

The depressing effects of climate must be taken into consideration when we compare the sick rate abroad with that which prevails at home. Sanitation can do much for soldiers' in the East, but it has to struggle against weary odds. Everything that can be done in cantonments affects but a small portion of the enormous country, which is a hot-bed of filth. The fluctuations of the great meteorological phenomena overmaster the best directed attempts of science to control disease; and the high temperature, while it lowers the spirits of the men, leaves their bodies less capable of resisting sickness. We are told that "the interest taken in athletic sports is languid and fitful," and that soldiers look on "games" as merely so many calls upon their labour. During war, the fatigues and exhaustion inseparable from a campaign are superadded to the effects of heat, and no doubt the lowered and uncertain diet tends largely to increase disease. Of course these causes do not affect all foreign stations alike, and the disease and death-rates vary accordingly. Thus at Gibraltar the deaths were 10·31 per 1,000, and of constantly sick 50·35. There was an increase of mortality, as compared with the previous year, of 5·81 per 1,000, and this was partly due to the number of fatal cases of "enteric fever." The *youth* of the soldiers is given as the probable cause. We are informed that "the four infantry regiments composed of comparatively seasoned soldiers, being required for service in Egypt, were replaced in the middle of summer by four unacclimatised regiments from England, consisting chiefly of *very young soldiers*. It is remarked that this undoubtedly increased the sick rate of the garrison."

At Malta we find the greater prevalence of enteric fever was also noticed. The Principal Medical Officer remarks: "The increase is difficult to explain, but since the year 1875 it has gradually increased, and the type of the disease shows it to be more severe. This certainly is my opinion, since Malta has been garrisoned by regiments composed of young soldiers, who are well known to be more liable to the disease than men of mature age." It was not possible, we find, to attribute the disease to any insanitary condition of the barracks or the water supply The grog shops are mentioned as not being in good sanitary condition there, but after all the heaviest drinkers do not reside in grog shops, nor are they likely to be injured by the water they consume there. In Cyprus, again, we find that while in 1881 there were but two cases of enteric fever, in 1882 there was an increase in the admission rate from this disease of 35·3 per 1,000. Only one case was clearly due to local causes, and all the others were imported. "They all occurred in the West Kent Regiment, and though the dates of their admission to hospital were some time after the arrival of the regiment in Cyprus, there can be no doubt that all these attacks were the result of service during the campaign in Egypt."

We suppose the *germ* theory must account for this; but we must notice that "the preponderance during the greater part of the year of very young soldiers in the Royal Sussex Regiment is also given as a cause of the general increase of disease." In Canada we observe that intemperance is returned as the cause of numerous admissions from accidents, wounds, contusions, and fractures. This can scarcely be wondered at, since "proportionately there are more drinking shops in Halifax than in London." At Bermuda, venereal disease was dreadfully prevalent. The admission rate for all forms, was 78·8 per 1,000. The Principal Medical Officer states: "This enormous increase is due to the entire want of supervision and restriction; the need for active and timely interference has been very forcibly represented to the Government of the island." So much for what *legislation* can do or leave undone in combating or fostering disease. In the West Indies, we see a great improvement in the health of the troops. There was a lucky immunity from yellow fever, which had been epidemic in Barbadoes in 1881. At "the Cape" we again have to notice enteric fever. The disease caused 240 admissions and 47 deaths, all the cases occurring in Natal. Here the disease may be attributed *to filth*. The Principal Medical Officer remarks: "This fever has always occurred amongst troops in camp at Natal in the hot season, when the annual rains wash all the filth and refuse down into the water courses; and on the subsidence of the flooded state of the rivers and streams, dirty muddy banks, and refuse not carried away, are left exposed to the sun's rays with an almost tropical heat."

We notice the prevalence of malarial fever at the Mauritius, the percentage of which among the troops is attributed to the faulty position of the barracks. Sanitation might do something here, but we fear the

money difficulty will silence science. In China we find venereal disease triumphant. The admission rate for all forms was 147·4 per 1,000.

The report from Bengal treats largely of enteric fever, and here we must notice the rather remarkable fact, that it is not so very long ago since authorities asserted *that enteric fever was never seen in India.* The truth probably is, that the disease was there, but not diagnosed. On looking back at the Blue-book for 1879, we find some remarks upon this subject in an excellent paper by Dr. Crawford. He said, "In Army life, accuracy of diagnosis is sacrificed to promptitude in classification, and a most undeserved reflection is apt to be cast upon the medical officer for unavoidable errors on his part by his being compelled to do that which, in a disease like enteric fever in this country, is often most difficult and sometimes impossible, in the absence of pathognomonic symptoms." If we turn to the appendix of the Report for 1881 we find in the remarks made by Dr. Maclean, Professor of Military Medicine, that it was at one time imagined that there were two types of enteric fever in India, but the theory is now abandoned. The outbreak in Bengal in 1882 occurred at different stations, and the causes can hardly be determined. The opinion, however, seems to be that the theory of the action of heat, as exciting enteric fever in young men newly arrived in India, is not supported by the evidence. Passing on to Madras, we find an outbreak of enteric fever, which occurred mostly at two seasons, and the deduction is "that some peculiarity of climate or some insanitary condition existed at or previous to these periods which did not exist at other times." We notice particularly that the state of the drainage after the first fall of rain was suspected as a cause of the disease although no insanitary condition about the barracks or their water supply was detected. At Bombay, again, enteric fever was not traced to insanitary causes, but cases are noticed *among the men recently arrived from Egypt,* and the attacks among *young soldiers* are also commented upon.

The report on the health of the troops serving in Egypt is interesting. It gives the medical history of the Army of Occupation, and supplements the story of the campaign, so ably told by Deputy Surgeons-General Hanbury and Marston, in the Blue-book for 1881. The whole period of the residence of British troops, to the end of 1882, must be divided into two parts, as the Expedition lasted from the 17th July to the 9th of October, and the Occupation from the 10th of October to the 31st December. The death-rate of the war period was 76·57 per 1,000, and that of invaliding 766·01 per 1,000.

During Occupation when the fighting was over, the death-rate increased to 100·69, and invaliding decreased to 286·61 per 1,000. With regard to the invaliding we must bear in mind that there was no use in retaining sick men in Egypt when the war was over; for there was no necessity to patch them up for a little more fighting. We notice that during the period of Occupation "the sickness from fevers was largely increased by, and the mortality from them mainly due to, the great prevalence of enteric fever." The report remarks that it would be impossible to enter into the causes that have been assigned by pathologists for the disease, but as far as Egypt was concerned, *all the conditions* were present for the operation of any or all of them. Filthy barracks, foul water, bad food, hard work, fatigue, and reaction after the excitement of the campaign all played their part; but be the causes one or many, it is curious to notice the long period of incubation exhibited by many patients who suffered. For instance, the Brigade of Guards left Alexandria between the 10th of October and the 2nd November, and cases continued to be admitted for nearly nine weeks after that date. It is remarked that "the disease was of Egyptian origin, and that it was not due to infection from one to another (in England) seems highly probable, because the spread of it was confined to those who had been in Egypt." The difficulties of diagnosis are again recognised, and we see that medical authors are blamed for dogmatic assertions in their text-books, since "this fever does not invariably conform to the temperature ranges which have been *far too arbitrarily laid down.*" (The italics are our own.) There is a notice also of the typhoid fever of the French Army of Occupation of Tunis, which deserves perusal. We have only space to remark that the immunity of the hospital attendants is given by the French authorities as an argument of incontestable value against the opinion that *contagion* alone is the cause of the development and the extension of this epidemic. With regard to diseases of the eye, which were so prevalent in Egypt, and which in many cases assumed a purulent character of great severity, we hail with pleasure the pride and delight exhibited in the remark: "By the vigilant and unremitting attention of the medical officers the disease may be said to have been literally *stamped out* in a comparatively short period and *in no instance has there been loss of sight.*" And here we close our notice of the report itself. It is a record of honest work, done in the attempt to investigate, control, and cure the diseases and the suffering to which our soldiers are exposed.

REVIEWS AND NOTICES OF BOOKS.

HEITZMANN'S HISTOLOGY.[1]

(Second Article).

The more one studies the various chapters of this work, whether written by Dr. Heitzmann or by one of his many pupils, the more will one be inclined to admit that a Histological school of great value exists in America. As Dr. Heitzmann says in his preface: "A doctrine which is accepted by good observers in America cannot be lost, but will develop independently of European microscopists, who to a great extent are prejudiced by the teachings of the older masters." And this is true. Scientific teaching has made great strides in America within recent years. Heitzmann is the histological chief of America, and

[1] "Microscopical Morphology of the Animal Body in Health and Disease." By C. Heitzmann, M.D. Trübner and Co.

his school of followers is large. They bring a freshness to bear upon debateable matters which is very agreeable, and we are sure that our readers will derive pleasure and instruction from reading their essays.

To resume our review. The author devotes a chapter to the elucidation of muscle, and adopts Brücke's view that sarcous elements do not exist as solid and unchangeable masses in the living muscle, but are groups of molecules arranged in columns of a varying configuration, at the moment of death. "I am unable to see in the living striated muscle anything else than in the living protoplasm in general, namely, granules and heaps of granules of living matter, the sarcous elements, and between these a noncontractile interstitial substance . . . . All the sarcous elements, whatever may be their size and arrangement, are uninterruptedly connected in both longitudinal and transverse directions . . . . The smaller the sarcous elements, the more rapid and continuous the action of the muscle, and *vice versâ*. Heart, the most active of muscle, has the smallest sarcous elements. Contractility is increased, in bioplasm in general with the smallness of the points of intersection of the reticulum. The theories of Krause's 'muscle caskets' and Schäfer's 'connecting lines' (in the water beetle) 'between the two narrow distal rows, have arisen from the erroneous idea that the filaments run *between* the sarcous elements, while in reality they directly connect them, often at their edges." It is evident that the writer has very decided opinions, leaning to older views modified by his own researches, but we are afraid that we are not any nearer a correct understanding of the structure of muscle, so apparently simple and at the same time so unintelligible.

In Chapter X., writing of the lymphatic system, Dr. Heitzmann says: "During the last fifteen years many erroneous views concerning the lymphatic system have arisen, due to the method of studying, viz., by 'parenchymatous injection' of coloured liquids. Perforations were made at random in the tissues of the body, and liquids were then forced in from without. The results and views obtained by this means are only worthy of being forgotten . . . . . Throughout the lymph ganglia, the spleen, and the lymph tissues in general, erroneously termed 'adenoid tissue,' lymph vessels probably do not exist. . . . . Lymph vessels are like blood-vessels, found only in connective tissue formations . . . . The assertion of Von Recklinghausen that connective tissue is pervaded by spaces and canals, destitute of walls of their own, and thought to be the roots of the lymphatic system, is erroneous, as proved by the chapter on connective tissues . . . . We are not justified by any facts in connecting the spaces round connective tissue corpuscles with the lymphatic system."

Many of the author's pathological views are peculiar and original. They are the outcome of his convictions of opposition to the cell theory. We have not space to refer to these in detail. We will, therefore, only quote Dr. Heitzmann's ideas of the pathology of inflammation. His views on this subject lead him "to the conclusion that a *cellular* pathology, according to the theory of Virchow, cannot be maintained, for in the tissues of the animal body there are no 'individuals,' no 'cells,' and consequently can be no isolated 'cellular foci of disease.' Inflammatory change consists in, first, a dissolution, a liquefaction of the basis substance; and secondly, an increased production by the living matter of its own kind. It is the living matter as distinguished from the interstitial liquid, a solid basis substance, that alone can reproduce its kind, and therefore originate the extensive new formations pseudo-membranes, callosities, vegetations, &c. . . . . The designation 'granulation tissue' is scarcely tenable for the earliest stages of the inflammation, inasmuch as there is no new tissue produced, but only a formation analogous to that from which the inflamed tissue sprang . . . . The general designation of 'inflammatory new formations applied to 'suppuration' or 'formation of pus corpuscles,' is decidedly incorrect." Heitzmann claims that newly appearing as well as newly-formed elements are interruptedly connected by filaments of living matter, with each other, and with non-inflamed neighbouring tissue. Wandering cells are single corpuscles separated from their neighbours. Newly-formed blood corpuscles, lying within newly-formed blood-vessels are really separated from the parent soil. Pus corpuscles are isolated elements separated from one another by liquid.

At first is an excess of nutriment, the youngest portions of the tissue unit (nucleus and nucleolus) are first affected and return to the juvenile condition; the basis is subsequently dissolved out, and a number of centres (such a nucleus or nucleolus) return to the juvenile condition. If the connection between the corpuscles remain, a medullary tissue is produced; if not, hæmato-blasts, and eventually red corpuscles.

Tumours and tuberculosis have long chapters devoted to them. Heitzmann concludes that tubercle is an inflammatory new formation, rising from an inflammation with a scanty neoformation of living matter and without any new formation of blood-vessels.

We cannot follow the author through the remaining pages of his book. It will have been seen from the numerous quotations we have made, what an independent thinker he is. Indeed the book is strikingly original. We venture to think that the earlier portions, however, are the best. The work contains many papers written by the author's own pupils, some of which are important. The list of contributors includes Abbott, Beyer, Bödecker, Davis, Elsberg, Emerson, Franke, Greene, Hasslock, Heitzmann, Hoeber, Holbrook, Hurlbutt, Johnstone, Meyer, Millard, Müller, Ripley, Rockwell, Schöney, Tanszky. Many of these writers contribute papers of great value and originality. That all this work should have been done during the last ten years, speaks well for the energy of Heitzmann and his pupils.

The style of the book is good, and we cannot close our remarks without calling attention to the excellence of the engravings, of which there are nearly four hundred. These are all original, and taken from the author's own drawings. We congratulate the publishers upon having produced an admirable volume, well printed with clear type, upon good paper, and well bound. Some of our English publishers would do well to take example by this.

THE INTERNATIONAL MEDICAL CONGRESS.

XI.—Section of Laryngology.

President:—Dr. Morell Mackenzie.

The laryngoscopists have this year for the first time obtained the franchise in the great International Medical Parliament. At Amsterdam they were not represented at all, in London they were only admitted as a sub-section, but at Copenhagen they were allowed the full honours of a Section. The meetings were well attended during the entire week. Drs. Bayer (Brussels), Beschorner (Dresden), Bosworth (New York), Bresgen (Frankfort), Catti (Fiume), Daly (Pittsburg), Delavan (New York), B. Fränkel (Berlin), E. Fränkel (Hamburg), French (Brooklyn), Gottstein (Breslau), Hooper, Hedley, Hering (Warsaw), Krause (Berlin), Michael (Hamburg), Morell Mackenzie, Moure (Bordeaux), Roe (Rochester, U.S.A.), Schmiegelow (Copenhagen), Schnitzler (Vienna), Schäffer (Bremen), Semon (London), Welmer (Frankfort), and many other well-known representatives of laryngoscopy from Europe and America being present. Dr. Morell Mackenzie was unanimously elected President.

The Structure and Diseases of the Tonsils.

At one of the first meetings, Dr. Bosworth, of New York, presented a communication on "The Structure of the Tonsils and their Diseases, from a practical point of view." His views represented a "new departure," for in opposition to Luschka, Sharpey, and other anatomists, who have described the tonsil as an almond-shaped organ possessing a fibrous investing sheath, he maintained that the tonsil is in fact "a group of glands." His pathological views were also somewhat curious, for he argued that quinsy is not tonsillitis, but "a phlegmonous inflammation of the areolar tissue of the soft palate or pharynx." It cannot be said, however, that Dr. Bosworth's new views were received with any favour by the members of the Section.

Motor Impairments of the Larynx.

On the following day Dr. Felix Semon read a paper in which he proposed "an ætiological classification of the motor impairments of the larynx," and after dealing with this subject in considerable detail, he proceeded to make some remarks on abductor paralysis. He stated that from examinations made both on living and on dead subjects, he had come to the conclusion that when the vocal cords are at rest, the glottis is more widely open than in the so-called "cadaveric position" which has hitherto been supposed to represent the intermediate condition of the vocal cords, *i.e.*, their position midway between inspiration and vocalization. Allowing, however, for this, the glottis is still the narrowest part of the air tube, and Dr. Semon expressed the opinion that "within the nucleus of the spinal accessory nerve there is a strict differentiation of the ganglia according to their functions, and that the one ganglion on each side which presides over the abduction of the vocal cord on that side, constantly receives impulses from the neighbouring respiratory centre. These impulses, however, are not generated within the respiratory centre itself, but are brought into action by stimulation transmitted to the respiratory centre through the afferent nerves contained in the trunk of the pneumogastric."

Dr. Hermann Krause, of Berlin, then read a very interesting communication, giving an account of experiments performed by him on animals, which went to show that the voluntary muscles of the larynx have a cortical centre. On exposing a dog's larynx, and irritating a certain section of the cortex by electrical currents of moderate intensity, he invariably noticed rising of the larynx, movement of the vocal cords to a position midway between expiration and phonation, raising of the palate, contraction of the constrictor pharyngis, and movements at the base of the tongue. By applying stronger currents, the adductor muscles were thrown into a state of spasm. That the part of the cortex in question is the centre of the laryngeal movements was further confirmed by experiments of extirpation, which were successfully performed on both sides in ten dogs. The cortex was experimented upon, first on one side and then on the other, and after all inflammatory symptoms had subsided, and the cerebral wounds had cicatrised, or were in course of cicatrisation, it was found that eight of the dogs had entirely lost the power of barking, and on attempting to do so uttered either no sound at all or only a hoarse whine. In the case of the two dogs which were still able to bark after the operation, it was shown that the excision had not been properly performed. From these experiments, Dr. Krause had come to the conclusion that the so-called paralysis of the *ab*ductor muscles of the vocal cords is in reality tonic spasm of the *ad*ductors, and that the wasting of the abductors is a secondary degenerative change resulting from non-use. The reading of this paper was followed by a somewhat warm controversy, in which Drs. Semon, B. Fränkel, Krause, and others took part, but no decision was arrived at.

The President, in closing the discussion, expressed regret that more attention had not been bestowed on the important subject of classification, and that the burning topic of the abductors had monopolised the debate. He called attention to spasm of the vocal cords, one of the items in the proposed ætiological basis of arrangement. He (Dr. Morell Mackenzie) considered that the affection might be called "vocal cramp," and might be looked upon as analogous to "writer's cramp." It affected only those who had to use their vocal organs to excess, and he had met with it principally among clergymen. In the only cases in which he had found it in women, the patients had deaf relations to whom they were constantly speaking in a loud voice. An example of the affection occurring in a huntsman was shown at the International Medical Congress in London by Dr. Semon, on behalf of the speaker.

Dr. Bryson Delavan, of New York, next gave a report of two cases, which tended to show by clinical evidence that there is a cortical centre of motion for the larynx in the vicinity of Broca's convolution, and supplied by the anterior branch of the middle cerebral artery. One of the cases which supported this view was that of a man, aged 69 years, who suffered from hemiplegia on the left side, and paralysis of the left side of the face and tongue. His voice, from having been full, deep, and sonorous, became cracked, piping, and uncertainin tone. The left vocal cord was seen both by Dr. Delavan and Dr. Clinton Wagner, to whom the case was referred, to be fixed in the median line, that is, in the position of adduction. In the second case (which was originally reported by Dr. Seguin), there was also at first left hemiplegia with impaired power of articulation, from inability to control the muscles of the pharynx and larynx. No laryngoscopic examination was made. Subsequently the patient had an attack of right hemiplegia with aphasia, from which he died. The autopsy showed that the surface of the third frontal convolution on the right side, and the grey matter beneath it was yellow in colour, and had a tough elastic feel. The lesion was about an inch square in superficies, and a quarter of an inch in thickness. A similar change, but less in degree, was found on the left side. The left middle cerebral artery was plugged by an embolus, at a point half an inch from its origin. A portion of brain, about half an inch in diameter, supplied by this artery, was in a softened state.

(*To be continued.*)

ABSTRACTS AND EXTRACTS.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

Abstract of Dr. Crichton Browne's Report, and Mr. Fitch's Memorandum.

Dr. Crichton Browne commenced his investigation with the opinion that educational over-pressure did exist to some extent in elementary schools, an opinion, he tells us, founded upon three things; first, statements made to him by medical men; secondly, the fact that certain well-known physiological laws were disregarded in the elementary,

schools, which laws could not be disregarded with impunity; and thirdly, the assumption that the indiscriminate brain-forcing which he had seen in middle and high class schools extended into the lower schools also. He then proceeded to mention the evidences of over-pressure which he had met with in the course of his investigation.

(1) The first point was the *detention* in school after hours, which the teachers assured him was necessary, in order that the requirements of the inspector might be satisfied, and a sufficient number of passes be obtained.

(2) *Home lessons* came next, but as these were not approved of by most of the London teachers, not much was said upon this head.

(3) *The testimony of the teachers themselves*, as expressed in their associations and conferences, showed that in London at any rate they believed firmly in the existence of over-pressure. Of upwards of 60 teachers with whom he conversed on this subject, only two denied the existence of over-pressure.

(4) *The condition of the children* would settle the question of over-pressure in itself. In the elementary schools the backward children were the ones who suffered from the effects of over-pressure, as one teacher had forcibly observed to him, "Not only do these dull children break down in health under our manipulations, but they grow more stupid, seeming to lose in general intelligence what they gain in mere technical knowledge of reading, writing and arithmetic." Examinations he pointed out were in this direction producing a rich crop in the future of nervousness. Backward children he divided into three classes, the dull, the starved, and the delicate. *Dulness* shaded off gradually into imbecility, a condition which might supervene at any point in the mental evolution. The *starved* constituted a more important section of the backward children. A not inconsiderable number of children were found to have come to school without any breakfast at all, besides a much larger number who were quite insufficiently fed. Then there were the *delicate* children, labouring from a great variety of ailments, but all were expected to get through the same amount of work, and make the same progress as those who were healthy.

Over-pressure had its origin in great measure in the *examination* system, and this arose from the system of *payment by results*, results proximate and partial, not the real final results, which could not be known under many years. When asked as to the effects of over-pressure, the steady increase in insanity might be pointed out as an evidence of high pressure, though at present sufficient time had not yet elapsed to demonstrate its relation to education. The great increase in suicide too, was instanced as coinciding in time with the modern extension of education, and as being most prevalent in regions where education was most widely diffused. But it was in other diseases of the brain and nervous system that the evils of over-pressure were more clearly manifested, hydrocephalus and cephalitis being instanced as diseases which had become relatively more common at the school age during the last twenty years. Diabetes mellitus was specially singled out as an instance of the greater tendency to diseases of the nervous system in modern days.

The next step was to ascertain if any connecting links between these grave disorders of the nervous system and educational over-pressure existed, and for this purpose he had enquired into the history of *headache* amongst some of the children. The result of this investigation was that 46·1 per cent. of the children professed to suffer from them habitually. These results were obtained after considerable cross-examination in every case where there seemed any reason to doubt the answer of the child. It was further found that in a considerable majority of cases the headache occurred in the afternoon, but that in the higher standards evening headache predominated, whilst the morning headache occurred, as might have been anticipated, amongst the half-starved. The headache was frontal in a very large proportion of the cases. Next the question of *sleeplessness* was enquired into, a subject beset with many difficulties, as various causes might intervene to produce sleeplessness besides school troubles, but *somnambulism* and *somniloquency* could be more easily proved to exist, and were found to exist in considerable proportion and to be more or less directly associated with the school work. Of *chorea*, contrary to expectation, he met with no examples, though choreiform movements were occasionally seen.

A brief allusion was made to the relation of *neuralgia* and allied disorders and *shortsightedness* to education.

The report concludes by contrasting the condition of the children in some schools in the south of Scotland with those in London, much to the disadvantage of the latter in a physical point of view.

Mr. Fitch commences his memorandum by expressing his regret that he had not been told the object of Dr. Browne's investigations, as he would have been able to introduce him to typical schools, and in other ways to aid him in obtaining reliable information as to the working of the Education Acts. He also calls attention to the fact that Dr. Browne was not an unprejudiced observer, having denounced the system before he had any personal knowledge whatever of its working.

The schools which Dr. Browne visited happened to be situated in some of the poorest districts in London, and Mr. Fitch considers that before attributing any ailments found amongst these children to the school work, a similar enumeration ought to be made of children not at school at all, of children under instruction in the higher schools or at home, and of an equal number of human beings, children or adults, collected at random.

He objects to the method adopted by Dr. Browne of questioning the children in a body, asking them to hold up their hands if they had a headache and so forth, and considers that the children regarded the whole thing as a joke, and the results so obtained to be unreliable.

Mr. Fitch quotes long extracts from the Registrar-General's Reports, which show a continuous and satisfactory improvement in his opinion in the death-rate of children of school age during the last few years, but they also show the very fact for which Dr. Browne contended, viz., an increase in the death-rate from diseases of the brain during that period.

As to the health of children in the schools Mr. Fitch gives it as the result of his experience that wherever the school work is best done, there the signs of health and cheerful activity are most manifest.

Over-pressure, he says, is a new word, and public discussion of it is new, and, so far as he is aware, every case in which scholars have been alleged to have suffered or died in consequence of the strain of school work has broken down upon close investigation, and been shown to be attributable to other causes.

Mr. Fitch denies that the requirements of the Education Department have been increased of late years, or that more time is devoted to instruction now than formerly; and as regards the detention of the children in schools after hours, Mr. Fitch complains that Dr. Browne does not mention the names of the schools where he found this to be the case, or the names of the teachers who said that they were obliged to keep the children in in order to satisfy the requirements of the inspectors and obtain a sufficient number of passes. The schools in which the best results are obtained are those in which detention for the purpose of preparing lessons is wholly unknown.

Mr. Fitch absolutely disbelieves Dr. Browne's statements about the effect on the children's minds of the examination and says that on the contrary the children look forward to them with great eagerness.

As regards the work that is expected of backward children, Mr. Fitch points out that the same is not expected of them as of other children of their own age, for the simple reason that the more clever children get promoted, leaving them behind. Home lessons seldom require more than half an hour to prepare, and are in less general use at the present time than at any period during the last twenty years.

He objects that Dr. Browne states that teachers have at their conferences and associations expressed their disapproval of over-pressure, without taking the trouble to verify or correct the anecdotes, rumours, and resolutions of local meetings, on which such statements are based.

As regards the payment by results, he contends that Dr. Browne is entirely under a misapprehension in his remarks,

as it is the managers of the school and not the teachers who are paid by the results, and the results do not refer to the examinations alone, but to the general discipline and conduct of the school. In conclusion he does not hesitate to say that every one of Dr. Browne's judgments appear to be hasty and inaccurate and arrived at by a loose and partial method of enquiry. "There is," he says, "in Dr. Browne's paper much strong assertion, but there is not a line which seems to me to deserve the name of 'proof.'"

THE PRESS ON DR. CRICHTON BROWNE'S REPORT.

The *Times* says:—"The report of Dr. Crichton Browne is undoubtedly full of interest, and it is written with much literary ability. But it asserts a foregone conclusion in almost every page, its reasoning is so deplorably loose and inconsequent, it contains so much irrelevant matter, and its style is so rhetorical, not to say florid, as to deprive its conclusions of much of their weight and authority. This judgment is strengthened by the perusal of Mr. Fitch's temperate and able memorandum, in which Dr. Crichton Browne's qualifications for his task are examined, his methods of inquiry criticised, and his alleged results subjected to a searching but fair examination. A comparison of the two in tone, temper, sobriety of language, and cogency of reasoning will lead inevitably to the conclusion that the Education Department may far more safely be trusted in the matter of over-pressure than Dr. Crichton Browne."

The *Daily News* says:—"Dr. Crichton Browne has indicated very forcibly and very vividly what the dangers are against which educationists should be scrupulously on their guard; but he has invested these imaginary dangers with the character of reality. There may occur a few cases of over-pressure; it would be strange if among four million children this were not the case. But we are convinced that such instances are extremely few and far between. The elementary curriculum is certainly adapted, even to the capacity of slow and dull children, and the hours are not by any means too long."

The *Daily Telegraph* is "not surprised that the report has been kept back so long, for it certainly gives a very startling account of the injury to health caused by the excessive education of weak, stunted, sickly, and ill-fed children in our great cities and towns. Though the report may be 'sensational,' the result is due not only to Dr. Browne's style, which is fervid, but to the facts. We are forcing upon children physically unfit an education suitable only for well-fed scholars. That is a cruelty which no official apologies can explain away."

The *Globe* says that it is notorious that in all schools of all classes there is over-pressure, and that if Dr. Crichton Browne had seen no signs of it, he must have been dishonest or blind. This is a medical question, and the right course for the Government would be to institute a medical inquiry, to decide the issue between themselves and Dr. Browne. It will be deplorable if the controversy is allowed to end with an appeal from the Education Department to its own officials, who, acting no doubt in entire good faith, cannot help seeing with official eyes.

The *Pall Mall Gazette* affirms that no one can read the report without being painfully impressed with a new sense of the grim realities of life in London. Dr. Browne may be as mad as any of his patients, as the *Times* almost suggests, but he has done good service in startling the public by so lurid a picture of what in some easily conceivable circumstances must be the inevitable result of the working of our educational machinery; his contrast between the starved, rickety children of our slums and the hardy bairns of the Scotch peasantry, is painfully suggestive of a great flaw in our social organisation.

The *Echo*, claiming to speak with full knowledge of the inner working of Board Schools in more than one locality, does not hesitate to say that everywhere teachers could pick out children who in their judgment ought not to be forced up to examination, and that in such cases the teachers do not feel free to act in accordance with their judgment. The *Echo* thinks it would be advantageous to obtain the appointment of a medical man, if possible, on each Board of Managers. The powers of managers have been somewhat increased of late; and perhaps Dr. Crichton Browne's report may stimulate them to greater activity. If managers, however, take action, they must take care to do so long before the annual examination. It is of no avail to withdraw a child on the eve of the visit of the inspector; where over-pressure exists it is in the preparation for that visit.

The *Leeds Mercury* says:—"We fear that Dr. Crichton Browne's report on over-pressure in schools is conclusive as to the need of relaxation of the present system of cramming information into children of tender age. The difficulty, however, is to draw the line between what should and what can be done, and possibly it will be found that the ultimate responsibility must rest with the parents and not with the teachers. The latter might easily be discouraged into a listless indifference, which would be more fatal than the present stimulation. But parents, when they take the trouble of giving attention to the matter, may easily see that the demands upon their children are not beyond their capacity."

PHARMACOLOGY AND THERAPEUTICS.

Treatment of Diphtheria.—Recent numbers of the *New York Medical Journal*, and of the *Boston Medical Journal*, have contained several communications on this subject, chiefly with reference to the use of large doses of mercuric chloride, a method which appears to have originated with Dr. G. A. Linn, and which was afterwards so warmly endorsed by Dr. Wm. Pepper, of Philadelphia, as to have become known as Pepper's treatment. Dr. Thallon points out that the drug has hitherto been used in two ways. (1) As a local application (spray or wash). (2) As a constitutional remedy. He is sceptical as to the value of local treatment, except that of a soothing character. As regards the second method, he points to Koch and Sternberg's experiments which prove that the addition of one thirty-thousandth part of corrosive sublimate will arrest decomposition in bacterial fluid outside the body, while one twenty-thousandth will effectually sterilize it; and, having regard to the relative proportions of blood and body-weight in the individual, to the natural disease-resisting power of living tissue, to the fact that the elimination of the drug is slower than its absorption (Mayençon), and that it therefore possesses a cumulative action, and its value as an "aplastic antiphlogistic" (Robt. Hamilton), he asks whether it is entirely out of the way to suppose that during some period of the treatment by large doses of the perchloride, there may be enough of the salt circulating in the blood—either free or in combination—to arrest, or at least to modify, the septic process? The doses should be large, frequently repeated, and *freely* diluted. He usually employs one or other of the following formulæ:—(1) ℞ Hydrarg. Bichlor, gr. ss; Tinct. Ferr. Chlor., fl. ʒ iij; Glycerin. fl. ʒ ss., Aq. ad. ʒ iij. M. Sig. fl. ʒ j, as directed, in water. (2) ℞ Hydrag. Bichlor. gr. ss., Vin. Pepsin., Elixir Bismuthi, aa., ʒ jss., M. Sig. fl. ʒ j, as directed, in water. Each teaspoonful thus contains gr. $\frac{1}{40}$. The condition of the false membrane is the best guide as to increasing, continuing, diminishing or stopping the remedy. Several cases are given in which this treatment proved valuable; no toxic effects were observed. In the sloughing sore-throat of scarlatina a similar beneficial action was noted. Dr. A. Jacobi objects to the use of pilocarpine, believing that it sometimes hastens the fatal termination by inducing cardiac failure. In certain cases steam-inhalations are of great value, but care must be taken that the patient is allowed abundance of fresh air at the same time; he is also convinced of the utility of turpentine vapour (a tablespoonful of the rectified spirit or oil may be poured into water heated over a lamp or stove, every hour or oftener). The treatment by bichloride of mercury he has found very satisfactory as a rule; to infants half-a-grain (sometimes more) may be given in the 24 hours, and this quantity may be kept up for a considerable number of

days; free dilution (one grain to a quart of water) serves to obviate salivation, stomatitis, and gastro-intestinal disturbance, but should these occur, inunction of the oleate of mercury may be substituted for the internal administration of the bichloride. Dr. J. L. Smith is impressed with the importance of alcohol in the treatment of certain cases; he had often known a child one year old take with advantage as much as a teaspoonful of brandy or whisky every hour. Mercuric cyanide, favourably reported of by Dr. Erichsen, of St. Petersburg, some years since, in doses of gr. $\frac{1}{96}$ to gr. $\frac{1}{48}$, has recently been again advocated by Seledén of Stockholm, who gives, every hour or half hour, one teaspoonful of a solution containing gr. $\frac{1}{10}$ to the ounce, which is also to be used as a gargle. Dr. G. A. Linn states that suffocation from obstruction of the air-way—of which there is danger when the diphtheritic membrane invades the larynx, causing croup—is mainly due to a spasmodic condition of the glottis, and can be relieved by giving chloride of gold, which is a specific in simple croup. It acts like a charm, is tasteless, and causes no nausea. It should be given dissolved in distilled water, the medicine being dropped into a glass, and the use of a spoon avoided. The dose for a child 2 years old is from one-fiftieth to one-thirtieth of a grain every hour until relieved. In diphtheritic croup it should be given in conjunction with bichloride of mercury. Of the latter salt, Dr. Linn gives one-twentieth to one-twelfth of a grain every three hours to a child 2 or 3 years old, and one-eighth of a grain to an adult. In mild cases it should be given thus to the end of the third day; in malignant cases for two or three days longer.

The Treatment of Pulmonary Affections.—In a paper on the local treatment of the respiratory organs in the *Liverpool Medico-Chirurgical Journal* for July, Dr. F. T. Roberts points out the importance of getting a patient to pay voluntary attention to the acts of breathing and coughing. In many acute pulmonary affections, it was better that the patient should be left at rest, and not be frequently made to breathe deeply for the purposes of clinical examination. On the other hand, there were cases in which it was important to recognise the necessity for energetic respiratory action, so as to open up and prevent the collapse of the smaller air-tubes and air-vesicles. The placing the patient in a suitable posture would materially aid in this matter, and sternutatories and emetics acted in the same way. This line of treatment was indicated where there was a tendency to hypostatic congestion, also in some cases of phthisis, to prevent the possible risk of further infection.

The Hydrobromate of Homatropine.—In a paper on inflammation of the iris, read by Professor Reynolds at the Kentucky Medical Society (*Philadelphia Medical Times*, June 28th), he expresses the opinion that sulphate of atropia will have to be abandoned as a mydriatic in consequence of the violent inflammation and the increase of tension of the eyeball which it frequently gives rise to. Fortunately, he adds, the hydrobromate of homatropine produced by synthesis, by "that prodigy in science, Marck," well supplies its place and is unattended by its dangers. It is, indeed, more promptly and powerfully efficient in dilating the pupil and suspending the accommodation of the eye, and more readily relieves the pain of ciliary neuralgia. "I have gradually come to rely upon the anodyne properties of this drug, because, in my experience, its soothing effect is more persistent than that of atropia, while the therapeutical indications are the same." Its expensiveness is the only objection, as it is now retailed at 75 cents a grain, which is dissolved in a dram of water; but a single drop of the solution is enough for one application. It may be applied in severe cases of pain from acute iritis every five minutes until the pain abates, and that for an indefinite time without producing any constitutional disturbance. In the healthy eye the effects on the pupil disappear in from 24 to 30 hours, while those of the sulphate persist from 8 to 14 days.

Iodoform in Diabetes.—In Seguin's *Archives of Medicine* for April, Dr. Sara Post reports in considerable detail two cases of diabetes in which she tried Moleschott's iodoform treatment, with the result of "showing coincident diminution of sugar and urea, together with an increase of weight; also and more especially showing that toxic doses of the drug are unnecessary, and, further, that they are prejudicial to its therapeutic action." After noticing also what has been done by other observers Dr. Post thus terminates her paper, "(1) Iodine in doses of from 1 to 2 grammes per day, has diminished the sugar and urea, and has increased the weight in two moderately severe cases; (2) The therapeutic influence of the drug was limited to the first few weeks of its use; (3) Increase of sugar and of urea with diminution of weight accompanied the iodoform toxæmia in both cases; (4) The toxic symptoms were anæmia, salivation, diarrhœa, agitation, trembling, choreiform movements, sleepiness, and paresia. To conclude: It is proposed that in iodoform treatment of diabetes, systematic interruption to the medication should be made. With a dose of one gramme in the twenty-four hours, the interruption may be made at the end of from one to two weeks; the intermissions may consist of from one to two weeks, and the entire quantity may be given in a single dose, securely sealed and taken at night."

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE XV.

Appliances for Minimising the Dangers to Health and Life Incident to Certain Trades.

The enormous power exerted by the circular saw, the steadiness of its movement and the ease with which its action can be guided and controlled, has led to the extension of its application to nearly every cutting operation from sawing timber to ivory carving, the saws themselves or "drums" ranging in diameter, according to circumstances, from a couple of yards to the third of an inch. As might have been expected accidents have increased in proportion, and the loss of one or more fingers is of frequent occurrence. Men thus mutilated may be seen in any workshops, but amputations of arms or hands are by no means uncommon, and occasionally a man, stumbling over the heaps of sawdust, has fallen on a saw revolving 1,200 times in a minute and been literally cut in two.

Other accidents, sometimes of a fatal character, are caused by the jumping or the recoil of the timber, by knots or other hard bodies flying out and striking the heads of the men, and, especially where metals are the materials operated on, by dust or filings entering the eyes with some force.

To prevent such accidents is not difficult, and two models of circular saw benches are here exhibited, provided with guards constructed on very different principles. That shown by Mr. J. B. Lakeman, H.M. Inspector of Factories (1316), is in the form of a roof protecting the upper half or more of the segment of the saw exposed above the bench. It consists of a sheet of iron of suitable width following the curve of the saw, and then bent off horizontally at either end, and is capable of lateral, horizontal and vertical adjustment.

The other (1319), by Messrs. Clayton and Shuttleworth, of Lincoln, consists of a narrow strip of sheet iron in the same plane as the saw which it encircles, through about two-thirds of its circumference. It is connected by a double crank to the axis of the saw, and to a weight which somewhat more than counterpoises it. It is thus capable of revolving around the saw so far as to cover the whole of the exposed semi-circumference or to uncover the working quadrant. It is adjusted by a clamp to any desired position, but when released from the clamp the weight of the counterpoise carries it backwards and uncovers that part of the saw.

Each, no doubt, will be preferred under certain circumstances; Mr. Lakeman's effectually shelters the workman from accidents of every kind, but the other, while guarding the cutting edge of the saw, does not conceal it from view, an obvious advantage in carving, cutting out the teeth of

wheels for watches, and other complicated and delicate operations.

Mr. W. Clark, of Plumstead, exhibits a model of an apparatus for drawing dust and foul air from grinding machines, which has already been adopted in the laboratory of the Royal Arsenal at Woolwich, but would seem calculated to effect a hygienic revolution in every department of grindery. Beneath each grinder's lathe is a hopper communicating with a horizontal pipe; these pipes enter a long rectangular chamber placed transversely, with doors or sliding flaps at each end; here the heavier particles are arrested, and from it they are removed as often as may be necessary. The finer and lighter dust passes from this chamber through large tubes to a vertical exhaust shaft in which a powerful fan maintains a strong draught throughout the entire apparatus. This shaft is kept full of spray to intercept the dust, the escape of which is further guarded against by a series of shelves fixed on either side of the shaft and slanting downwards towards the centre. The mixed dust and water runs down there in a semi-fluid form to a tank at the bottom of the shaft, whence it is drawn off from time to time.

It is much to be desired that the use of this apparatus could be made compulsory in all knife, needle, button, glass and other dry grindery works until some equally or more efficient contrivance be devised.

Professor E. V. Gardner exhibits a partial model, though unfortunately without any explanations, of his patent apparatus for making white lead, and samples of the product in the crude and prepared states. We have on several occasions commented on the manufacture as at present conducted, the failure of the most elaborate and stringent regulations and precautions to appreciably lessen its terribly fatal effects on the women employed in taking down the stacks and in carrying the pans to and from the stoves, as well as to the want of success that has attended all attempts to substitute precipitation processes, the products of which are harsh, crystalline, and unfit for finer work. Professor Gardner's process has, however, been before the world for over two years, and while the result is a soft amorphous genuine white lead, it is entirely free from danger to health, being conducted by electrolysis in closed chambers, and moreover, occupies but as many weeks as the older one does months. Should its practical success realise the hopes of the patentee, the stack process ought certainly to be made illegal after a period of a few years, since the professor would, no doubt, be willing to permit its general adoption on payment of a royalty.

Messrs. Harrison, of Hatton Garden (1327), Davis, of Kennington (1328), and Squire, of 413, Oxford Street (1329), exhibit a variety of eye, nose and mouth protectors, but however effectually these may answer the purposes for which they are designed, we believe that the real or imagined inconveniences attending their use will always stand in the way of their general adoption, and for this reason, among others, we attach more importance to means such as the exhaust system of Mr. W. Clark, which we have just described.

The interference with the respiratory and digestive functions from the faulty attitudes assumed by shoemakers in their work and their habit of pressing the last against the chest or steadying it between the feet and knees are matters of common observation. To obviate these, Mr. C. Hare, of Norwich, shows a simple but ingenious last (1336), mounted on a stand provided with a ball and socket-joint, which can be fixed in a moment in any desired position; and Mr. Sparkes Hall, of Regent Street, an upright shoemaker's bench (1337).

The Rettie Patent Seat Co., Limited, appear to have solved the problem of providing seats for shop assistants which shall not present any impediment to movement behind the counter. They exhibit (1334) a number of these attached in different positions around a dummy table and desk. The seat is hinged to the leg and this to the foot, which is fixed to the floor *beneath* the counter, and by means of a strong spiral spring the two hinges so work together that a single movement of the hand serves to bring the seat into use or to replace it completely out of the way. Of course these seats will be found convenient wherever space is limited, but to female attendants in shops their adoption would be a blessing. The address of the Company is 10, Bush Lane, Cannon Street.

Mr. Robert Adams, of 17, Blackman Street, Boro', exhibits a number of improvements in window fastenings, cord-holders, &c. (1320), among which we may mention the Toby cord-holder, which, originally intended for venetian blinds, has been adapted to fastening ropes of any size. By its use, as the inventors state, any person in workshops or warehouses can remove goods from the ground floor to upper floors without assistance, thus avoiding to a great extent accidents which occur through carelessness in leaving hold of the rope before the person at the top receives the goods. The catch is simplicity itself, but the grip is remarkably firm, and the more so the heavier the weight attached. He exhibits also a patent window, which can be instantly reversed for cleaning without removing the sashes from the frame, and a method of making sliding windows reversible to avoid the danger of external cleaning, which can be applied to existing sashes at a trifling cost.

Still better are the window-frames and sashes shown by Mr. W. W. Nichols, of 42, Luard Street, Caledonian Road, N., in Class 25 (703), which require no weights, one frame balancing the other; and his method of rendering ordinary sashes reversible, for cleaning, without removal of the beading, at a cost of 7*s.* 6*d.* per window. There are in this section a large number of appliances for minimising the dangers incident to slipping belts, and other operations connected with machinery; also, safety-lamps, steam pressure-gauges, safety-valves and plugs, governors, indicators, apparatus for use in mines, &c., too numerous, and of a too purely technical character for description in our pages.

But we cannot conclude without calling attention to the Silicate cotton, or slag-wool, spun, under C. Wood's patent, from blast furnace slag, by Fred. Jones & Co., of Perren Street, Ryland Road, N.W. It is an asbestos-like fibre, having the appearance of ordinary white wadding, perfectly incombustible, very light (one ton covering an area of 1,800 square feet, one inch thick), and inexpensive. Perfectly dry and non-absorbent, and absolutely free from organic matter, it is as the manufacturers describe it, "fire proof, frost proof, sound proof, and vermin proof," as well as a bad conductor of heat. It seems likely to supersede nearly everyother material for fireproofing and pugging walls, floors, roofs, &c.; for lining iron buildings, and covering steam-boilers, pipes, refrigerating chambers, &c. They have also, though not exhibited here, a slag felt, made from the cotton, the adhesive medium being also inorganic, a silicate of potash, and a cement of which the slag silicate is the basis.

OBITUARY.

JULIUS COHNHEIM.[1]

Born at Demmire, in Pomerania, in July, 1839, Julius Cohnheim pursued his University studies at Berlin, Würzburg and Greifswald, and received his diploma in 1861. Even during his studentship he engaged in the study of pathological questions, which were afterwards to occupy so much of his attention, and a translation of his inaugural dissertation on Inflammation of the Serous Membranes appeared in the 22nd volume of Virchow's *Archiv*. Chosen, in 1864, as assistant in the Pathological Institute of Berlin, by Virchow (who had the melancholy duty of announcing the news of his death at the Copenhagen Medical Congress), he laboured hard at minute and pathological anatomy, and had already acquired a high reputation when in 1867, on the appearance of his celebrated treatise "Ueber Entzündung und Eiterung," his name became known to the whole scientific world. This produced a true revolution in the study of pathological anatomy, and years hence, when the history of the doctrine of inflammation comes to be written, must be regarded as an "epoch-making" work. At this scientific epoch, its

[1] By Prof. Wittich, in the *Berliner Klinische Wochenschrift*, Sept. 3.

author devoted himself almost exclusively to experimental enquiry with results unsurpassed by those of any of his contemporaries. Receiving a summons to Kiel, in 1868, he there held the Chair of Pathological Anatomy and General Pathology until 1872, when he repaired to Breslau, as successor to Waldeyer. There, during the winter of 1872–73, he was obliged to suspend his teaching and resort to the South, on account of an attack of aphonia accompanied by great debility. Restored for a time to health, he resumed his labours with all his former energy, and this is to be regarded as the most fruitful period of his too short career. Although tormented at times by severe attacks of gout, his capability and love of work were something wonderful; and now students assembled around him in crowds from all parts of Germany. Now appeared his important essay on the medulla of bones in pernicious anæmia, and other works on the pathology of the circulation. He enlarged and corrected his former work on embolism, and in collaboration with other enquirers produced new essays on the subject; and it was at Breslau that he brought out, in 1877, the first volume of his great work on General Pathology. The appearance of the second volume was delayed until 1880, owing to his having entered upon a wider sphere of action at Leipzig, in 1878. This book will long remain an object of the most industrious study by all those who earnestly occupy themselves with the questions of general pathology. It is a work most fertile in ideas, written in a highly attractive style, rich in material facts, and distinguished above all by the abundance of the suggestions which it contains. Although in the great progressive march of pathological enquiry this or that view may have to be modified, it will in the distant future still constitute the starting-point in medical enquiries. Although the preparation of such a book occupied much of his time, other remarkable work was published, and especially in collaboration with Schulthess-Rechburg and Charles Roy. In his Institute there was always a series of pupils engaged in experimental research, and Cohnheim himself produced two somewhat more popular essays on the Problems of Pathological Anatomy, and on the Contagiousness of Tuberculosis. This last essay presented the subject with great precision, and his views were soon afterwards confirmed by Koch's discovery.

Cohnheim's strength now began to give way. The attacks of gout became more frequent and more severe, and nutrition failing him he visibly wasted away, and he was obliged to withdraw more and more frequently from his beloved teaching and suspend his work at the Institute. His mental vigour, too, gradually slackened, especially since he had become subject to severe uremic attacks and asthma. On the 15th August he quietly sank, and the autopsy disclosed granular kidney with deposit of urates, and a "colossal" hypertrophy of the heart. Those of his joints which were more frequently the seat of severe attacks of gout, were found in an entirely normal condition, and quite free from any gouty deposit. As regards Cohnheim's scientific disposition, it always led him to go to the bottom of things, and seek out the traces of pathological processes, and he had no taste for the investigation of what are called "rare cases." He thought that the most frequently occurring morbid processes possessed the highest interest, and he pursued with eagerness the study of such subjects as inflammation, venous stasis, embolism, &c., hence the doctrine of tubercle, the commonest of diseases, always possessed a powerful attraction for him. He preferred the experimental mode of investigation, under the idea that the complicated conditions of pure observation may be simplified by becoming separable in their elements, and so rendered more accessible to investigation. In this way the physiologists have reaped such splendid results, and he felt himself strongly attracted to their methods, owing, in some measure, to his intimate friendship with some of these enquirers. But he was no mere imitator of known physiological methods, but multiplied and improved these independently, according to the requirements of pathology. His earlier important histological and his numerous communications on pathological anatomy, show his intimate acquaintance with anatomical methods, to which he may have later attached less importance. The new ætiological direction of pathology attracted also his strong sympathies; and his views as stated in his Pathology show that long since he was on the side of those who attribute to micro-organisms an essential part in the production of diseased processes. At first he ridiculed the exaggerated expectations entertained; but as facts became more pressing he did not attempt to withstand their influence. It was one of the honourable characteristics of Cohnheim's methods of investigation that he never hesitated to acknowledge and rectify former errors. It would be an entire mistake if we sought to limit his significance in medical science to his published works. That influence was much more prominently exhibited in the work which he caused to be done under his superintendence in his Institute, in this way stimulating and animating his whole surroundings. This is borne witness to by the very number of the important works which were published under his direction. To his academical teaching he was fondly attached; and at the commencement of the summer session of this year, when he was unable to ascend the steps, he caused himself to be carried into the theatre in order that he might for at least a few more times discharge the duty that was so dear to him. Personally, Cohnheim was eminently a lovable, true and genial man, strongly desirous of aiding those who stood in need of his services. Professor Wittich declares that during the ten years which he had the pleasure of acting as his assistant, never did a shadow of a difference arise between them; and he believes that all his other assistants would testify in the same way.

FLEETWOOD CHURCHILL, F.K.Q.C.P.

We deeply regret to announce the unexpected death of this estimable member of the profession, which took place on Saturday morning, September 6th, at his residence, from heart disease. At the time of his death Dr. Churchill was 51 years of age. He was the eldest son of the late Dr. Fleetwood Churchill, of the last edition of whose well-known work, on "Diseases of Women," he was the editor and joint author. After entering Trinity College, Dublin, at an early age, he forsook University studies before he graduated in either arts or medicine. Having become a Licentiate of the Royal College of Surgeons in Ireland in 1853, he served for some time in the Royal Navy, finally settling down as District Surgeon and Health Officer at Simon's Town, Cape of Good Hope. After several years Dr. Churchill returned home to his native city, Dublin. In 1862 he joined the King and Queen's College of Physicians as a Licentiate in Medicine; in 1868 he became a Fellow of the College and also a Licentiate in Midwifery. As time went on he was chosen to fill such important and responsible posts as those of Physician to the Pitt Street Institution for Diseases of Children, Physician to the Clergy Daughters' School, and to the Magdalen Asylum for Penitent Females, and Assistant Secretary to the Vaccine Department of the Local Government Board for Ireland (formerly the Cow-Pock Institution, Dublin.)

In his own College also he filled various posts of dignity and responsibility. He served as Examiner in Midwifery from 1874 to 1878, and again from 1880 to 1882. He was chosen Censor of the College in 1878, acting in this capacity for two years, during the second of which he was nominated to and filled the post of Vice-President of the College. In 1882 he was once more elected Censor, and his two years' term of office had not expired when he died.

Honest, upright, modest and retiring, Dr. Churchill made for himself many friends. His kindness to poor patients was proverbial, and by them especially, as well as by a large circle of acquaintances, his premature and unexpected death will be much deplored.

Small-Pox in Glasgow.—It is satisfactory to report that for the past fortnight no fresh cases of small-pox have been registered. A full month has now elapsed since the discovery of the last case, and as the last patient was dismissed from the Small-pox Hospital on the 23rd August, the city is now entirely free from this disease, and should it reappear it must be by importation from without.

GENERAL CORRESPONDENCE.

PHARMACISTS AND THE PHARMACOPŒIA.

[To the Editor of the Medical Times.]

SIR,—Looking over the *Times* of last month, on returning to town, I noticed in its impression of the 18th, a letter from Mr. Thomas Hughes, chemist, of Llandilo, which would appear to minimize the labours of the Royal College of Physicians, and of the General Medical Council, anent the pharmacopœia, as compared with the pharmacists. "It is not," he says, "to the compilers of our pharmacopœias that we are indebted for our modern remedies, or their preparation, but to individual efforts of practical men engaged in the business," instancing amongst others, to use his own words—"Bullock's splendid preparation of Pepsine." But Mr. Hughes does not seem to be aware that it is not to a pharmacist the medical profession is indebted for the discovery of that "splendid preparation," but to a Fellow of the Royal Society, and of the Royal College of Physicians, viz.—Dr. Beale, of Grosvenor Street.

I am, Sir, Yours, &c.,
T. M. SUNTER, M.D., Oxon.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a Certificate to Practise, on Thursday, September 4th, 1884:—

Frank Edward Mathews, 4, York Place, Hill Rise, Richmond.

The following gentlemen passed on Thursday, September 11th:—

Sidney Barwise, The Oaks, St. Paul's Road, Birmingham.
Frederick Martindale Blackwood, 9, Park Place, W., Sunderland.
Milton Romaine Callender, 15, St. Thomas's Crescent, Newcastle-on-Tyne.
John Lynes, 6, Argyll Road, Kensington.
William Frederick Pedler, 1, Albert Villas, Serpentine Road, Regent's Park, N.W.
Edward Williams, 37, Great Coram Street, W.C.

The following gentleman also, on September 4th, passed the Primary Professional Examination:—

Percy Dean Bray, Middlesex Hospital

THE SOCIETY OF APOTHECARIES.—At the Preliminary Examination in Arts, held at the Hall of the Society on the 11th, 12th and 13th of September, 1884, the following candidates received certificates of proficiency in General Education, viz.:—

In the Second Division in alphabetical order—

Alfred Alexander, *Jno. Hampden Barker, Frederick Wells Beville, Edward Walter Brunton, *G. M. Robertson Bryant, *Aubrey Conway, *Basil Wiseman Conway, Frank Gillett Cory, *Sydney Robert Cross, *Horatio Nelson Crossley, Ernest Buxton Cutting, *Jno. Halliwell, William Hindle, Wm. Robert Howard, Arthur Talman Ilott, David Owen Jones, Jno. Howard Jones, Arthur Edwin Joscelyne, Percy Jno. Kingston, Charles Robert Maitland, *Fras. R. Septimus Milton, Eustace Ayton Payne, Jno. W. George Prince, Ernest James Reynolds, Reginald G. W. St. Cedd, *Eleanor Sophia Warner, Richard Milbourn West.

The following Candidate passed in Greek alone:—

Herbert Wm. Tolner Crow.

The following Candidates passed in Elementary Mechanics alone:—

Stuart A. Charles Dallas, Charles Stanger Bowker, Charles Edwin Cornwall, Jno. Edward F. Hosking, Richard J. O'Hajloran, Robert E. Franklyn Pearse, Nigel Alan Alison Trenow, Leslie Herbert Walsh.

Those marked * passed also in Elementary Mechanics.

THE NURSING STAFF OF THE ARMY.—A Royal warrant has been issued amending the provisions of the warrant of the 10th of June, 1884, relating to the nursing staff of the Army. The new warrant directs that Art. 298, as regards the pay of lady superintendent of nurses, shall stand amended as follows:—Lady superintendent of nurses, 150*l.*, increasing by 10*l.* yearly to 200*l.* a year, with an additional allowance of 50*l.* a year to the lady superintendent of the Royal Victoria Hospital, Netley, for training the nursing staffs and carrying out such duties as the Director General of the Army Medical Department may from time to time direct. The following is to be added after Art. 776:—A senior nurse acting as superintendent shall receive pay at the rate of 20*l.* a year, in addition to her wages. The pay of the woman servant appointed to attend on the nurses at each hospital shall be at such rate (not exceeding 25*l.* annually) as the Secretary of State shall determine. The following is to be added to Art. 982:—The lady superintendents at the Royal Victoria Hospital, Netley, and at the Herbert Hospital, Woolwich, retired pay at the rate of 20 per cent. of their salaries, after ten years' service, rising by 2 per cent. for each additional year of service up to a *maximum* of 50 per cent. An acting superintendent or nurse retiring without having previously obtained permission to do so shall forfeit all claim to pension.

NAVAL MEDICAL DEPARTMENT.—In accordance with the provisions of Her Majesty's Order in Council of the 1st of April, 1881, Fleet-Surgeon A. M'Donald, M.D., has been placed on the retired list of his rank. The following appointments were made at the Admiralty on September 6th:—E. J. Sharood, Fleet Surgeon to the *Agamemnon;* H. M. Nash, Staff Surgeon to the *Rapid;* J. L. Bagnall Oakeley, Surgeon to the *Lion;* Edward Ferguson, Surgeon to the *Agamemnon;* J. B. Clibborn, Surgeon to the Plymouth Division, Royal Marines; and J. E. H. Williams, Surgeon to Plymouth Hospital.

EGYPT.—Surgeon-Major F. A. Churchill, of the Army Medical Department, has arrived at Wady Halfa from Cairo, and assumes the duties of Principal Medical Officer to the British troops there. Several medical officers are now *en route* to that place in view of the concentration of troops there.

CHOLERA RELIEF.—The Mayor of Marseilles has written to Mr. Stuart Cumberland accepting his offer to give special thought-reading demonstrations for the benefit of the widows and orphans of the cholera victims in Marseilles, Toulon, and the neighbourhood.

RICHMOND SANITARY IMPROVEMENTS.—A new departure was recently inaugurated, by the opening of a dust destructor for the disposal of the dust and refuse of the parish, which, as usual, has proved a most burdensome material to get rid of. The destructor, which is erected on a piece of waste ground on the north side of the railway, is the invention of Mr. Stafford, the borough engineer of Burnley, where the system has been in operation for some little time past with great success. The buildings consist of a central shaft, 90 feet in height, with two furnaces at the sides in the shape of a beehive, the flues from which carry off the smoke and gaseous matter to the chimney and create a thorough draught. Both the first cost and the subsequent working of the destructor seem to be on eminently economic principles, the expense of erection being about 70*l.* without the shaft, while it is calculated that one is sufficient to consume the refuse of a town of 20,000 inhabitants. To effectually destroy all the objectionable matter produced by a town of 70,000 inhabitants, three destroyers would be necessary, costing a total of 210*l.*, or about 3*l.* per 1,000 of the inhabitants, or at the rate of 30*l.* per 1,000 loads of refuse. The Richmond surveyor calculates that the 3,920 houses in the town will henceforth, be cleared weekly with a saving of 374*l.* per annum upon the present system of collecting every fortnight without the destructor. The experiment of Saturday last certainly showed that the furnaces dealt with the refuse in a most complete and satisfactory manner, not even objecting to consuming a heterogeneous mass of unconsidered trifles, such as preserved meat tins, bottles, an iron shovel, and the like. Moreover, the consumption of coal is small, and the little smoke issuing from the shaft appears to be unobjectionable. The residue of the burnt rubbish should be a set-off to the cost from a commercial point of view, consisting as it does of a hard metallic-ringing clinker, which will be admirably adapted for road foundations, as well as furnishing excellent material for builders' mortar. An important experiment has been tried at Burnley of

consuming a mixture of a ton of ashes to half a ton of excreta, both of which were destroyed in an hour and a quarter with no unpleasant remainder. In addition to the destructors now at work at Burnley and Richmond, others will shortly be in operation at Leicester, Birkenhead, and Batley, while Bradford, Worcester, Cambridge, and Bournemouth will probably adopt the system. A vast improvement to the public health can hardly fail to be realised, when we think not only of the unsavoury areas of parish waste grounds, but of the still more dangerous, because concealed, habit of erecting rows of houses upon a *ci-devant* kitchen midden, or filling up the foundations with the contents of the dust-bin. It is not too much to say that builders, by so doing, have caused the death of many thousand occupiers.

Recent Legacies.—Charlotte Baroness de Rothschild, the widow of the late Baron Lionel Nathan de Rothschild, has left the following legacies:—To the London Hospital and the Evelina Hospital, 10,000*l.* each; to St. George's Hospital and to the Jewish Ladies' Lying-in Charity, 5,000*l.* each; to the West London Hospital, Hammersmith, the Jews' Hospital and Orphan Asylum, Norwood, and the Clementina Hospital at Frankfort, 3,000*l.* each; to the Jewish Convalescent Home, Norwood, the German Hospital, Dalston, and the Metropolitan Free Hospital, 2,000*l.* each; to the Buckinghamshire Infirmary at Aylesbury, the Royal Sea-Bathing Infirmary, Margate, the Hospital for Incurables at Putney, and the Earlswood Asylum, 1,000*l.* each. The late Mr. Edwin Cox, of 11, Rochester Terrace, Kentish Town, has bequeathed 500*l.* each to the Royal Free Hospital, Earlswood Idiot Asylum, the City of London Truss Society, the Hospital for Consumption and Diseases of the Chest at Brompton, the Cancer Hospital, Middlesex Hospital, Westminster Hospital, Charing Cross Hospital, and St. Mary's Hospital.

Church Parade.—In support of the funds of the Great Northern Central Hospital, Caledonian Road, on Sunday, the 7th inst., "a grand demonstration and church parade" was held under the auspices of the amalgamated, friendly, temperance, and trade societies. A procession was started, at 2 o'clock, at the Manor House, to proceed to Holy Trinity Church, Cloudesley Square, marshalled by Messrs. Godden, Clarke, and Marchant. In the procession were some 50 or 60 banners appertaining to temperance societies, whilst flags belonging to trade and other societies were profusely displayed. The members of the demonstration carried collecting boxes for the reception of donations towards the most deserving institution for whose benefit the day's proceedings had been inaugurated. Starting from the Manor House, the procession moved down the Seven Sisters Road into Holloway Road, and along the Camden and Caledonian Roads, and on to the church. The full order of procession was as follows:—Metropolitan Police, the 11th Middlesex Rifle Volunteers' brass band, Ancient Order of Shepherds, Manchester Unity of Oddfellows, Improved Order of Old Friends, Loyal Ancient Order of Shepherds, Ancient Independent Order of Oddfellows, United Order of Comical Fellows, Fraternal Brothers, Buffaloes, Druids, &c. After divine service, which was well attended, and at which an appropriate address was delivered, the processionists re-formed, and returned by various routes to a point at which they broke off for their respective homes.

Death of Dr. Joseph Janvier Woodward, U.S.A.—Although it was generally known that Surgeon Woodward had been on sick leave for several months past, the news of his death, which occurred on the 18th ult., will come as a shock to the profession, for he was little more than fifty years of age, and his brilliant career might well have been expected to have continued for many years to come. He graduated at Philadelphia and practised medicine in that city until he was appointed Assistant Surgeon in the Army in 1861. He served with distinction in the war and contributed much to the advancement of his profession. His observations on camp-dysentery and on typho-malarial fever, for instance, were of a nature to throw positive light on many difficult questions connected with these affections and their management in armies. His original work in microscopy, and more particularly in photo-micrography, after the termination of the war, was such as to give him a world-wide reputation; and, finally, the excellence of the literary work done by him in conjunction with the late Surgeon Otis, in preparing the early volume of the "Medical and Surgical History of the War of the Rebellion," helped not a little to give the work the character which was at once accorded to it wherever medical science was cultivated.—*New York Medical Journal*, August 23.

St. John Ambulance Association.—A report has been received at St. John's Gate stating that at the recent visit of the Prince and Princess of Wales to South Shields, to open the Coble Dene Dock, the St. John Ambulance Corps, connected with the local Volunteer Fire Brigade, were stationed at convenient places with appliances for rendering "first aid" in the event of accidents owing to the great crush of people. Fortunately their services were not required, except in a few cases of fainting, but the workmanlike appearance of the corps attracted the attention of their Royal Highnesses, and the Mayor of Gateshead and other leading officials expressed their satisfaction at its evident readiness for any emergency. It is much to be regretted that every large town does not follow so excellent an example.

The North West London Hospital.—As was recently announced, the Committee of Management of this hospital requested Sir T. Spencer Wells, Bart., Mr. John Marshall, F.R.S., and Mr. Ernest Hart to act as a committee of reference, with a view to the remodelling of the laws and regulations of the hospital. These gentlemen have now, in conference with the Committee of Governors of the hospital, approved a revised constitution, which they have declared satisfactory, and which they commend to the public and the profession. Applications for the vacant positions on the staff should be made to the Secretary at the Hospital, Kentish Town Road, on or before Thursday, September 25th.

Kidderminster.—The outbreak of typhoid fever at Kidderminster is of a more widespread character than has been stated. There are about 150 cases, and the majority of these appear to have broken out within a period of three days, just at the time of the high temperature three weeks ago. Though the higher parts of the town are most affected, there are cases about the low-lying parts as well, and, in fact, the general distribution of the fever is one of the significant circumstances connected with the outbreak. It evidently points to some common origin, such as sewer gases or a tainted water supply. The borough went to a great expenditure some years ago for sanitary works, and was supposed to be well provided in regard both to sewage and water. A system of flushing the sewers is carried out, and all analyses of the water which have hitherto been made have shown the quality to be unimpeachable. A further analysis is now ordered. The Medical Officer of Health has suggested to the Sanitary Authority the free opening of the Infectious Hospital to non-pauper cases of fever, but so far the Authority has demurred to do so. It is understood, however, that if all the medical men in the town recommend such a step, it is left to the Mayor to decide finally whether it shall be done.

Health of Glasgow.—During the fortnight ending 30th August, there were registered 512 deaths against 500 in the previous fortnight. The deaths from diarrhœa have been 80, almost double the number in the preceding fortnight; in fact, since the same period of the year 1878, there have not been so many deaths from diarrhœa. The temperature experienced then was similar to the recent sultry weather in Glasgow. The death-rate alone from this cause was four per cent. For many years past the fatal effect of this malady has not been so great. At present there are 187 cases of scarlet fever, 68 of measles, 43 of enteric fever, 37 of whooping cough, and 12 of typhus fever, making a total of 347 cases in the hospitals of the Council, as compared with 338 in the preceding fortnight.

Glasgow—Great Destruction to Fish in the River Allan.—A tank of creosote oil, belonging to the Caledonian Railway Company, weighing about ten tons, on its

way north, on Saturday last, was shunted to a siding at Blackford, close to the River Allan. No precautions seemingly were taken to prevent the liquid from finding its way into the river, and the result is that all the fish in the Allan, south of Blackford, as far as the Forth, have been killed.

Unsound Meat at Glasgow. — A female provision dealer was fined in the sum of three guineas, with the alternative of 30 days' imprisonment, on Saturday last, at the Eastern Police Court, Glasgow, for exposing for sale 2 cwt. of unsound pork on the 9th instant. A police sergeant and inspector stated that while proceeding along the street, they "felt," a strong smell coming from the meat which was spread out on a board in front of the shop. It was ticketed as "fresh in." Medical evidence was adduced showing that it was quite unsound. The magistrate ordered the pork to be destroyed.

Galashiels Water Supply.—At a recent meeting of the Corporation, a communication was read from Dr. Hardesty, medical officer, giving it as his opinion, in view of the possible outbreak of cholera, that all the wells in the town should be closed as being dangerous to health if used for dietetic purposes. The Inspector of Works had been previously instructed to procure samples of water from a number of wells, and test them by the permanganate process. Nine of these samples were placed on the table for inspection, all, or nearly all, presenting a beautiful purple hue, giving little or no indication of contamination from sewage matter. It was stated that although a most abundant supply of excellent water has been introduced for a number of years, many of the wells are still in common use. After some consideration, it was resolved to take immediate action on Dr. Hardesty's report, and order the closing of every well in the town, to the number of about a hundred.

Montrose.—On September 2, at the monthly meeting of the Montrose Asylum and Infirmary Board, the convener of the House Committee of the Infirmary reported that the trustees of the late Dr. Joseph Glen, London, a native of Montrose, had paid to the Institution 200*l.* bequeathed by that gentleman.

Retirement of M. Fauvel.—Ushered in without any explanation or comment, among the paragraphs of the daily journals is the statement that, by a ministerial order, Dr. Proust, *agrégé* of the Paris Faculty, and Assistant-Inspector of the Sanitary Service, has been appointed Inspector-General of this service, in place of Dr. Fauvel, who has retired on his pension with the title of Honorary General Inspector. The *Revue de Thérapeutique* (Sept. 1), commenting upon this announcement, observes that when the circumstances in the midst of which this resignation has been made are remembered, it is to be regretted that not a word concerning the motives of its being made is uttered. It cannot be regarded in the light of a disgrace, for the greater number of what Dr. Fauvel calls his "prophecies" concerning the cholera have been verified with tolerable exactness. It is therefore satisfactory to learn that his shattered health, or some other personal motive, obliged the inspector to give in his resignation during the full course of the epidemic.

Cremation Societies in the United States.—There are a number of cremation societies in this country, but only one crematory, that at Washington, Pennsylvania, and the difficulty and expense of sending bodies to that place will prevent, for some time at least, any extensive adoption of this mode of disposing of the bodies of the dead. There is but little doubt, however, that the number of those who favour cremation is steadily increasing, and it will not be long before other furnaces are built. A few days since, a meeting was held in New York, and plans were suggested of a public subscription to secure money to build a crematory near New York. Boston and Philadelphia have each cremation societies, and before another year has elapsed will probably have crematories.—*Philadelphia Medical Times*, August 23.

Death from Hydrophobia.—A woman died in University College Hospital last week of hydrophobia, appearing after an unusually long incubation period, viz., twelve months.

The Virus of Rabies.—In answer to a query addressed to M. Pasteur by Dr. Heath, of New York, Dr. Rouse, the assistant director of M. Pasteur's laboratory replies—"In an animal that has died of rabies there is nothing virulent but the saliva, the salivary glands, and the nervous system. The blood, the muscles, and the viscera do not appear to contain the rabies virus. I do not know of an instance of the inoculation of rabies in the performance of an autopsy. The attenuated virus which you ask for is still under investigation. Thus far, it has only been tried on dogs, and in the present state of our knowledge M. Pasteur would not dare as yet to make trials with it on man."—*New York Medical Journal*, 23.

Llandudno.—Lady Augusta Mostyn laid the corner stones of a Cottage Hospital which is in course of erection at Llandudno, on September 4th, as a public memorial to the late Mrs. Nicol. The Bishop of Bangor delivered the address. The cost of the building will be about 4,000*l.*

APPOINTMENTS.

Bonnar, Thos. A., L.R.C.P. and L.R.C.S. Edin.—Medical Officer to the Bishopton District, Sedgefield Union, *vice* Mr. T. Thompson, deceased.

Claremont, Louis Bennett, M.R.C.S. Eng., and L.R.C.P. Lond.—Medical Officer to the Second District, *vice* Dr. John Hall, deceased.

Sheraton, Geo. R., L.R.C.P. Edin., and M.R.C.S. Eng.—Medical Officer to the Sedgefield District, and to the Workhouse, Sedgefield Union, *vice* Mr. T. Thompson, deceased.

VACANCIES.

County Asylum, Lancaster.—Assistant Medical Officer. Salary, £100 per annum, increasing £10 annually, with board, &c. Candidates must be duly qualified and registered, unmarried and under 30 years of age. Applications with testimonials to be sent to the Medical Superintendent, before September 27th.

Kidderminster Infirmary.—House Surgeon. Salary, £140 (increasing £10 per annum to £170), with residence and attendance in the Infirmary. Candidates must be unmarried. The candidate appointed to enter into a bond not to practice within six miles of Kidderminster, until after the expiration of five years from the time of the termination of his engagement. Further information may be obtained from the Secretary, to whom applications should be sent before September 26th.

National Dental Hospital, 149, Great Portland Street, W.—House Surgeon. Salary, £50 per annum. Candidates must be Licentiates of Dental Surgery. Applications, with testimonials, to be sent in on or before September 29th.

North-West London Hospital, Kentish Town Road.—Senior Physician and Senior Surgeon. (*For particulars see Advertisement.*)

Settle Union.—Medical Officer to the Clapham District, *vice* Mr. J. H. Knox. Area, 25,345 acres. Population, 1,450. Salary, £21 per annum. Also, Medical Officer to the Arncliffe District, *vice* Mr. J. Anthony, resigned. Area, 17,998 acres. Population, 362. Salary, £5 per annum.

St. Peter's Hospital for Stone and Urinary Diseases, etc., Henrietta Street, Covent Garden. — House Surgeon. The Appointment will be for six months. Honorarium, 25 guineas, with board, lodging, and washing. Candidates must be M.R.C.S., and have held the position of House Surgeon at a Public Institution. Applications with testimonials to be sent to the Secretary, on or before September 30th.

Swansea Hospital.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates must be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28.

University College, London.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

West Bromwich District Hospital.—House Surgeon. Salary, £80 per annum, with board, residence, and washing. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, &c., with not more than three recent testimonials, and accompanied by candidates' degree or diploma, and certificate of registration, to be sent to the Honorary Secretary W. Bache, Esq., Churchill House, West Bromwich, on or before September 20th.

DEATHS.

Clark, Samuel, M.D., late of Folkestone, at Tunbridge Wells, on September 14th, aged 69.

Goodall, W. P., F.R.C.S., formerly of Birmingham, at Southborough, Kent, on September 10th, aged 50.

Macarthur, T. A. C., L.R.C.S., late Army Medical Department, at Walton, Liverpool, on September 10th

Marsh, John, M.R.C.S., at Woodbridge Road, Ipswich, on September 11th, aged 63 years.

Paterson, R. H., M.R.C.S., L.R.C.P., at Gainsborough, on September 7th, aged 34.

Sharp, G. W., F.R.C.S., on September 7th.

NOTES, QUERIES, AND REPLIES.

An Old Barts. Man.—The authorities of St. Bartholomew's Hospital have discontinued the Introductory Lecture for some years past.

Dr. Nicholson.—The second preparation you mention is prescribed very largely to our knowledge, and with good results, but it would be inconvenient, if not risky, for a medical journal to give the results of comparative trials of proprietary articles. Proprietors are very grateful for favourable reports, but they are apt to show an unbecoming amount of resentment if other proprietors' articles are praised at the expense of theirs. On these grounds we regret that we cannot either ask for, or give, the information you require.

M., St. George's.—Mr. Charles Hawkins, Principal Serjeant-Surgeon to the King, was the first Master of the College of Surgeons in 1800. The late Mr. Cæsar H. Hawkins was elected a Trustee of the Hunterian Collection in 1871, with Sir John Lubbock, Bart. It was the great Duke of Wellington who was also a Trustee. Mr. Lombardi, of Pall Mall, has published an excellent photograph of the late Duke of Wellington. You can obtain most of the medical celebrities from Messrs. Barraud, of Oxford Circus, including the three you mention.

COMMUNICATIONS RECEIVED—

Prof. Gairdner, Glasgow; Mr. Henry Morris, London; Dr. Norman Chevers, London; Dr. James Oliver, London; Mr. H. A. Knutsen, London; Dr. Sunter, Hounslow; Capt. Hobson, London; The Secretary of the International Health Exhibition, London; Messrs. G. Putnam & Sons, London; The Secretary of the Apothecaries' Society, London; Dr. Willoughby, London; Dr. Guillemard, Cambridge; Our Liverpool Correspondent; Mr. Straehl-Siebenmann, London; Mr. Wynter Blyth, London; The Director-General of the Army Medical Department, London; The Registrar-General for Scotland, Edinburgh; Our Vienna Correspondent; Mr. A. W. Green, London; Dr. F. Warner, London; Our Glasgow Correspondent; Messrs. J. Bale & Sons, London; Mr. C. E. Cassal, London; The Hon. Secretary of the Cambridge Medical Society, Cambridge; Mr. J. B. Holloway, Peckham.

BOOKS RECEIVED—

Nerves and Nerve Troubles, by J. Mortimer Granville, M.D.—The Human Element in Sex, by Dr. Elizabeth Blackwell—Cryptorchidism, by Robert W. Johnson, M.D.—On the Education of European and Eurasian Children in the Plains of India, by Surgeon C. W. S. Deakin—The Practice of Surgery, by Thomas Bryant, F.R.C.S.—Suggestions to Mothers. Disease in Children, by Eustace Smith, M.D.—The National Dispensatory, by Stillé and Maisch—The Genesis of Germs — Lethargic Stupor or Trance, by A. M. Brown, M.D.—Guy Patin, by A. M. Brown, M.D.—The Origin of Contagia, by A. M. Brown, M.D.—Maupertius and Contemporary Pessimism, by A. M. Brown, M.D.—Ars Medici, by J. H. Clarke, M.D.—Report on the Sanitary Condition of Newcastle-on-Tyne, during the year 1883—Handbook for Midwives, by Henry Fly Smith, B.A.—The Clinical History and Exact Localization of Perinephric Abscesses, by J. B. Roberts, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Bath Argus—The Philadelphia Medical Times—Le Progrès Medical—Scienze Mediche—The Journal of Nervous and Mental Diseases—The Analectic—Richmond and Twickenham Times—The Western Medical Reporter—Revue de Médecine—Revue de Chirurgie—The Canadian Practitioner—The Journal of the British Dental Association—North Carolina Medical Journal.

APPOINTMENTS FOR THE WEEK.

Friday, September 19 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, September 20.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, September 22.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, September 23.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

International Health Exhibition (Hygienic Laboratory), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Common Poisons."

Wednesday, September 24.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, September 25.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, September 26.

International Health Exhibition (Hygienic Laboratory), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Bad Food."

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MEDICAL TIMES

AND GAZETTE.

No. 1787. LONDON, SATURDAY, SEPTEMBER 27, 1884.

Contents.

CLINICAL LECTURE
ON WINTER HÆMOGLOBINURIA.

By PROFESSOR NOTHNAGEL, Vienna.

GENTLEMEN—The patient I show you has a somewhat rare complaint. He says that when he goes out in the cold in winter, and his feet get chilled, he suffers from peculiar sensations; he is seized with a shivering throughout the whole of his body, and afterwards he feels hot and perspires profusely. These are febrile symptoms which remind one of malaria. The patient suffered from various acute infectious diseases during his childhood, and at the age of 18 he contracted syphilis. Three years ago he had the first of his present attacks following exposure to cold, and during the present winter the attacks have occurred so frequently that the patient is almost afraid of going out when it is cold. It is a very strange affection. He further states that during the attack he suffers from great thirst as long as the shivering lasts. We cannot conclude that this man's affection is of a malarious nature, for its occurrence is irregular and dependent upon the influence of cold. Moreover, he states that he has no attacks during the summer, but only in winter.

When one hears of such strange symptoms, one's first idea is to ask the patient what is the appearance of his urine, what is its colour. Now the patient says that on making water immediately after an attack the urine is black, but what he passes subsequently is clear. Here is a specimen of this black urine; it looks as if it contained blood. We will examine the urine, after the method of Heller, to see if this is so. We boil the urine with caustic potash, the phosphates fall to the bottom of the glass, and you see that the precipitate has a brownish red colour due to blood pigment being mixed with it. On microscopical examination we do not find any red blood-corpuscles. The urine contains albumen, for on heating it we obtain a flaky sediment. This sediment has a red colour, while the urine, when separated by filtration, is quite clear. This shows that the blood-pigment is entirely carried down by the precipitate. If we now boil the sediment with alcohol which has been rendered acid with dilute sulphuric acid, the alcohol absorbs the blood-pigment. The blood-pigment therefore exists free in the liquid and not in combination with red blood-corpuscles. In those cases in which we find blood in the urine we call the affection hæmaturia, and the blood may be derived from the bladder, from the ureters or the kidney. In all such cases we find red blood-corpuscles in the urine, and we have good reason to call the affection hæmaturia. But there exists another class of cases in which the urine is also coloured with blood, and in which you find blood-pigment too,

examination with the spectroscope showing the characteristic absorption lines of hæmoglobin. On examining a drop of the urine under the microscope, however, you do not find a sign of a red blood-corpuscle. You find instead of red blood-corpuscles a detritus which has a brown or blood red colour. We call such an affection hæmoglobinuria.

This affection occurs under different conditions, the number of which has very much augmented with the increase of our knowledge in the last fifteen years. First we observe hæmoglobinuria in cases of poisoning; for instance, with carbolic acid, or with other acids, as sulphuric and phosphoric acid; also in cases of poisoning by arseniuretted hydrogen; secondly, in burns of the skin; thirdly, in certain acute infectious diseases, as for instance, scarlet fever and typhoid. In all these conditions the affection is rare, they are *not* usually accompanied by hæmoglobinuria. But we had an opportunity of observing hæmoglobinuria in a large number of cases about ten years ago, when the treatment of consumption and carcinoma by the transfusion of lambs' blood was in vogue. It was shown that when the blood of an animal of one species is transfused into the system of one of another species, it is injurious to the latter, but when transfused into one of the same species it causes no harm. If one transfuses blood from a lamb into a dog, it may prove fatal to the latter, just as it might to a man treated in a similar way. The serious symptoms observed in such a case are to be considered as a direct consequence of the transfusion, the blood-corpuscles of one species having a pernicious influence on those of another. Landois has shown that marked hæmoglobinuria occurs in such cases, which he attributes to the fact that the red blood-corpuscles are dissolved; it is therefore an artificial hæmoglobinuria. Besides this there exists a form of hæmoglobinuria which is to be considered as a special affection, and which has been termed winter or paroxysmal hæmoglobinuria. In general, this disease is seldom met with. The majority of such cases have been recorded in English, American, and German literature; very few have been recorded in French literature, and still fewer in Russian. The disease presents the following symptoms: The patient is seized with it in paroxysms, hence the name paroxysmal. In the intervals he is perfectly well, though exhausted and weak owing to the loss of the blood-corpuscles which have been destroyed, but besides this general weakness he does not complain of anything. The attack is in most cases produced by cold, and for this reason the affection is chiefly observed in winter, whence the alternative name "winter" hæmoglobinuria. It is the effect of cold on hands and feet which especially produces the affection. Sometimes one is able to bring on an attack artificially. Rosenbach gave one of his patients a cold bath in summer and an attack resulted. The sensations of the patient in the attack are very unpleasant; he yawns constantly; he is then seized with shivering through the whole of the body which is followed by heat and perspiration (a temperature of 40° C. and upwards has been observed). The patient then passes urine which is of the colour of blood; the same colour may be noticed two or three times in the subsequent twenty-four hours and then it disappears. The albumen in the urine coagulates and forms a compact mass which rises to the surface and has a brown colour due to the blood-pigment which it contains. If you boil this sediment with alcohol rendered acid by dilute sulphuric acid, the pigment is absorbed by it, and the sediment remains uncoloured. Sometimes casts are to be found in the urine, but this is an exception; there may, indeed, be blood casts, for the hæmoglobin may coagulate while still in the urinary passages. We know by our experience in cases of transfusion that the coagulated hæmoglobin may even block the urinary passages. Sometimes hyaline casts are also to be found. When the attack has passed off the casts disappear together with the pigment, and the urine again becomes clear. The attacks may occur at different intervals, and they are very injurious to the patient, for they have the same influence as losses of blood.

How does hæmoglobinuria arise? Probably by the influence of cold. If we make blood freeze, the blood-corpuscles are destroyed, and we have then blood with a colour like lac dye. During the attack there circulates in the vessels ruby-coloured blood, that is to say, besides the red blood-corpuscles there is there free hæmoglobin; this fact was proved by the abstraction of blood by means of a cupping-glass during an attack. Clinical observation thus entitles us to suggest that it is the influence of cold which destroys the blood-cells. We believe that in these cases the red blood-corpuscles have less resistance to low temperatures than usual, and are destroyed; the hæmoglobin is said to have an influence on the vaso-motor centre, hence the shivering, followed by heat and perspiration. As to the prognosis, the disease lasts in some cases several years and then disappears suddenly. In some patients we obtain good results from anti-syphilitic treatment, even when the disease has not a syphilitic origin. Besides this the patient must have good nourishment; he must live on meat, milk, eggs, and wine, and iron must be given to him. If we do not succeed in curing the patient in this way, we must order him to a milder climate during the winter.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.
President of the Epidemiological Society of London.

(Continued from page 401.)

True Leprosy.

Such full accounts of this disease, as it occurs in India, have been given in works accessible to all English readers,[25] that I shall now do little more than state a few results of my own observation. I constantly saw cases of this disease throughout my long Indian service, and I was officially desired to make trial of (1) the cashew oil and (2) the gurjon oil upon cases in the Medical College Hospital.

The disease presents itself in natives of all ranks, seldom in the rich and well-to-do; but I have seen it in a sovereign prince and in a rich man. It is scarcely proved that it can attack Europeans. I saw, only for a moment, a boy of European appearance in whom I considered that the disease was commencing; and it was said that, many years ago, a Madras Medical Officer was leprous, and there was strong suspicion of another case; but, in India, many of the fairest "European" aristocrats are descended from native ancestors, and leprosy is not rare among half-castes.

[25] Among many others—Horace Hayman Wilson, on "Kushta," or "Leprosy," as known to the Hindus; "Transactions of the Medical and Physical Society of Calcutta," vol. i., p. 1; F. Brett, *Indian Journal of Medical and Physical Sciences*, vol. v., p. 96, N.S.; Erasmus Wilson, *Lancet*, April, 1856; Quain's Dictionary; Morehead, *op. cit.* 695; Carter, "Transactions of the Medical and Physiological Society of Bombay," No. 8, p. 5, N.S.; "Report of the College of Physicians," commented upon, from Indian experience, by N. C. Macnamara, in the *Indian Medical Gazette*, 1866—a highly valuable monograph, afterwards published in a separate form by Messrs. Wyman & Co., of Calcutta; "Anæsthetic Leprosy," by J. N., *Indian Medical Gazette*, vol. ii., p. 215, *et seq.*; Vincent Richards, "Indian Annals of Medical Science," No. xxxi., 1873, p. 303; Drs. Lewis and Cunningham, in the "Twelfth Report of the Sanitary Commissioner with the Government of India;" Mr. Peters, *Edinburgh Medical Journal*, for March, 1883.

The census report of the North Western Provinces, for 1881, gives nearly 18,000 lepers in a population of nearly 33,000,000.[26] Mr. Peters gives, upon the authority of Mr. McCorkell, C.S., a statement from the census of 1872 showing that, in the Collectorate of Belgaum, in Western India, the number of persons disabled by leprosy was 4,131 in a population of 938,750, or 0·44 per cent. Yet in the Belgaum Leper Asylum, and from its neighbourhood, Mr. Peters could only find 29 lepers to treat in 28 months. Mr. Vincent Richards states that the proportion of lepers in Balasore is said to be about one in 5,000; in the Sonthal Pergunnahs, 1 in 700; in Bancoorah, 1 in 350; in Beerbhoom, 1 in 250; and in Burdwan, 1 in 450.

The latest Bengal census returns give 8·15 per 10,000 as the proportion of cases of leprosy in that province.

The statistics given in these reports cannot be received with implicit confidence, as it is not to be supposed that returning officers can always differentiate cases. Clearly the prevalence of leprosy varies greatly in different localities. It is probably at least as prevalent in India as Sir J. Simpson has shown it to have been in the United Kingdom almost from the time of the Norman Conquest up to the reign of James the First.

The fact that most Indian leper asylums have few inmates is probably due to the almost painless character of the disease, even when it is causing the most ghastly mutilations, and, consequently, to its popularity as a qualification for professional beggary. I have not seen a very great deal of it in native bazars; but hosts of mendicants do not seek relief in the streets and by the road-sides, preferring to live upon food and alms bestowed by the wealthy with a large, if indiscriminating, bounty for which we have not always given the people of India sufficient credit.

The *Differentiation* of leprosy, especially of the anæsthetic and leucopathic form, from simple leucoderma often becomes a question of more than medical importance in India. A Hindu leper cannot inherit the estate of his next of kin, because, as one impure by reason of disease, he is debarred the sacred duty of firing the funereal pyre. Consequently, European physicians are consulted in questionable cases; here an incorrect opinion would be something worse than a clinical error. Having gained an idea of the physiognomy of leprosy from engravings and wax models, the young medical officer should, on landing in India, lose no time in visiting the leper asylum which is maintained at each of the Presidency towns. There, in an hour, he will master all that is best worth knowing with regard to the aspect and condition of the leprous.

It is especially needful to distinguish scars and simple leucoderma from the white spots of leprosy. In the dark races of India, the scar of a blister or a burn long remains white until, in course of time, pigmentation goes on so far as to leave the seat of injury darker than the surrounding skin. An old Hindu writer of mine brought me his son, a young lad, who stretched out a very suspicious looking claw upon which were large white scars. The father hastened to say that these were burns. Truly, but the cicatrices were anæsthetic. The leprous hand, wanting sensibility, had been used too freely in meddling with fire, and had been severely burnt. Surgeon-Major Peters notices this liability of the extremities of the leprous to burning while cooking, and to be gnawn by rats at night.

Dr. William Palmer justly observes[27] that cases of leucoderma are more frequently brought to notice in India than in London; first, because they attract more attention by contrast with the darker skin of the natives; and, secondly, because there is an uncomfortable feeling that the white patches may be mistaken for leper spots; but whether they are really of more frequent occurrence is, he considers, doubtful.[28] In examining cases, those of simple leucoderma may be at once set aside. There is no anæsthesia or hyperæsthesia of the white spots when we test their sensibility with a skewer-like point of wood,[29] and no second sign of leprosy, no elevation of the white patch, no enlargement of nerves, no leonine visage or conjunctival deposit or thickening of ear-lobes or of other integument, no claw-like contracted appearance of the hands nor loss of phalanges, no scleroderma, open, deeply-excavated ulcers or suspicious cicatrices. As Dr. Palmer points out, in leucoderma, both the epidermis and the true skin, with its glands, remain normal in every respect except colour. Dr. Palmer holds that, the anæsthetic being the early form of the disease, the very mildest cases of circumscribed anæsthesia of skin are to be regarded as examples of leprosy, although these milder cases often show but little tendency to assume the more severe form.[30]

When I first went to Calcutta, I saw a case in which my friend the late Dr. Allan Webb gave me some excellent hints on the diagnosis of obscure leprosy. A pilot in the decline of life appears to have become slightly disordered in mind, having sent an insolent message to his superior. I was upon a committee who had to examine him and to report upon his condition. His appearance was European, but we understood that he had a strain of dark blood. His right forearm was considerably wasted, and the fingers, especially the little and ring finger, much contracted and bunched, and hardened like birds' claws. His countenance appeared quite natural. Dr. Webb showed us that the ulnar nerve on the diseased side was thickened and nodular from the elbow downwards, and that *the ear-lobes were much enlarged, pendulous, hardened, and thickened.* Dr. Webb said that this condition of the ears is a crucial test in all cases of chronic leprosy, however obscure the other symptoms may be. I think that it is M. Marx who says that the French *cagots*, who are descended from lepers, are distinguished by not having the ear-lobes developed. Soon after I read this I noticed that one of the ear-lobes of a handsome English lady was entirely wanting, evidently by congenital defect. In my experience Webb's test has never failed, but the deposit may be slight. "Rotundity of the pulps of the ears" is one of the signs of leprosy given by Barnhard Gordon, in his early description of English leprosy, cited by Sir J. Simpson.

In June, 1883, Dr. Thin stated, at the Medico-Chirurgical Society,[31] that a bacillus had been found in Norwegian leprosy by Hansen, in the leprosy of Southern Europe by Cornil and Suchard, by Majocci and Pellizari, and in a leper from South America by Kœbner. Dr. Thin found it in three cases of Chinese leprosy, in material supplied him by Dr. Manson, of Amoy; in West Indian leprosy in tubercles sent him by Dr. Hillis, of Demarara, and in the epiglottis of a

[26] *Medical Times and Gazette*, January, 1883.

[27] "Rough Notes on the Common Forms of Skin Disease met with in Calcutta," p. 22.

[28] See Dr. A. Wood's case of "Leucoderma in a Pathan." *Indian Medical Gazette*, vol. vi., p. 178.

[29] In our own country, as late as the 17th century, a discerning public appear to have drawn a very indistinct line between those two ostracised wretches the witch and the leper. In Scotland, witch-finders were designated as "common prickers," and received a fee for each witch they discovered. At the trial of Janet Preston, in 1646, the magistrates of Dalkeith, "caused John Kincaid, of Tranent, the common pricker, to exercise his craft upon her. He found two marks of the devil's making; for she could not feel the pin when it was put into either of the said marks, nor did the marks bleed when the pin was taken out again. When she was asked where she thought the pins were put into her, she pointed to a part of her body distant from the real place."—Charles Mackay's "Memoirs of Popular Delusions."

[30] Dr. I. Newton has published, *Indian Medical Gazette*, for 1868, p. 251, some careful observations on the microscopical conditions of the structures affected in Leprosy. He found that "Leprosy is essentially an affection of the gelatine-yielding tissues."

[31] *Medical Times and Gazette*, vol. i., for 1883, p. 713.

leper patient who died in New South Wales. He also observed bacilli in the blood of a leper patient from Hindustan.

Popular opinion, in Europe and in India, has generally held leprosy to be contagious; but I am unacquainted with any indisputable facts in support of this idea. I knew a Calcutta leper, of European habits, who had been married for many years to a woman who appeared to be perfectly free from the disease. Mr. Vincent Richards mentions the case of a Mahomedan shopkeeper 70 years old, married fifty years, with two children, whose wife was not affected.

With regard to *Cause*, heredity has been frequently traced. In analysing 191 cases observed in Balasore, Mr. Richards found that, in over 44 per cent., the father was affected; in only 30 the mother; and in 13 per cent. both the father and mother: 53·40 per cent. had relatives affected by the disease. Bad food, damaged grain, and putrid fish in insufficient quantity—to use Mr. Vincent Richards' words, "any diet deficient or redundant in particular elements," are doubtless operative; but no medical man of Indian experience will agree with those who maintain that the disease is mainly due to a fish diet. Leprosy is rife in districts where fish is scarcely known; and, as Mr. Peters shows, natives whom caste prejudices deprive entirely the use of fish are victims of this disease.

Hoarseness, evidently due to laryngeal disease, has frequently been noticed in Indian lepers. In England a writ *de leproso amovendo*, Fitzherbert, Not. Brev. pp. 520–21, was made applicable to those lepers who appeared in the sight of all men that they were lepers "*by their voice*, and their sores, the putrefaction of their flesh and the smell of them." Barnhard Gordon mentions, among the infallible signs of English mediæval leprosy, "voice nasal," in the early stage of the disease, and, later on, "voice hard and barking."

Dr. James R. Jackson[32] relates the case of a leprous woman in whom ulceration, partly destroying the nasal and palate bones and removing the uvula, extended to the rima and laryux, producing œdema glottidis and necrosis of the thyroid cartilage. Laryngotomy gave relief, but she died in about a month from extension of the laryngeal mischief, and "rapid effusion into the lungs." She inherited the disease from her mother. Her brother was similarly diseased.

Until we become accustomed to treat them, we are surprised to find how readily leprous sores often heal. In 1876 Dr. Cayley successfully extracted an opaque lens in a leper.[33] Mr. Birch amputated the great toe of a leper, aged 35, and the foot of another, aged 22; both made good recoveries.

With regard to *Treatment*, I have no faith whatever in the *specific* efficacy of any lauded remedy—chaulmogra oil, the cashew, the gurjon oil treatment, in fact of any plan that had its trial and its day while I served in India.[34] Hitherto it has, I believe, been a law subject to no exception whatever, that, treat him and improve his condition to the utmost, *he who is once a confirmed leper continues to be a leper until he dies.* Some years ago the late Dr. Bhau Dhajee, of Bombay, an able physician of great experience in leprosy, brought out an atlas of very large and beautiful photographs displaying the appearance of lepers before and after treatment. To one unacquainted with this disease, nothing could well be more complete and apparently radical than the appearance of cure in most of these countenances; but one to whom the leper visage is familiar sees in these, as in many other cases of "recovery" which I have examined, that, whether the face of the leper be emaciated or fat, ugly, menacing and rugged, or smooth, pleasant and comely, it still bears the ineradicable stamp of leprosy. The fact is that, in a large proportion even of fully developed and advanced cases, cachexia may be so far removed, mainly by good feeding, as to give the patient a fat and healthy appearance. Under treatment, say by the gurjon, cashew, or chaulmogra oils, tonics, and good food, the ulcers often heal readily, and the patient's general condition is vastly improved. He was a cachectic leper, he becomes a robust leper; but he remains as essentially a leper by constitution as he ever was, and his good food, oleaginous frictions, and other comforts being taken away, he will assuredly fall back into a state of leprosy. Consequently, we cannot cure leprosy—we cannot touch the constitutional disease therapeutically—but we can make the leper fat and comfortable, and thus, doubtless, greatly prolong his life.

Unquestionably a generous diet and the free inunction of *ghee* (clarified butter) and oil after the native manner are among the leading indications in the treatment of leprosy. A poor dietary, such as is allowed in certain Indian asyla, is a great mistake and failure of charity. A half-starved, voracious dyspeptic, such as the leper generally is when we begin to treat him, requires the best food and, as his digestion improves, plenty of it. The management of English lepers in the middle ages appears to have been simple. They were strictly confined, in habits of religion, to lazar-houses, where they had a singularly liberal and varied diet.[35]

Dr. Crombie has made some interesting observations[36] on *Ainhum*, or spontaneous amputation of the fingers and toes, as occurring in Eastern Bengal.

He refers to the publication of Drs. Tilbury Fox and Farquhar, p. 20. Dr. Wise gave him his first information of two cases which occurred in his practice, and of which he made an official report in January, 1873.

Quoting Dr. da Silva Lima, of Bahia, Dr. Sangster states, in Quain's Dictionary, that ainhum "is peculiar to the African race," being found not only amongst the inhabitants of the West Coast of Africa, but also amongst the Hindoos of African descent, as well as amongst the slave population of South America. Assuredly there can be very little suspicion of an admixture of African blood among the Caucasian natives of Eastern Bengal.

Dr. Colles found these appearances in a finger which had separated. The specimen is in the Medical College Museum:—"Distal phalanx normal in shape; its cancellous structure opened out, and filled with yellowish oily fat (commencing fatty degeneration); distal interphalangeal joint intact; distal end of second phalanx bony, the remainder of the bones converted into fibrous tissue; no bone at point of spontaneous amputation; fatty and fibrous tissues increased in quantity; skin moderately hypertrophic.

In a case in which a little toe had been removed, Dr. G. C. Roy found that "the place of the first phalanx was supplanted by an indurated tissue surmounted by the shell of its cartilaginous articulating surface, so that,

[32] *Indian Medical Gazette*, November 1, 1866, p. 339.

[33] *Indian Medical Gazette*, April, 1876.

[34] I have no experience of Dr. J. M. Fleming's mode of "curing" leprosy by carbolic acid, *Indian Medical Gazette*, vol. vi., p. 14; or of Mr. Lawrie's practice of nerve stretching in anæsthetic leprosy. *Ibid.* September, 1878.

[35] SURTEES mentions that, at Sherburn Hospital, "the daily allowance of the lepers was a loaf weighing five marks, and a gallon of ale to each; and betwixt every two, one mess or commons of flesh three days in the week, and of fish, cheese or butter, on the remaining four. On high festivals, a double mess; on the feast of St. Cuthbert, in Lent, fresh salmon, if it could be had, if not, other fresh fish; and on Michaelmas-day, four messed on a goose. With fresh fish, flesh or eggs, a measure of salt was delivered, the twentieth part of a razer; when fresh fish could not be had, red herrings were served, three to a single mess, or cheese or butter by weight, or three eggs. During Lent each had a razer of wheat, to make furmenty (simulum), and two razers of beans to boil. Sometimes greens or onions, and every day, except Sunday, the seventh part of a razer of bean meal; but on Sunday a measure and a half of pulse to make gruel. Red herrings were prohibited from Pentecost to Michaelmas; and, at the latter, each received two razers of apples."

[36] *Indian Medical Gazette*, for August, 1873, and June, 1874.

during amputation, the knife passed smoothly through its structure. Under the microscope it was found to consist of white fibrous tissue, in which were sparsely interspersed fusiform nucleated cells and oil-globules."

This disease is not absolutely confined to Eastern Bengal. It has been observed by Mr. C. J. H. Warden at Bhaugulpore in a native cultivator who had always resided in that district.

Ainhum appears to be a form of leprosy corresponding with the "joint evil," or "Coco Bay," of the West Indies. Richard Towne clearly describes the joint evil as leprosy in his work on the "Diseases of the West Indies," published in 1726. He gives the following description of the local mischief —"The nails curl inwards, and the extremities of the fingers and toes begin to ulcerate. These ulcers which never digest, but generally look dry, without much foulness or fœtor, gradually creep from joint to joint, till they have eroded," *i.e.*, eaten away, "all the fingers and toes."

In India, this fatty degeneration of bone and other structures also occurs in larger joints, as in the ankles and wrists. This subject will be illustrated under the heading "Fatty Degeneration of Bone," in the Chapter on Diseases of the Bones.

Struma.—I have thought it best to consider this constitutional condition, as it is observed in India, under the heading of *Phthisis.*

I apprehend that, at present, the occurrence of *Rickets* among natives and Europeans born in India is not proved. Several of my brother officers of great experience in the Upper Provinces tell me that they have never seen it. Preparations 1,181, 1,249 and 1,250 in Ewart's Catalogue are specimens of bones deformed by rickets, but they are not stated to have been from native subjects. I do not find that any Indian observer has written on the occurrence of this disease in the country. Certainly the disease is not common in Indian hospitals. During my long experience as a clinical physician, I never said to my students—"Here is a typical case of rickets." But the cause of this rarity needs investigation. Thus—(1) Struma and phthisis occur among the natives of Bengal, but far less frequently than among the inhabitants of London. Does rickets follow a similar law? (2) Did not rickets frequently occur before Glisson wrote upon it late in the 17th century? Was not Homer's model for the picture of Thersites a victim of rickets? Was not Richard the Third, with his crooked back, unilateral atrophy and overhanging brow?

Did not this disease come to light only when national prosperity and the advance of medical science began to enable the puny and deformed children of the poor to live on, as no such children did in Sparta or in India when infanticide was lawful? What, in the middle ages, were "changelings," believed to be substituted by elves? The fact that extremely poor, semi-barbarous people, untaught in the means of securing the survival of the least fit, are not found to have rickety children in their huts is not proof that such children are not born to them. I have seen at Delhi a burial ground filled with hundreds of little white tombs placed over the infants of the Great Moguls. It is rather the exception than the rule that one of the polygamous rulers of India leaves an heir of his body. Hence the law of adoption. What do all these invaluable little lives succumb to? Many observers have noticed the rarity of congenital deformity in India; but this observation demands qualification. True, there are not many hunch-backed, bow-legged, or knock-kneed natives; but, in India, there is no scarcity, *first*, of those congenital deformities which do not impair bodily vigour. I could have collected scores of such cases, among others that of a good-looking servant of my own, endowed with six toes on each foot and six digits on each hand, who took away a cart-load of my best property. I regret that his extremities have not found place in our College Museum. Or, *second*, of those which qualify for a life of beggary, or which mark their possessor as lucky.[37]

Vide Dr. A. Garden's elaborate report upon nine cases of malformation of the hands and feet in natives, which he observed in six years.[38] There are not many known congenital malformations which have not been seen in natives, as these pages will show.

I trust that the discussion which took place at the Pathological Society in 1880-81 has led medical men in India to take up rickets as a special study. I used occasionally to see, in the native bazars, an object who was probably rickety. Search should be made among those professional mendicants who are cripples, always remembering that in India, as in this country, children are often crippled for begging purposes. Instances of pelvic deformity in native women are extremely rare; but a small collection of Indian cases of Cæsarian section which I have made gives countenance to the opinion that females in that country are not wholly exempt from rickety distortion impeding labour.

(*To be continued.*)

THE BRAIN OF THE SCHOOL-CHILD.[1]

By FRANCIS WARNER, M.D., F.R.C.P.,
Assistant Physician to the London Hospital.

Public education is presumably undertaken for two purposes, (1) the benefit of the child, (2) the benefit of the public. From both points of view it is very desirable that all the mental and moral faculties of the child should be cultivated. Inasmuch as the properties of mind depend to a very great extent upon the condition of the brain, it is highly desirable that the educationalist should have some knowledge as to what kind of a brain he has to educate, and that he should know something of its various properties and functions, not only its intellectual manifestations; such knowledge may enable him to preserve the balance of the powers of the brain as it developes.

It will be granted that the educational processes should be adapted to the children, and it must be admitted that the average educational processes must be adapted to the average child. Are the average methods of education adapted to all children? A while ago it was found out that the deaf and the blind could not be taught in ordinary school-rooms; these are now in part provided for by small special classes. I desire to draw attention to another class—the nervous, irritable children; children who are irregular in attendance on account of headaches, recurrent chorea, occasional fits; habitual truants whose brain defect can be proven; the child so dull that it remains among the infants and learns nothing, As a hospital physician I meet with many such children, though doubtless they are but a small percentage of the school population, and from what I see I think these are practically not educated.

Is this to the public advantage? Why are the deaf and the blind educated? A part of the reason is that they may not become paupers. Why are the children

[37] In the chapter on "Congenital Imperforation of the Lower Bowel," I have noted that a child born without an anus is designated by the Up-Country natives a "Pargumber," or "Messenger from God." Mr. W. Cockburn states, in "Panjab Notes and Queries," vol. i., p. 64, that people born with deformities, such as double thumbs, &c., are accounted very lucky, being furnished with a natural preventative against *nazar*, the evil eye.

[38] *Indian Medical Gazette*, May, 1875.

[1] A paper read at the meeting of the Social Science Congress at Birmingham, September 19th, 1884.

of slight brain defect uneducated—children tending to become passionate, to pick up bad habits and practise them, tending to criminality, or, if too feeble for that, to pauperism? They are not neglected intentionally, but because they are not known to the school managers, it is nobody's business to find them out; they are not classified, and take their chance with the rest. Now my argument is, we can discover such children, and pick them out by definite physical signs; we can pick out from a class the child not up to the average, the child tending to failure from want of brain-power.

To say that such children are few in every school is no reason for their neglect; we rejoice that but few have such inborn conditions as make them tend to social failure, pauperism, or crime, but we wish that none should thus fail. Let such tendencies be detected early, and pointed out to the educationalist, that he may tend such cases carefully, helping to correct the defects due to brain condition.

I do not propose here to describe the physiology, and pathology of the child's brain, but I think that some such knowledge should be acquired by those responsible for large schools. Having looked carefully through the books now being exhibited at the Health Exhibition, and having made enquiries of all the school publishing societies, I find works on physiology, but none on the study of the brain of the child. In the exhibition only one exhibit contains a health register, and that comes from Japan. The brain of the school-child should be undergoing rapid development; the school-managers cannot be responsible for its nutrition as far as that is dependent upon food, but they may in special cases regulate the teaching according to the brain condition.

Let it be known and remembered that every movement and every posture of the body is an index of the action of the nerve mechanism. Let the teacher and manager study the children, the way they stand, the manner in which they hold out their hands, the appearance of their faces; let them study the expression of each child's condition.

Particularly should observation be directed to note any bodily defect about ears, eyes, lips, &c., for when there is a visible defect, if only in an ear, the brain is often coincidently defective in its development.

In various published essays I have given these signs in detail, so refrain from giving them here. I believe that, roughly speaking, a layman may be taught the physical signs of brain conditions with sufficient accuracy to guess, with some degree of certainty, the children with slight brain defect, recurrent headaches, those who sleep badly, and are excitable; such teaching our profession can give to teachers.

Neglect in these matters does lead to unintentional cruelty to children, and to what I think more important, to the educational neglect of wrong-brained children. The teachers do not want to neglect them; such neglect is due to ignorance, for which the managers are responsible. Now, as to these wrong-brained children, they are worth helping; in most cases a genius is abnormal; the very faults and nervousness may be trained to become admirable qualities—sensitiveness of mind, mobility of mind; and the fidgety child may become an active man. Such children too often escape from an educational process unsuited to them, but still, better than no education. The nervous, excitable boy, always ill with sick headaches while at school, is excused from school attendance; at home he is idle; too often the parents are neglectful and unwise; and as he grows up, when drink or passion inflame him, he commits some act bringing him within the power of the police. I have seen the education of many such continued with success when removed from large schools, and placed at inferior, but small and quiet schools. Again, the weak-brained, feeble-minded child often gets so teased, that at last he cannot be induced to go to school; his attendance is excused on the ground of health. What becomes of him after that?

Two important questions arise, then: (A) How can wrong-brained children be picked out? (B) What can be done for them?

A. How can the wrong-brained be picked out?

This raises the question whether the ordinary school manager is able, unassisted, to discover the brain condition of the children. Should there be an occasional medical inspection to aid the managers to determine how they may help on the development of the children? This might be met by occasional medical inspection, say twenty times in the year. We are not speaking of questions of hygiene or cases of illness. At the inspection, an experienced doctor, looking over the school class by class, would soon select those probably requiring some special care; the teachers would present for examination any child they found specially troublesome, often complaining, short-sighted, very passionate, &c.; and the cases of children excused from attendance on grounds of health would be considered; advice might be given on all cases. At a school I recently visited, a child was presented by the teacher as "not dull but somehow wrong"; grave brain defect was obvious; the advice given was to keep the child, if possible, at school and out of the gutters.

A boy was brought to me who was frequently absent, and often punished when in school; he had harelip, a defect of the heart, and an ill-developed brain. He has a right to be educated, and ought not to be punished for dulness of brain.

In examining a child as to brain condition, general excitability may be expressed by general fidgetiness and finger twitching. The posture of the hand when held out by a healthy child is straight; it assumes a special posture in the nervous, excitable child, and a different position in simple fatigue. The teeth are usually ground in an ill-sleeping child. The parts around the eye are visibly relaxed in conditions of headache, making it unnecessary to take a child's word as to whether it suffers; we can see it for ourselves. As to training the brain to stand strains, I believe it is better for the nervous child to be educated. It must meet the shocks and strains of life, and if *properly* educated and exercised it will bear those shocks and strains better than if untrained to think and to exercise self-control.

B. What can be done for these children?

I am not a technical educator; a want is pointed out, and we are prepared to show how this special class of children may be classified, and in individual cases or a group of cases we can say what will aid brain development.

In classes for the dumb I have seen cases very defective in brain being educated. In the highest class at Darenth Schools I have seen feeble-minded children being educated and sent out into the world. Small classes and special teachers could well manage the dull, the excitable, the wrongly-made children.

As to the expense of teaching a few children in a small class-room, instead of in a large room, would not the money be well spent in an effort to lessen crime, pauperism, and social failure? Should the endeavour be made to educate and save the child, or to reform the drunkard and criminal, and redeem the pauper to society?

I should like to see a tentative effort made. Provide inspection for a few large schools and two small class rooms with suitable teachers, and the truth of these statements would, I think, be soon demonstrated, and the value of classifying the brain-power of the children

would be recognised. The school examiner classifies by intellectual functions only. Every weakly or troublesome child who now escapes from public education is a failure of the system, and every such child is likely to be a public harm.

CASE OF DETACHMENT OF THE RETINA, IN A PERSON AGED 70, INVOLVING TOTAL BLINDNESS, CURED BY WOLFE'S OPERATION.

By J. McGREGOR-ROBERTSON, M.A., M.B., C.M.,
Junior Surgeon, Glasgow Ophthalmic Institution, Demonstrator of Physiology in the University.

Hugh S., aged 70, storekeeper in a ship-building yard, applied on the 23rd of August, 1884, for admission to the Ophthalmic Institution, because of blindness of the right eye.

The man's history was unusually good. He had always enjoyed perfect health, was of regular habits, and looked a hearty, hale old man.

He began to be troubled with his eyes about 18 months ago. One evening while walking along Argyle Street, Glasgow, he noticed that each of the lamps on the opposite side of the street appeared to have two lights instead of one, one of which was white the other blue. He stopped and then walked across towards the lamp, and as he approached it the two lights came nearer to one another till at a certain distance they merged into one. On going away again the two lights re-appeared. He then tried shutting one eye, and found that the white light was perceived by the left eye, and the blue one by the right, but the lights were crossed so that the blue light, perceived by the right eye, was to his left side. He thus became aware that something was wrong with the right eye, which gradually grew worse until he could not discern shadows with it. Lately he began to see floating objects before his left eye.

In Dr. Wolfe's absence I examined the patient. The following was the condition of the right eye: Pupil imperfectly dilatable, tension normal, a large retinal detachment at the lower and outer portion of the fundus and some floating pigment. The detachment completely obscured the fundus when one looked straight into the eye. But when the eye was rotated strongly inwards a glimpse of the disc could be got. It appeared only moderately clouded. There were a few floating shreds in the part of the vitreous not implicated in the detachment. Vision was almost completely abolished. The patient could not see the lamp held before him, nor could he discern the shadow of a hand held in front of him. Away to one side, however, he could catch a glimpse of the white cuff on the wrist of the hand held up, though when trying to touch it he missed it. As he himself expressed it he was "perfectly blind but for a wee bit blink away to the one side." In the left eye no floating bodies could be discerned through the undilated pupil. I considered the detachment one suitable for operation and requested the man to return on the following Monday, August 25th, when Dr. Wolfe confirmed my diagnosis, and thought it a favourable case. For, although the blindness was altogether out of proportion to the extent of the detachment, and although the remaining clear portion of the retina failed to form images, the chances afforded by an operation should not be withheld in such a case, since, when a large retinal surface becomes detached, the rest becomes torpid and then loses sensibility. It is remarkable that after the withdrawal of the effused fluid, the retina not only regains its function but the detached portion applies itself to its old site. When the macula is not involved, normal vision becomes re-established; but when the macula loses perception of light by long detachment there is eccentric fixation; that is, a neighbouring portion of the retina is used for it. In this case the signs of commencing embarrassment in the other eye also indicate the desirability of the operation to remove the effused fluid.

The operation was performed on the 2nd September, Dr. Kirkwood, of Rutherglen, along with myself assisting. Having introduced the speculum, Dr. Wolfe made a vertical incision into the conjunctiva and fibrous capsule at the outer and lower angle of the cul-de-sac. The edges of the wound were separated by two small strabismus hooks, and the eyeball having been rotated upwards and inwards, Dr. Wolfe entered the sclerotome through the sclerotic into the sac of the detachment. A large quantity of brownish fluid followed the withdrawal of the instrument. The wound was brought together by two fine silk ligatures, and the patient was put to bed.

On the sixth day after the operation the ligatures were removed. There was not the slightest reaction in the eye, which looked healthy and clear. With the exception of a red mark where the conjunctival incision was made it bore no marks of operation. The left eye was blindfolded, and it was found that with the right he could see everything and every person in the room, and walk to any part of it without hesitation. He could see with perfect distinctness a ring on the little finger of a hand held up at six feet distance and could with very little trouble tell the time to a minute on a white faced watch. He could also read Snellen's CC at ten feet, C at five feet, XL at three feet, and XX at twelve inches.

In *The British Medical Journal* for 3rd May, 1884, I reported a case of detachment of the retina, cured by Wolfe's operation. That case and the present one are remarkable testimonies to the value of the operation. It was performed on a man of the age of 38, this on a man aged 70. The former case was complicated with irido-choroiditis and nebulous cornea, the latter was uncomplicated. After the lapse of seven months the regained sight of the former has not at all diminished in quality, the man at this date being able to tell the time, to a second, on a watch, and to pursue his occupation as a tailor, and that in spite of the worst possible hygienic surroundings. Is it too much to expect that the present patient, a man of still vigorous health and of strictly regular habits, will benefit still more by the operation, and to conclude that the operation whose simplicity is one of its great merits is destined to occupy an important position in eye surgery?

ACUTE VOMITING IN INFANCY TREATED BY NUTRIENT ENEMATA.

By A. WITHERS GREEN, M.R.C.S., L.R.C.P., Lond.

H. Edward H. is a rickety, bottle-fed child, 7 months old. On September 6th it had a bottle of milk which was somewhat sour, but went to rest as usual. During the night the child was seized with vomiting and diarrhœa. I was called to see it at 5 a.m. On the 7th I found the eyes sunken into their sockets, great pallor and listlessness. The infant was cutting its right upper central incisor. I lanced the gum and ordered one teaspoonful of castor oil. After the oil had acted the diarrhœa ceased, but the sickness was unabated. Milk, whether fresh cows', condensed, or

artificially prepared human milk, was not retained, neither was barley water, rice water, beef tea, nor raw beef juice, in fact everything was pumped up unaltered, sometimes seeming hardly to have got into the stomach. By the evening of the 8th the child had been some hours passively convulsed or else very restless, extremities at times cold and fontanelle very depressed. Lime-water, bismuth, Hyd. c creta, gr. $\frac{1}{4}$ every four hours, Tinct. Opii ℥ $\frac{1}{8}$, Tinct. Iodi ℥ $\frac{1}{4}$, Creosote ℥ $\frac{1}{12}$, Glycerinum boracis, all seemed useless. Nutrient enemata were now commenced, after my evening visit on the 8th, and were continued until the morning of the 12th, as nearly as possible every two hours. The enemata were in amount two tablespoonfuls with half a teaspoonful of brandy in each, and consisted sometimes of condensed, or fresh cows' or artificially prepared human milk, sometimes of beef tea of different kinds all slightly warm. After a few times the child kept quite quiet while the injections were being given, and seemed revived after them. None of them were returned. Since the nutrient enemata were commenced the bowels have acted twice daily, gradually getting less slimy, and more natural. For rather more than three days and three nights no nourishment was taken by the mouth, the lips being moistened with brandy and milk. On the 9th a warm vinegar and water compress was kept most of the day round the waist, and since the 9th one tablespoonful of cod-liver oil was rubbed into the chest after washing the child each morning. During the night of the 11th beef tea, made with Liebig's extract of meat, was kept on the stomach, one tablespoonful about every four hours. On the same day the child smiled and seemed hungry, but was sick if more than a small quantity was given at a time. From the time the stomach began to retain beef tea, Bismuthi subnit. gr. $\frac{1}{2}$, with Tinct. Opii ℥ $\frac{1}{8}$ was given when any sickness or retching occurred and seemed to do good. On the 13th half a teaspoonful of cod-liver oil began to be given three times a day by the mouth. On the 14th half a teaspoonful of steel wine began to be taken as well. Though the beef tea was the first thing retained by the stomach the child soon began to refuse it, preferring its bottle of cows' milk (boiled) and water. The parents consider the issue highly satisfactory as they thought their child was for some days a little better than a corpse while now it is daily gaining strength and vigour.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

SUPPURATION IN ANTRUM—SUPERFICIAL NECROSIS OF MAXILLA—GOUGING—RECOVERY.

(Under the care of Mr. BERKELEY HILL.)

(For these notes we are indebted to Mr. VICTOR HORSLEY, Surgical Registrar.)

ARTHUR D., aged 4 years, was admitted into the hospital on May 11th, 1884.

Personal History.—He had measles in August of last year, and appeared to have made a good recovery. He was now strong and lively, and had not suffered from any other antecedent illness. Two years ago he fell, striking the left cheek sharply against the prominent edge of a fender, causing a deep lacerated wound just below the orbit. This wound healed very well, a doctor's assistance not being required or sought.

Family History.—The child's father, who had had several attacks of rheumatic fever, died of phthisis, at the age of 36. The mother belongs to a "consumptive" family. There have been two other children, one of whom died in this hospital of diphtheria a little while ago. There is no family history of tumours.

Present Illness.—The swelling on the face first appeared about Christmas last. It was bathed with warm water and gradually increased in size. The swelling was lanced at another hospital some two months later, and subsequently poultices were applied. Since this there has been a constant discharge of pus. This incision is about in the place of the original lacerated wound.

Admission.—The left cheek is found much swollen, the greatest prominence being over the canine tooth of the upper jaw; here the skin is stretched, but is freely movable. Just beneath the lower eyelid the skin is reddened and pus exuding. A hard lump is felt over the situation of the canine tooth, as large as a cobnut; the surface of the swelling is smooth, and it is rather tender when pressed.

May 15th.—On exploring the sinus on the cheek with a probe, bare bone is felt; but no opening into the antrum could be found, nor any loose bone; the amount of pus was small. Hot boracic fomentations were ordered.

May 21st.—Mr. Hill made a free opening into the antrum, over the left canine, and found some superficial necrosis of the superior maxilla and malar bones, which he scraped away. The antrum was plugged with boracic lint.

May 24th.—The cavity was syringed out with carbolic lotion, and iodoform applied to the sinus on the cheek.

May 27th.—Discharged, well.

Remarks.—In the great majority of cases, abscess of the antrum is produced by dental caries, or by alveolar abscess. But in the present instance we have a case which was apparently due to injury inflicted some two years previously. There was no difficulty in the diagnosis; while the success of the treatment was doubtless due to the free opening which was made.

SUPPURATION IN THE LEFT ANTRUM WITH SYMPTOMS INDICATING DISEASE OF FRONTAL SINUS.

(Under the care of Mr. GODLEE.)

THOMAS N., aged 47, a clerk, was admitted into the hospital under the care of Mr. Godlee. His personal and family history are good. He is of temperate habits and there is no cancer or tendency to tumours in his family.

Present Illness.—Just before Christmas last year, he received a blow from the leg of a couch over the left brow which made him feel silly for a time. A large lump formed at the seat of injury. This became discoloured and lasted about ten days. A week after the injury, while eating his breakfast one morning, he noticed an offensively smelling discharge from his left nostril. This has continued for some time and then goes away. He has had severe headache at times, lasting for several days and then going away. This pain begins over the spot where he received the blow, thence shoots up to his occiput. The discharge from the nose comes on after the headache. For three months past he has completely lost the sense of smell.

Present State.—Examined with a speculum, there is seen a yellowish discharge from the floor of the middle

fossa of the left side of the nose; the mucous membrane is red and congested.

He was ordered flying blisters over the position of the frontal sinuses, under which there was at first considerable improvement. He was then temporarily discharged.

September 3rd.—On re-admission he still complained of the pain over the left frontal sinus, which extended backwards in a defined manner for about the length and breadth of a forefinger. There was very offensive discharge from his nose.

He was chloroformed, and it was determined to explore the antrum before opening the frontal sinuses, where the mischief was however expected to exist. A trocar and canula were passed in above the first molar tooth, and a quantity of creamy offensive pus was evacuated. Mr. Godlee now gouged an aperture through the anterior wall of the antrum, after first separating the gum and mucous membrane from the alveolar border.

The cavity was scraped out with a sharp spoon, and it was plugged with wet boracic lint, dusted with iodoform, after being irrigated with chloride of zinc solution.

September 4th.—Patient passed a very good night; all pain from the frontal region had disappeared.

September 5th.—He was discharged greatly relieved.

Remarks by Mr. Godlee.—The interest of this case consisted in the fact that both the history and symptoms appeared clearly to indicate disease of the frontal sinus, whereas there was no swelling, tenderness or discomfort in the region of the antrum. The pain was referred to the inner part of the superciliary eminence and was thus clearly not due to supra-orbital neuralgia which not unfrequently accompanies suppuration in the antrum.

HÆMATURIA—MEDIAN CYSTOTOMY—REMOVAL OF A CANCEROUS TUMOUR FROM BLADDER—RECOVERY.

Thomas G., aged 49, was admitted on August 1st.

Personal History.—The patient has always been a healthy man. About fifteen years ago he had an attack of "gout, accompanied with rheumatism." Since that date he has had occasional recurrences, but only one severe attack about seven years ago, which laid him up for over three months. His habits have always been temperate; he has taken a little ale, but rarely spirits; he has never suffered from privation of any kind. Thirty years ago he suffered from an attack of gonorrhœa, from which, however, he soon recovered. He has never had syphilis.

Family History.—Father and mother dead—both lived to good ages. No history of stone, or rheumatism, phthisis, syphilis or cancer. A sister suffered from gouty concretions at joints of the phalanges.

History of Present Illness.—About nineteen months ago patient began to pass a few drops of blood at the end of micturition. No notice was taken of this, until the amount became larger and the intervals of remission longer. It became also more completely mixed with the urine, but occasionally clots were also passed. He felt no pain at first, when blood was passed; but three months ago micturition began to be accompanied with pain over the pubes, of a dull character, together with a smarting and itching at the end of the penis. During the last three or four months, patient has had to pass water very frequently, sometimes as often as every half hour, and the quantity passed has been very small; the frequency is a little more at night than during the day. Six weeks ago he noticed something in the urine like a "piece of flesh."

Present State.—The patient is now micturating at the rate of about 24 or 25 times in the 24 hours; more frequently at night than during the day, and passes from two to three ounces at a time. There is pain over the pubes during the act, and itching at the end of the penis afterwards. This only lasts a few minutes, and it is less marked when he micturates in the sitting position. Some days there is no apparent blood in the urine, though a deposit always appears on standing. Patient occasionally passes small flesh-like masses. The urine is now of a smoky reddish colour; it contains a one-fifth albumen, and there is a sediment on standing. This deposit consists of mucus, blood corpuscles, triple phosphates, and a little pus. On passing a sound, the instrument is deflected to the left as it enters the bladder, and as the sound enters more deeply it is impossible to bring it to the middle line, until the back of the bladder is reached, on account of an irregular hard mass growing from the base and right side of the viscus. A small amount of bleeding followed the sounding. A stone could not be felt. It was thought that the mass detected by the sound could be felt with the hand placed above the pubes, and this was verified afterwards when the patient was anæsthetised, it being then possible to grasp the mass between the fingers of one hand placed over the pubes and the forefinger of the other passed into the rectum.

August 6th.—Under chloroform, after examination, Mr. Godlee opened the bladder by the median incision. On passing the finger in a large sessile growth was felt on the anterior wall of the bladder. This was extracted by means of a Thompson's bladder forceps. The hæmorrhage was rather free, but readily ceased after the injection of iced water. Chloride of zinc solution was applied to the interior of the bladder and to the wound, and iodoform was dusted on to the latter. A tube was inserted. It was not possible apparently to get away the whole of the growth. A morphia suppository was then administered.

August 7th.—The patient has been much relieved by the operation.

August 9th.—The tube was removed. The pain beneath the pubes has not quite disappeared.

August 20th.—The perinæal wound almost healed. The urine is passed per urethram. It contains a considerable quantity of pus.

August 22nd.—There has been a little tenderness in one testicle, for which fomentations have been applied, and which is now almost gone. He was discharged on the 26th. The temperature has been slightly above the normal throughout; it was not materially influenced by the operation. As to the tumour, on examination it was found.

September 11th.—Patient was seen to-day. He is much improved in health, having now a good colour, whereas before he was pale and anæmic. He has no trouble with his water, except that a certain amount still leaks through the perinæal wound.

Remarks by Mr. Godlee.—It is questionable whether a surgeon is justified in attempting the removal of a tumour of the bladder which is so large that it can scarcely be hoped to remove it entirely. The justification of such a proceeding in the present case appeared to be the fact that the man was rapidly losing strength as a result of the hæmorrhage and suffering great discomfort from the pain and frequency of micturition. The free application of chloride of zinc and of iodoform kept the bladder perfectly sweet, and the patient thus suffered from no constitutional disturbance after the operation. The question of a second operation may possibly arise, as the nature of the growth was unquestionably epitheliomatous.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 27, 1884.

On Wednesday week the 28th annual congress of the Social Science Association was opened by the President, Mr. Shaw-Lefevre with an address, characterised both by breadth of view and by minute attention to detail. He began by showing the methods by which social science works, and pointed out how acts of legislation play therein the same part that experiment plays in physical science, a fact, we may add, which should render an interfering parliament secure of the gratitude of social scientists. The president next said that democracy, so far from showing jealousy of the Executive and a preference for destroying institutions, had trusted and extended the powers of the State, and in this it had been encouraged by the modern school of political economists, who had largely departed from the views held by their predecessors. Mr. Shaw-Lefevre then proceeded to classify and to consider the different methods of State intervention, and the legislation by which it had been carried into effect between 1867 and the present year. The first class, in which the State undertook or allowed local authorities to undertake functions previously performed by private agency, included education, the post office and telegraphs, water and gas supply. The second class, imposing restrictions on certain industries in the interest of safety, health or morals, included the factory acts, the liquor laws, and the regulation of the mining and shipping industries. In some respects the results of these acts of legislation had been disappointing. The third class, that of sanitary legislation, was dealt with at some length, and in touching upon the measures for improving the dwellings of the poor, Mr. Shaw-Lefevre decided that it was a long stretch of the rights of ownership to admit the title of persons who had allowed their property to become a nuisance, to full compensation at the cost of the public, when it was determined to take such properties out of their hands. Other classes of State intervention dealt with fell under the heads of freedom of contract and loans by the State. But the most important part of the address was that in which the author discussed the benefits of all this legislation. Here he was able to show that in the last ten years, nearly half a million people survived who would have died if the previous rate of mortality had been continued, while in the same period pauperism had decreased by 30, and serious crime by 22 per cent. Finally he entreated his hearers to enter upon their subsequent discussions "in the best spirit of philosophic fairness and of enlightened scepticism, seasoned with sympathy for our countrymen of all classes."

On Tuesday, Dr. Norman Chevers delivered his address as President of the Health Section. He began by arraigning our "sanitary system," questioning whether it had the right to be recognised as a validly working system of health. He instanced the state of the Thames, the sewage system of London, the terrible smells of Covent Garden, the filthy and dilapidated condition of the dwellings of the poor, the high death-rates of the "slums," especially among infants, and asked whether a foreigner would not be justified in wondering whether "these worthy, self-satisfied people can seriously boast that they exist under a sanitary system." Of all vain conceits the most loathsome and futile was that of Sanitary Brag; pretentious quackery and dishonest assumption of power that we do not possess would never effect the real triumphs of sanitary reform. He was no pessimist; he had studied and practised sanitation, lovingly and hopefully, for forty years, but he recognised the disheartening fact that without powers, full almost to benevolent absolutism, the benefits of sanitary administration must always be very tardy in their advance and narrow in their scope. He insisted on the necessity of persuading—would that he could say of *compelling*—the world's blockheads to act upon scientific teaching. He strongly advocated the appointment of a Minister of Public Health, invested with great powers, against which all narrow self-interested opposition would be futile, and commanding large means, and he confidently anticipated that in a very short time after such an appointment being made, nothing more would be heard of sewage-poisoned rivers, smoke- and fog-blocked cities, or of public buildings and attractive suburban retreats constructed upon burial grounds, quagmires or abandoned lay-stalls. Amongst the benefits that would follow would be the publication of medico-topographical and sanitary reports for all towns and districts in the United Kingdom; the sanitary administration of our cities on a uniform plan; and the reform and strict regulation of our systems of medical education and practice. Duly empowered, Britain's Minister of Public Health would soon be able to declare that the health of England was at length protected and administered by measures which worthily claimed to be distinguished as a "sanitary system."

The special questions selected for discussion in the Health Section, presided over by Dr. Norman Chevers, were:—(1) What is the best method of dealing with (*a*) town sewage, (*b*) the products of house and street scavenging, and (*c*) the products of combustion? (2) What are the best means, legislative or other, of securing those improvements in the dwellings of the poor, which are essential to the welfare of the community? (3) How far may the average death-rate of a population be considered an efficient test of its sanitary condition; and by what means can the high death-rate of children be reduced? In connection with the first question, papers were read by Mr. T. Pritchard, C.E., who described the various methods of sewage disposal and expressed the opinion that no particular system could be adopted for universal use; by Mr. Lawson Tait, who gave an elaborate account of the system employed, with considerable promise of financial success, at Birmingham; and by Captain Douglas Galton, who dealt with the problem of smoke abatement, concluding that it could only be secured by resorting to the use of gaseous fuel.

The second question was introduced by a paper by Mr. John Hamer, who described the work of the

Mansion House Council on the dwellings of the people, and, pointing out that the sanitary authorities at present exist for the removal of nuisances rather than the prevention of disease, advocated strongly the creation of a Ministry of Health and Education. "The health of the people and the education of the people" he concluded, "are so vital to the whole nation that their regulation should be a national, in other words, a State affair." A long discussion followed, the general opinion seeming to be adverse to the erection of dwellings by local authorities, an opinion in which Mr. Shaw-Lefevre fully concurred.

In connection with the third "Special Question" Mr. Noel Humphreys read an elaborate paper, in which he examined and analysed the various objections to the use of death-rates as a test of health condition. His investigations led him to conclude that they afforded a numerical test of health condition sufficiently approximate and trustworthy to be useful as a stimulant of the public interest in health progress. Death-rates at groups of ages had a greater scientific value than the death-rate at all ages, but were not available as numerical tests of health. Dr. Herbert Page, of Redditch, in a paper on the same subject, called attention to the varying conditions which modified the test, and showed the importance of having special regard to the relative sex and age groups of the living to those of the dying in the same or similar populations. The remainder of his paper was devoted to a consideration of the means for reducing child mortality, a subject also treated in a paper by Dr. H. Ashby. Both authors contended that the causes of infant mortality were the health and life conditions of the parents, unsanitary conditions of dwellings, improper feeding, employment of mothers in mills, bad effects of burial clubs, poverty, degradation and drunkenness of parents. As a means of reducing the high death-rate, Dr. Ashby suggested improvements in the surroundings and homes of the working classes, checks on burial clubs, and improvement in the habits, status and education of the poor; while Dr. Page, in addition, insisted on the necessity of regulating the employment of women after childbirth, of registering cases of infectious disease, of enquiring medico-legally into the causes of the deaths of children; and, lastly—though this was a delicate point—of imposing some check on marriage to prevent the transmission of an enfeebled heredity. In the discussion which followed, Professor Gairdner said that the best test of sanitary condition was the death-rate of infants under one year, Mr. Neisser suggested a national registration of sickness, and the Chairman, believing that much infant mortality was due to the inexperience of mothers, advocated the registration of the deaths of first-born children apart from those of others.

Some other important papers were read in the Health Section. Surgeon-Major Pringle dealt with Asiatic cholera, epidemics of which, he held, almost invariably originated in Lower Bengal, and spread by human intercourse, "though not in the contagious and infectious manner seen in small-pox, &c." As to treatment, he believed in elimination, and was strongly opposed to the use of opiates and stimulants. He concluded, in opposition to Sonsino, whose views on the subject we publish in another column, that there was no such stage as that of premonitory diarrhœa. Nursing was the sheet-anchor in the treatment. Prevention consisted in removing the causes which produce diarrhœa and dysentery, and in the careful and independent inspection of the passengers in infected ships and at railway stations and halting-places. In another paper the same author considered "vaccination and revaccination." He believed that vaccination carefully and systematically carried out had lost none of its protective power, instancing the case of Meerut, with a population of 120,000, in which not one case of small-pox had occurred after a single vaccination. Except for vaccination, he said, no European force could hold India. He did not believe revaccination necessary where the primary vaccination had been made with fresh vaccine. In a paper "On Hospital Ships," Dr. P. Murray Braidwood dealt with the construction of these vessels, and showed designs of different types of ships. He strongly advocated the advisability of building special ships for the treatment of the sick and wounded at sea, in preference to using converted steamers for this purpose.

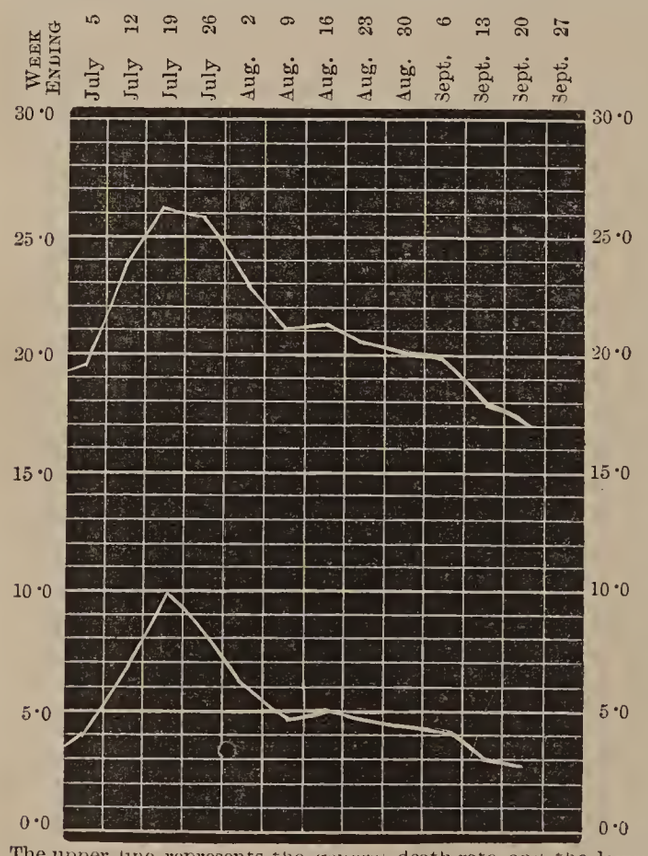
In a thoughtful paper "On the Future of some of the London Hospitals," with the views expressed in which we fully sympathise, Mr. R. Denny Urlin, Member of the London School Board, anticipated that, as London grew, and contributions fell off, some of these institutions would probably collapse. If this fate befell some of the small special hospitals, it would be no great loss; but there were others which from their position and mode of operation had become public necessities, and, if they were to be maintained, there must be sooner or later a subvention from public funds. This would certainly bring with it some degree of inspection and control which would be advantageous. At present a hospital might be planned, built, and carried on without any due security for the safety and health of the inmates, and solely at the caprice of a Secretary and a Board. As hospitals were built for the public, and mainly supported by the public, it was fair that they should be regarded as public institutions, and subjected to inspection and audit accordingly. Inspection for sanitary and other purposes should be compulsory in the case of all such structures, while audit should be imposed as the condition of obtaining any grant from Government or local funds. Mr. Urlin looks a long way ahead, and his expectation of obtaining Government grants in support of hospitals will be regarded by some as chimerical, but the radical consideration of the whole question will probably be forced upon us sooner than we expect. Meanwhile it is satisfactory to find that someone has taken time by the forelock.

The Sanitary Institute, treading close upon the heels of the Social Science Association, will open its congress and exhibition of sanitary appliances at Dublin, on

Tuesday next, most of the meetings being held within the precincts of Trinity College. The President, Sir Robert Rawlinson, will deliver his address on the first day at 8 p.m. On the second day the section of Sanitary Science and Preventive Medicine will hold its meetings, under the presidency of Dr. Grimshaw, the Registrar-General for Ireland. On the third day the meetings of the section of Engineering and Architecture will be held, while the section of Chemistry, Meteorology and Chemistry, presided over by Dr. Charles Cameron, will have its innings on the fourth day. In the evening of that day Dr. Alfred Carpenter, the Chairman of Council, will deliver a lecture entitled "Education by Proverb in Sanitary Work." The proceedings will be varied by public feasting and a conversazione.

Dr. Oliver Wendell Holmes celebrated his 75th birthday on August 29th. He received the congratulations, personally, by mail and by telegraph, of a large circle of friends throughout his own country and Europe.

The Registrar-General's return for last week shows that the deaths in London were 101 below the corrected average for the week, a result contributed to no doubt in great measure by the steady and fine weather that we have been having. The decline in the zymotic death-rate still continues, so that last week the deaths under this head only gave a rate of 2·7 per 1,000. Small-pox is accredited with six deaths which appears to be the normal amount, so that the epidemic may now be considered to be practically over. The deaths from measles and scarlet fever both



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the first twelve weeks of the current quarter.

showed a slight rise, the former going from 11 to 18, and the latter from 23 to 26. Diphtheria claimed 21 victims and that is leaving out of consideration 11 children under 5 years of age who were certified as having died of croup. The deaths from diarrhœa, which have been steadily diminishing for the past month, still further fell to 86. Enteric fever on the other hand caused 27 deaths, as compared with 26, 20, and 16 in the three weeks immediately preceding. The anti-vaccinationists of Leicester can point to the highest death-rate for the week, 29·9, being just 1·1 per 1,000 higher than that of any of the other 27 great towns.

The annual distribution of prizes to the students of the Pharmaceutical Society will take place on Wednesday next, at eight p.m., when the inaugural sessional address will be delivered by Mr. Thiselton Dyer, F.R.S.

The opening of the Medical Session will be made the excuse for the usual festivities at most of the London hospitals. There will be the usual monster *soirée* at Guy's on October 1st, and on the following evening the staff and lecturers of St. Mary's Hospital Medical School will give a large *conversazione*, at which there will be a display of electric domestic lighting. The arrangements for this, as well as the decoration of the school for the purpose of the entertainment will be superintended by Mr. Noble Smith. At St. Bartholomew's Hospital the old students' dinner will be held under the presidency of Mr. Holden, while the analogous reunions in connection with University and King's Colleges will be presided over respectively by Sir William Jenner and Sir William Bowman. There will also be the usual feasting at several of the other hospitals.

At a meeting of the Glasgow Town Council held on the 22nd inst., an exhaustive report was submitted by Dr. Russell, the Health Officer, on the present outbreak of enteric fever in Glasgow hospitals. The matter was first brought under the notice of the Health Officer for the city by the Superintendent of the Western Infirmary. Similar outbreaks were afterwards reported from the Royal Infirmary and Belvedere Fever Hospital, and as the city generally showed no signs of a similar epidemic, Dr. Russell came to the conclusion that the appearance of the fever was due to one source, which, after careful investigation, he declared to be the milk supply. The three institutions above-named are supplied by the same agent, and among the farms from which he obtains milk, is one in the parish of Kilwinning, the water supply of which appears to be singularly impure. Speaking of the district in question, Dr. Russell says that its condition is a matter of public notoriety, and a glaring proof of the hollow farce of rural sanitary administration. It is by such paths that cholera would find its way into our large cities. To show the extent of the outbreak it may be stated that no less than 104 cases were reported from the three hospitals, viz.: Western Infirmary 44 cases, of which number 17 are officials, including 10 nurses; Royal Infirmary 29 cases (3 officials of whom one, a nurse, died in the Belvedere Fever Hospital); Belvedere Fever Hospital

31 cases. It is hardly necessary to say that the remainder was made up of those who were already in the hospitals as patients for other affections than typhoid fever.

There is trouble brewing again at the Glasgow Royal Infirmary, and this time the staff seem to have been even more flagrantly overridden than on previous occasions. It appears, as may be seen from a paragraph in our news column, that the members of the staff, whose duty it is to admit patients, decided, after due consideration, to refuse admission to a case of typhoid fever, on the ground of its being an infectious disease, which would be more appropriately treated at the Belvedere Fever Hospital. This decision of theirs was at once overruled by the superintendent, which, to any one who knows the inner working of the institution, is equivalent to saying, by the lay manager of the infirmary, Mr. William McEwen. Subsequently numerous cases of the same fever were admitted, and patients suffering from other diseases turned away, though it was known that such action was disapproved of by the medical staff. The doctors have sent in a protest, but will probably get no satisfaction unless they resign. If they should be driven to this extremity, they will, no doubt, be unanimously supported by the whole profession in Glasgow.

At a meeting of the Glasgow Dean of Guild Court held on the 11th instant, the Lord Dean, McEwen, called attention to the condition of the drainage of the city, and expressed the opinion that considerable improvements might be made in a sanitary direction. He suggested that an officer should be appointed to see that the orders of the Court as to drains were properly carried out, otherwise the house or houses with defective drains will not be passed as fit for habitation. This is a subject of grave import at all times, but becomes doubly so when Glasgow is in danger of being visited by cholera. It is a notorious fact, that even amongst the fashionable quarters of the city, the drains are in a more or less deplorable state, not even excepting the residence of the Lord Dean of Guild. The builders build for the purpose of making money, regardless of either comfort or safety to health; their chief end being "mak siller honestly *if* possible; but, by all means, mak siller."

Some relics of the once celebrated Webb Street School of Anatomy were discovered by some workmen, in St. Thomas's Street, Southwark, on Monday, in the form of a quantity of skulls and bones, which had evidently been used for dissection. The coroner was advised of the fact, but wisely determined to take no official notice of the discovery.

Why does not someone write a companion sketch to Mr. Brudenell Carter's recent letter in the *Times* on "The effect of civilisation on the eyesight," terming it, for the sake of harmony, "The effect of civilisation on the nose-smell?" It is very evident from the vile odours in which the poor of great cities habitually move and have their being, that their sense of smell is quite as degenerate as their sense of sight. They could not otherwise live without their gorge rising against the fusty and sickening stenches which surround them. It is a law of physiology that the unintermitting call upon a function dulls it, while intermittent exercise cultivates it. If comparative trials of the sense of smell in different classes of the population were instituted, we make bold to say that the Eton boy would far outstrip his contemporary of the slums. And yet the sense of smell is not a useless or merely ornamental faculty which we can afford to let atrophy like our canine teeth. Sight and hearing can give us warning of the grosser shocks and perils that threaten humanity, but they are comparatively useless as sentinels against those more subtle dangers that lurk in polluted air and decaying food. For warnings against these we must trust to the less highly organised senses of smell and taste. The drain-smell which is all too common and unregarded in the houses of the poor shows that they have allowed one of these useful sentinels to go off guard, while the fact that bowel-disorders from the use of putrid food are common amongst hospital patients, but very rare amongst those of a better class, seems to prove that the other sentinel—taste—is equally little on the alert. As *Punch* appositely asks this week "What has pale Poverty to do with taste?" It is evidently important that in an all-round culture some attention should be paid to the improvement of these two useful senses.

The officers of the Indian Medical Service are intending, we hear, to present a piece of plate to Mr. Gibson, M.P., in recognition of his efforts to bring their grievances under the notice of Parliament and the public, and to obtain redress of them from the Government.

We are glad to learn that the financial account of the late Annual Meeting of the British Medical Association has been most satisfactorily wound up. The profession in the North of Ireland have reason to be proud of the success of the meeting from every point of view. It was perhaps the first time in the history of Belfast that its medical brethren were called upon to undertake the reception and entertainment of so many foreigners, and medical men from all parts of the kingdom; and we recently expressed ourselves in very favourable terms of the happy result. We were, however, quite unprepared for the rather unusual and unexpected state of matters as disclosed in the report of the Honorary Treasurer. There was not any guarantee fund provided for the expenses, the members of the profession alone were invited to subscribe, and it was, from the beginning, resolved that subscriptions should be strictly confined to the medical men in Belfast and Ulster, and a most liberal and hearty response was the result. The gross expenses of the meeting amounted to upwards of 1,300*l.*, and after all accounts were paid and the total expenditure met, the treasurer found himself in the rather unique position of being able to return one-fifth of the original subscription to each donor and still retain a balance to be handed over to a benevolent institution.

Hospital Saturday in Belfast was an entirely novel feature to the inhabitants, who seemed to be taken by surprise at the sight now so common in London and the great centres of English industry. Latest accounts show that a sum of nearly 600*l.* was realised. Considering the population of the town (250,000), this sum, which even for the first trial of the movement compares most favourably with the amounts raised in most places where this yearly method of subscription has been adopted, will doubtless be further increased in future years. The gross amount goes to the support of the Belfast Royal Hospital, whose funds urgently require an increase. One of the most active charities in the town also feels its finances crippled. The Ulster Hospital for Diseases of Women and Children, a teaching institution recognised by the Senate of the Royal University, is in the position of having its annual income seriously short of the annual expenditure. The committee met this week, and recognising fully the financial difficulty, decided to levy a small tax upon every extern patient, of whom there are about 8,000 yearly attending the institution. This resolution is considered by the medical staff as fatal to the working and usefulness of the charity, especially as in the large extern connected with the children's department, the little patients are from the very poorest districts of the town.

We have received from E. H. Schröder, of Berlin, lithographs of two pictures of medical interest, which he has recently published for the adornment of the consulting room. One is a reproduction of Rembrandt's well-known picture "The Anatomy Lesson," the original of which, at the Hague, is admitted to be one of the finest masterpieces of the Dutch School. The disposition of light and shade, and the character in each of the faces, which are the two most striking points in the original, have been faithfully reproduced in the lithograph. The other picture, by E. Hamman, is of a less pleasing nature, and is but little known in England. It represents Vesalius, a man of stern and rugged features, with a dead subject before him. With one hand he grasps the arm of the corpse, while with the other he is about to seize an instrument with the view of opening the head. But his glance and with it his hand are arrested by the sight of the crucifix upon the wall. The balance of the two emotions is admirably pourtrayed, but it is, we think, an uncanny though a powerful picture. The sight of it would shock most consulting-room visitors. The lithographs are cheap and the two can be bought and framed for considerably less than a guinea fee.

"Death from blood-poisoning following vaccination." Such was the verdict in an inquest held at Fulham a few days ago. If we substitute for "following" the word "after" we shall probably give a more correct version of the true state of the case. The infant in question was vaccinated on the 19th of August, and died on September 13th. Had the erysipelas of which the child died been due to the vaccination it should have made its appearance much sooner than it did, for a week after the vaccination there was no sign of it, the arm merely appearing as if it had been rubbed. When one bears in mind the rough and ready manner in which mothers amongst the lower classes dress and undress their infants, and when, further, the dirty state of their clothing is taken into consideration, the wonder is, not that children get inflamed arms after vaccination occasionally, but that they ever escape them. In the present instance there is nothing in the evidence to show when the erysipelas set in, or whether the parents obtained medical advice for the infant, a point of some importance in regard to such a disease as erysipelas.

What is Texan fever? Is there such a disease, and if there is does it matter? Such are some of the reflections which recent occurrences in Birkenhead, both last week and three weeks ago, will naturally suggest to the minds of the reading public. Last week the meat inspector for the Corporation of Birkenhead applied to the magistrate for an order to destroy the carcase of an animal which, he asserted, bore traces of having suffered from Texan fever. He described the carcase as deeply bile-stained, and the liver and spleen as being much enlarged, the latter weighing at least three times as much as the healthy spleen should do, and in the fourth stomach he had found several erosions. He said that the appearance of the meat alone would not have enabled him to recognise the disease, and he should have passed the carcase as sound had it not been for the condition of the viscera. He was followed by two or three scientific witnesses, who took the same view as he did, viz., that the animal had undoubtedly been suffering from Texan fever. On the other side were ranged a host of witnesses, some scientific, others practical; one of them, for instance, deposed to having eaten the meat about which a similar dispute had been raised a fortnight before, without having experienced any ill effects from so doing. These witnesses deposed that they considered the meat to be perfectly sound. One well known pathologist had put it through its facings, so to speak, under his microscope, and had been unable to discover any sign of disease, and they almost all expressed their readiness to eat some of it if necessary. This evidence, coupled with the fact that to his unaided senses the meat looked perfectly good, led the magistrate to decline to condemn the meat, though admitting that the case was a proper one to have been brought forward. Let us hope that the defendants did not celebrate their victory by a luncheon to their witnesses off the animal in question.

In the *Archives Générales* for September, Dr. Auguste Ollivier, physician of the Hôpital des Enfants Malades, at Paris, publishes the report which he addressed to the Conseil d'Hygiène Publique on "Measles in Paris, its incessant progress, its mortality and the necessity of prophylactic measures." Alluding to a former report of his on diphtheria which had procured the employment of such measures, Dr. Ollivier observes that unfortunately diphtheria is not the only contagious disease which weighs heavily on the infantile population of Paris, for there is also measles, which is even more common, but which

everyone, so to say, seems to regard as an inoffensive malady. Traditionary prejudices concerning it have descended from the middle ages, according to which it is usually looked upon as a necessary disease of no great danger. How erroneous this view is seen in the fact that of 57,024 deaths which, in 1883, occurred in Paris, 1,058, or nearly 2 per cent., were due to measles, this indeed ranking next to diphtheria with its 1,951 deaths. The fatality of the disease is also greatly on the increase, for while in 1865 there were but 343 deaths from measles, or 18·8 per 100,000, the proportion has progressively increased to 1,058 or 47·1 per 100,000 in 1883. This increase of the disease is owing chiefly to the greater facilities offered for the spread of its contagion by the increase of population and of the greater assemblages now attending schools, hospitals and dispensaries, without any means of isolation, even in the actual presence of the disease. Moreover, an erroneous idea generally prevails with respect to the period during which contagion is possible, this being almost always limited to the actual presence of the eruption, and especially the stage of desquamation. But the period at which transmission is most easy and probably most frequent is that of invasion. It is now admitted almost as a law in pathology that the catarrhal secretions form excellent vehicles of contagion, and we know how abundantly these are produced at the period of the invasion of measles, while, as often but little fever exists, no attempts at isolation are made. Measles, however, is not a disease of the same danger at all periods of life, and from a table given by Dr. Ollivier it is seen that while during 1883, and the first quarter of 1884, of the 1,399 deaths from measles 1,387 of these took place in subjects below 15 years of age, only 12 deaths occurred in those above that age. This may supply the refutation of the popular fallacy that the disease is a beneficial crisis, and that the sooner it is passed through the better. To say nothing as to the possibility of escaping it altogether, it is surely preferable to have it at an age at which it is almost always cured than at one at which it so often proves fatal. In devising prophylactic measures, therefore, while protection should of course be extended to all, it should be directed with special solicitude to young children against one of the diseases which proves most fatal to them.

However useful may be the reiteration of the above views and facts, when we come to prophylactic measures we fear that Dr. Ollivier has little that is new to suggest. As regards measles occurring in private families, he admits that all he can do is to endeavour to dissipate the ignorance which at present prevails concerning the disease. One suggestion, however, that he makes may be useful, namely, to place private schools under medical inspection which at present is confined to public ones. Little or nothing is known about their sanitary conditions, and it is to be feared that these and their provisions in contagious diseases do not compare favourably with those of the public establishments. With respect to hospitals, however, Dr. Ollivier, insists that the various forms of *isolation* may and should be carried out with much greater vigour than at present, and that it is to such means alone that we can look for a diminution of mortality from contagious diseases like diphtheria and measles. The formation of isolated pavilions, such as have been erected at the Hospice des Enfants Assistés, would be an important improvement at the two Hôpitaux des Enfants Malades. Another would consist in the provision of a separate pavilion for the large number of children who are brought for consultations, separating again those among them who are or who seem to be the subjects of contagious diseases.

In a recent number of *L'Encephale*, Professor Ball has a short but interesting and very valuable communication on twin madness, that is to say, on a form of mental derangement arising almost simultaneously in twins, with the same kind of delirium and perfectly spontaneous in each. His paper was based on the observation of twin sisters in whom acute mania, with hallucinations and mystic ideas, developed itself at an interval of only a few days. These occurrences are far from common, and not many instances are to be found in current literature. Professor Ball concludes, after a reference to the naturally intimate union that prevails in reference to twins, that it is to heredity that such instances must be attributed, and that insanity in twins is but the highest expression of heredity.

The arbitrary appointment of Dr. Schweninger to a professorship in the Berlin Medical Faculty by the Minister of Public Instruction at the instigation of Prince Bismarck, to which we recently alluded, has at last called forth a protest from the Faculty, although the Berlin journals pass it by, either because they do not think it worth attending to, or too delicate a matter for them to meddle with. What effect the protest will have remains to be seen, but it is *well* that his colleagues feel at last their position in having a man thus foisted upon them who has no scientific eminence and whose professional character is under a cloud. His advancement was not to stop here, for he was also made a member of the German Sanitary Board without any qualification for the post whatever, and against the protest of the Director, Dr. Struck (also formerly a medical attendant on Prince Bismarck), who, in consequence, resigned his post. Dr. Koch has also, on account of some unpleasant circumstances connected with the affair, given up his seat on the Board, after having declined to be nominated as Struck's successor. Koch, however, will be much more suitably placed as Professor of Hygiene at the new Hygienic Institute which is about to be established. According to the correspondent of the *Allgemeine Wiener Medicinische Zeitung* his present payments are very inadequate. "It seems incredible, but yet is true, that the famous *Bacillenvater* Koch, whose name is received with general recognition to the ends of the earth, received only a salary of 2,000 thalers (300*l.*) with a personal addition of a hunded marks."

That the disciples of Hahnemann of the present day have practically given up their belief in the efficacy of infinitesimal doses, has not yet been realised by that section of the public who believe in homœopathy. It

will dawn upon them some day, gradually no doubt; but if a recent occurrence in Melbourne could be brought before their notice, it is probable that the process of enlightenment would be somewhat hastened. It appears that a young woman died there from the effects of a dose of morphia prescribed for her by a homœopath. She had been suffering from sleeplessness, and, owing to a mistake on the part of the chemist, had taken a powder containing ten grains of hydrochlorate of morphia at a single dose. The practitioner in question Dr. Günst, stated at the inquest that he had intended to order her half a grain of morphia, that is to say a full medicinal dose, the dose according to the "British Pharmacopœia" being from $\frac{1}{12}$ to $\frac{1}{2}$ of a grain. This will rather startle the not inconsiderable proportion of believers in homœopathy who pin their faith to it on the apparently very safe proposition that at any rate it can't do anybody any harm. The modern homœopath who prescribes the ordinary Pharmacopœial doses, is a person who sails under false colours. It is a nice point as to whether he could not be convicted of obtaining money under false pretences, when treating a patient otherwise than in accordance with the laws of Hahnemann.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

It must be obvious to all sensible men, whatever their bias, that the discussion on the over-pressure question ought not to be allowed to remain where it has been left by the publication of Dr. Crichton Browne's report and Mr. Fitch's memorandum. In such a case a verdict of "not proven" cannot be considered as annulling the need of further consideration, and we are glad to see such a cautious journal as the *Guardian*, which no one will accuse of being prejudiced in favour of medical views, declaring that "the whole subject stands much in need of further and more impartial enquiry.' In our last issue we advocated the appointment of a special Commission to consider the question and to take skilled evidence upon it in all its bearings, a suggestion which has met with some support from the lay press. But it is quite to be expected that the Education Department will set its face stolidly against such an enquiry, unless fresh evidence is brought forward to show the necessity for it. In another column we publish some letters on the subject from physicians to our large children's hospitals, who, it will be generally admitted, are of all men the most competent to form and express an opinion upon it, and we shall be glad to receive further correspondence from those who have special experience of children's disorders, whatever be the opinions they have arrived at. Mr. Fitch would probably object to such evidence, because the writers have had no special experience of school work or school management, but such an objection is mere pedantry. If the evil results of school pressure force themselves on the attention of those whose business it is to take note of, and treat them, it is beside the question to affirm, as Mr. Fitch has done in the case of Dr. Crichton Browne, that the witnesses have no knowledge of the mechanism by which such results are produced. It would be as reasonable to object to our setting down drink as a cause of Bright's disease because we are unfamiliar with the inside of public-houses. On the other hand, should these observers state that they find no evidence of the effects of school pressure, much will be done not only to gratify Mr. Fitch, but also to allay the prevalent alarm; for there is no doubt that if the complaints alleged do occur, it is in the out-patient departments of children's hospitals that they will make themselves heard.

Another argument in favour of further enquiry is this, that, whether there be such a thing as educational over-pressure or not, the better informed parents of School Board children have got it into their heads that there is, and it is desirable in the interests of education itself, either that such a notion should be proved in open day to be groundless, or else that the cause of the over-pressure should be removed with equal publicity. Speaking with some experience of a children's out-patient department, we maintain that within the last few months the complaints of parents against school work have materially increased, and that the statement is much more frequently volunteered than it used to be, that over-work at school has been the cause of the symptoms for which advice is sought. It is not contended that such voluntary statements are sufficient to prove the existence of over-pressure, but it is contended that they prove the existence of a certain impression in the minds of parents, which it is worth the while of the Education Department to take note of. Evidently the work of the Board Schools cannot be carried on efficiently without the hearty goodwill of the better educated parents. Medical testimony on the subject may be lightly set aside or argued down, but the prejudice of parents is not likely to be removed by any display of dialectic talent, and, if the wheels of our educational system are to run without friction, the first requirement is to convince the parents that the system is one which favours or at any rate does not injure their children's health.

FREEDOM AND HEALTH.

It is a comparatively modern idea that in our present stage of development absolute freedom is incompatible with perfect health. In the case of the individual indeed it has been recognised for ages that self-control in the matter of appetite and desire is a necessary condition of health and happiness. But it is only in this latter half of the nineteenth century that men have come to realise that the same rule is as applicable to the community as it is to the individual, and that if we wish to have a healthy nation we must be content to surrender a certain amount of personal liberty. The doctrine is a hard one, so hard that the most advanced thinker of modern times, Mr. Herbert Spencer, has set his face against it, and declared war to the knife against the whole body of legislation which is the practical outcome of its acceptance. Writing as we do for medical readers it is quite unnecessary to enter into the facts and experiences by which the doctrine has approved itself to reasonable men. The striking statistics quoted by Mr. Shaw-Lefevre, in his address to the Social Science Congress,

furnish experimental demonstration of its truth, and we may safely challenge the opponents of State interference to prove that similar results could have been obtained without infringing individual liberty. It is quite possible, however, to admit the axiom, and yet to question the advisability of carrying it to its logical conclusions. Health and freedom are blessings, the relative value of which it is difficult to assess, and according as men prefer the one or the other they will class themselves with the party of State interference or that of *laissez faire*. We may pause a moment by the way to deplore the introduction into our political vocabulary of a foreign phrase for a policy which to our thinking would be much more appropriately described by that of "State neglect." It would be easy enough, perhaps, to adjudicate between the rival claims of health and liberty, if it were merely a matter of personal preference. A French peasant before the Revolution, an American slave before the War of Secession, probably thought lightly of health in comparison with freedom; while a confirmed dyspeptic of to-day would no doubt be glad enough to change places with either if with it he could escape his torments. The question, however, is not one of individual preference, but depends on ideal and altruistic rather than egoistic considerations. The health and the freedom involved are national, not individual, and it is naturally more difficult to make up one's mind on a subject which appeals rather to the imagination than to the feelings. These considerations will serve to show in some measure the difficulty of obtaining a universal assent either to the policy of State interference or to that of State neglect.

Doctors are, we believe, as a rule, apt to attach an undue importance to the value of health as compared with other national endowments. They see so much of the waste of life and money, the impairment of faculty and the misery caused by sickness, that they go over without hesitation to the extreme left of the party of State interference, forgetting the thousands of healthy men with whom they seldom come into contact, but with whose personal freedom the State measures that they advocate must of necessity seriously interfere. They see, too, so vividly the effect of sanitary improvement upon the health of a community that they become willing to secure it at any price, ignoring the disadvantages—the expense, the officialism, and often the incompetency—which have been found to be inseparable from State interference. Those of us who are apt to forget or unwilling to allow for this bias of ours, have recently had a striking instance of one of the mischiefs of State interference in connection with the Education Department. Let them imagine for a moment the state of things reversed and an extensive system of sanitary improvement arraigned by the schoolmasters because it interfered with the education of children. Suppose it had been shown that this system was giving us a generation of men and women in robust health who could not read the names of the streets or count their week's wages. Would not the profession have sympathised in such a case with the official view as unanimously as in the over-pressure question they sympathise with the medical and non-official view? And to the impartial observer would not such sympathy have rightly seemed just as wrongheaded as the indomitable bias and official blindness of the educationalists seem to us? Then as to the expense of State interference. The increase of taxation demanded by each increase of officialism is little felt by men with middle-class incomes, but it may be a serious fine upon less well-to-do classes. A pure water supply, an expensive drainage system, palaces and convalescent mansions for infectious cases, and other appliances of health are excellent in their way, and to the community as a whole they no doubt fully repay their cost, but to the struggling clerk and his family they may mean leaky boots, insufficient food, and the renunciation of all those little luxuries and means of pleasure which they need so much to soften their hard life. But such considerations only appeal to a sympathetic imagination, and are apt to be overlooked by the medical hobby-rider.

There must then be a limit at which the advantages of State interference from the sanitary standpoint are counterbalanced by disadvantages from the social and political points of view, and the ends of health will be best served by not pushing its national pursuit to the point at which it would arouse a reaction, such as might defer sanitary reform for generations. It is undeniable that there is a large and not altogether an inarticulate party which views interference with the liberty of the subject in any interests whatever with profound jealousy, and it is the business of practical politicians and those who advise them in matters of sanitary legislation—in other words the highest medical authorities—to see that all measures of State interference work with as little friction and wastefulness, and press as lightly upon the people as possible. With this end in view it is undoubtedly advisable that every form of administration which deals with the national health should be concentrated under a single authority instead of being scattered over many departments as at present, and we are glad to find this view of the question taken up by Dr. Norman Chevers in the admirable address which he delivered before the Health Section of the Social Science Congress on Tuesday last. Medical writers have for years insisted on the advisability of the appointment of a Minister of Public Health, whose duty it would be to take under his official control all those rapidly multiplying details of sanitary administration, which now, in spite of their costliness, fail to obtain the results that might be expected of them for want of a responsible head. Dr. Chevers has shown that there would be enough and more than enough to fill the hands of such an official. He fully "recognises the disheartening fact that without powers, full almost to benevolent absolutism, the benefit conferred upon our suffering fellow-countrymen even by the most enlightened administrators of the public health, must always be very tardy in its advance and very narrow in its scope." But to our mind the most convincing argument in favour of the benevolent absolutism he advocates is to be found, as we have been at pains to show, in the fact that such absolutism will be much more lightly felt and much less seriously resented if it be placed in a single hand, than if it be allowed to remain as at present divided amongst a dozen authorities, each convinced that his own special department is the most important of all,

each distracted by other considerations than those of health, and viewing with jealousy the power and revenues placed at the disposal of rival departments. Surely the health of the nation is a sufficiently important interest to merit the undivided attention of a man of the highest political rank.

THE APPENDIX TO THE REPORT OF THE ARMY MEDICAL DEPARTMENT.

The papers in the appendix have a double interest. They express individual opinions while the report embodies the impressions of numerous medical officers condensed by, and stamped with the authority of, the Principal Medical Officers of stations. And the appendix also gives us later news. For instance, we find a medical report on the Eastern Soudan Expedition, of the present year, by Brigade-Surgeon E. G. McDowell. It is the story of a sharp, short campaign, of hardly more than one month's duration; but it was long enough to demonstrate the pluck of the combatants, and the professional skill, self-denial, and devotion to duty of the non-combatant doctors. The expedition which started from Trinkitat on the 28th February, had special advantages and disadvantages. True, the Navy was at hand to help the Army, and H.M.S. *Orontes* was fitted up as a base Hospital to receive casualties, but the advance to relieve Tokar had to be made into an unknown country, difficult for transport, and short of water. The enemy, too, enormously outnumbered the British force, and it seemed impossible to secure the safety of the rear while the column forced its way onward; so an order was issued that during the advance all casualties were to be taken forward with the fighting men, with the aid of any transport available. A march of three hours' duration brought on a storm of case, shell, and rifle fire, and within a few minutes the medical officers were hard at work. The wounded had always to be carried inside the "Square" to avoid massacre, and as the formation swayed hither and thither, but ever forwards, the dressing places were always shifting, and now and again a wounded soldier would be left "in the open," but by his side was a medical officer with his stretcher party to be found, until opportunity offered for the patient to be carried into the comparative safety of the "Square." We think the endurance of the medical contingent, to whom the Red Cross would have been worse than no protection, can bear comparison with the military ardour of the fighting men. The bearers were short in numbers, and the doctors had to lend a hand to carry the stretchers, and tired of being shot at without shooting in return, we can fancy they found the occupation a relief. After three or four hours of this work, the enemy was put to flight, and the wounded grouped at El Teb. The dressing station equipment could now come up from the rear, and the patients got full treatment and comfortable rest at last. There was plenty to be done that night, for there were 14 officers and 146 non-commissioned officers and men among the wounded. Two capital operations were performed, numerous bullets extracted, and sword and spear thrusts dressed; and we find that all serious operative treatment was performed under chloroform. On the following day the sick and wounded were sent back, while the troops went on to Tokar to find it undefended.

On the 5th of March the troops had again concentrated at Trinkitat. They did not stop long, however, for Suakin was threatened, and thither the troops proceeded, to try conclusions with Osman Digna. Again the Navy was ready to offer a hospital ship, although luckily it was not required. On the 10th of March "the Royal Highlanders" commenced the advance, accompanied by two guns and a few Engineers; and we notice that, owing to the sultry weather, not less than 40 men of the small force "fell out," overcome we must suppose by fatigue, since we are told that only five of the cases could be attributed to heat. It seems to us that it was "too hot" for the other 35 men, whether their symptoms could be classified or not. The remainder of the force marched for the first Zariba, or halting place, on the 11th of March, and on the 12th the troops advanced to bivouac at the second Zariba. There all the field hospital equipment, most of the pack mules, and the ambulance waggon, had to be left. The transport to accompany the expedition was reduced to the cacolets, ten pack mules, a mule to carry water, a pair of field panniers, and a supply of bandages and field appliances. On the following day the battle was commenced. Again the "Squares" pressed stubbornly onwards, and again the wounded had to be carried forward to encounter fresh dangers in their helpless state, and again the doctors shared the extra danger when wounded men were for a time left without the shelter of the protecting squares. But the battle was won, and the victory was so complete, that the sick and wounded had not to be hurried to the base Hospital, and with an escort were the last to leave the camping ground. Once more did British sailors lend a hand, and 200 tars arrived from Suakin to act as stretcher bearers. Even then the want of transport was severely felt, and nearly "a company" of the Royal Highlanders had to be employed to assist the Medical Department. The Army had also to thank the sister service for supplies of condensed water at the base Hospital, for Surgeon Major Catherwood detected considerable quantities of chlorides in the wells; and he and the naval authorities must share the credit of the marked immunity from serious disease which follows a bad water supply. Once more, on the 23rd March, the troops advanced to search for Osman Digna. Again on the march did the troops fall out in large numbers, but on the 27th, when the battle was expected, not a man straggled from the ranks, Osman Digna would not fight, and the campaign was over. We must notice that during the expedition the Eastern Telegraph Company forwarded telegrams free of all charge. Army, Navy, and civilians were true to each other and England throughout. Amongst the papers in the appendix an exhaustive report by Dr. F. de Chaumont on the Hygienic Exhibition at Berlin in 1883, deserves mention, but it is not necessary to dwell upon it, for the author himself says —"there is comparatively little that could be usefully adapted in our own service." His observations, however, on the "Drying Apparatus" of Oscar Schimmel and Co., of Chemnitz, deserve the attention of the Military authorities, and even more that of Municipal authorities and Medical Officers of

Health. The report on the cholera outbreak in Egypt in 1883, by Surgeon-General Irvine, is extremely interesting. It commences with the origin of the epidemic, due, probably, to the Fair at Damietta, where the crowds alternately fasted and feasted on putrid fish and diseased meat, and drank the Nile water, polluted by the carcases of hundreds of bullocks, which had died of bovine typhus. The report does not speak of the agency of flies, as carriers of corruption, but we should suspect them grievously in Egypt. We notice the spread of the disease along the branches of the Nile, and we see that an increase is attributed to the mistaken measure of driving out the inhabitants from infected localities. This is suggestive, for it touches on the great remedial measure adopted in India, and followed now in Egypt, of moving troops from infected places. We are told—"In nearly every instance, the movement of troops was followed by the outbreak of cholera in camp." Still we find that on a second or third change of station the spread of cholera was stopped. Did the improvement arise, we wonder, from some locality being at last reached where the cholera germ could find no breeding place; or had the troops found a better atmosphere to breathe; or, finally, had the disease exhausted itself? We notice that at the outbreak of the epidemic at Cairo, a *sudden atmospheric change* took place, "the air became heavy, hot, and motionless, bird-life ceased in the vicinity, and the heat became greater and the wind force less." We are told that some have asserted that the movement of troops into camp in Egypt was too long delayed, but we think there is much to be said in explanation. In India vast tracts of country are available, in Egypt they are limited. Native labour is cheap and easily procurable in India, and dear or not procurable in Egypt, and an Indian march through the wildest country is a different thing from an Egyptian tramp through the hot sand. Whether the movement of troops to avoid cholera is right in India and wrong in Egypt, we cannot determine, but we know that it would be impossible in England; and at home it becomes all the more necessary to guard against polluted air, food and water, and at least leave no congenial soil for the cholera "germ" to develop itself. Against atmospheric disturbance we must be to a great extent helpless. We notice that in Egypt those who attended on the sick suffered *out of all proportion* to the other branches of the service. A strong opinion formerly prevailed that the attendance upon cholera patients involved *no extra risks*. We observe that "Cordons" were found useless, "but the burning of large fires produced good results," and with regard to treatment, nothing new was more successful than the old tried remedies which have so often failed. There is another report on cholera at Ramleh, by Deputy-Surgeon-General Fox, but, although it is worth reading, it introduces, we think, no point on which we have not touched. We observe, however, that the state of the *weather* preceding the epidemic is again noticed. Once more enteric fever crops up. Surgeon-Major Godwin describes an outbreak among the crew of the War Department ship *Stanley*, on her return from the Mediterranean in September, 1883. The cause is not only a matter of doubt, but also of angry dispute, as to alleged facts, and we can therefore venture no opinion. There is a second paper on enteric fever at Athlone, by Surgeon-Major Knox. He gives bad water as the cause, and also notices the long period of incubation of the disease. There are some other interesting papers on remarkable "cases" in the appendix, but we have no space to spare. We believe we have said enough to show that the supplement is as worthy of attention as the report itself.

REVIEWS AND NOTICES OF BOOKS.

SONSINO ON CHOLERA.

Appearing at a time when all Europe is contemplating the oncoming of a foe who has long obtained a foothold within her boundaries, and whose victims are now beginning to be counted by thousands, Dr. Sonsino's pamphlet *On Cholera in Cairo in* 1883,[1] will be read with interest by everyone anxious to be *en rapport* with the literature of the present day on that subject. And although at the very commencement Dr. Sonsino disclaims the discovery of any facts that may with strict accuracy be termed new and important, the wide experience of so good a clinical observer is of the utmost value in these latter days when the discovery of a new bacillus seems to be of more importance than the life of a patient. As Physician to the Kasr-el-ain, and Ibraim Pasha Hospitals, Dr. Sonsino had abundant opportunities of research during the epidemic of 1883, and the results, shortly embodied, were read at the *Società Medico-fisica* of Florence at the meeting of the 13th July last. We may at once say that these results are, on the whole, reassuring, and though as yet the true specific for cholera, if any such exists, remains undiscovered, the disease, if treated from the very onset, need not show a higher death-rate than pneumonia in those attacked. That the epidemic has in Naples assumed proportions little short of appalling cannot be denied, but it is not to be wondered at when the insanitary conditions of that city are borne in mind. The acme of airlessness, squalor, filth, and bad drainage is, in Europe, reached only in the purlieus of Naples, where conditions exist which can alone be realised by those who have actually been brought face to face with the horrors of the Mercato. To argue from the death-rate in such localities would be unfair, but even in the Cairo hospitals the mortality was only from 50 to 66 per cent. of those admitted; the admissions being, it must be borne in mind, almost without exception in the stage of collapse. But in cases where treatment was adopted from the outset, the most favourable results were obtained. Of only ten cases attended by Dr. Sonsino in private, not one proved fatal; and the experience of his colleagues in a large number of similar cases was nearly as fortunate.

Dr. Sonsino recognises four well marked stages of cholera, namely, premonitory diarrhœa, cholerine, collapse and reaction, and it is this first stage of initial diarrhœa, or rather the timely treatment of it, which

[1] Sul Cholera in Cairo d'Egitto nell' anno 1883. Ricordi del Dott. P. Sonsino. Communicazione fatta alla Società Medico-fisica Fiorentina nella seduta del 13 Juglio, 1884.

forms the keynote of his pamphlet. He insists upon its almost invariable occurrence, and has but little belief in the so-called cases of *cholera foudroyant*. We are certainly inclined to think that a close investigation of this class of cases would in the great majority of instances reveal the existence of previously unnoticed intestinal derangement, and Dr. Sonsino has well adduced in support of his opinion the fact of the almost constant presence, *post-mortem*, of alterations in the small intestine which could by no possibility have been produced in the course of a few hours. In all cases where it is practicable, therefore, in schools, barracks, penitentiaries, and so forth, he would have the strictest watch maintained, in order that all cases of diarrhœa may be at once placed under treatment, for it is by these means, and these means alone, in his opinion, that an epidemic can be stamped out.

Passing to a general consideration of the disease, it is of the highest interest to note that in the only case in which he was able to make a microscopic examination of a cholera dejection immediately after emission, Dr. Sonsino recognised the presence of the *Cercomonas hominis*. These protozoa were, it may be remembered, described and figured by Davaine, in his *Traité des Entozoaires*, as having been found in the stools of cholera patients so long ago as 1854. But little attention appears to have been paid to the subject since, and owing to the complete breaking up and destruction of these minute organisms immediately on the cooling of the *dejecta*, the greatest care in the examination is necessary for their recognition. It is indeed, as Dr. Sonsino remarks, impossible to estimate the importance that this parasite may have in the pathogenesis of cholera, and it is greatly to be desired that the attention of all future investigators should be directed towards the elucidation of this point.

A clinical fact of considerable importance was the invariable rise in the rectal temperature of patients in the third stage, the elevation being in proportion to the gravity of the case. In one instance, shortly before death, the thermometer registered 104° Fahr. and in no case at the height of the algid stage was the temperature in the mouth and axilla observed to sink below 95·4°, though it is possible that this may have been partially owing to the high atmospheric temperature that obtained during the epidemic. Anuria was a constant phenomenon, and in Dr. Sonsino's opinion one of the most common factors in the production of a fatal issue. The retention in the blood and tissues of the waste products of the body leads to the so-called *stato tifico*, in other words to uræmic intoxication, and on this account he would not advise the checking of the vomiting by means of drugs, regarding it as a vicarious means by which the organism is relieved from those injurious products which would otherwise have been excreted by the kidneys. Diphtheritic ulceration of the vulva and vagina came twice under notice, and in both instances death ensued. Urticaria, roseola, erythema simplex, and erythema nodosum were observed, and in general it was noticed that the appearance of these eruptions in the stage of reaction was of favourable import.

The *post-mortem* appearances characteristic of the disease may be described as those of a special acute catarrh of the small intestine, and call for no particular remark, but as a contribution to helminthology it is very interesting to note that in not less than one-fourth of the autopsies, Dr. Sonsino recognised the characteristic appearances due to the infarction of the ova of *Bilharzia hæmatobia*, their chief seat being the bladder, ureters, and vesiculæ seminales. Such a proportion appears enormous, but it is important as tending to show that the affection is not necessarily of such serious omen as it is generally considered.

In common with almost everyone who has had any large experience of the malady, Dr. Sonsino has no belief in the infectiousness of cholera. In the large Kasr-el-ain Hospital but one case occurred during the whole epidemic, and in hospital at Bulacco there was likewise a single case. The value of these facts in the prevention of such unreasoning panics as characterised the onset of the epidemic in the South of France is incontestable.

The Pathology, Diagnosis, and Treatment of Diseases of the Rectum and Anus; by CHARLES B. KELSEY, M.D. Surgeon to St. Paul's Infirmary for Diseases of the Rectum, New York, 1884. Sampson Low, Marston, Searle, and Rivington.—If the title of this book were altered by omitting the word pathology, it would be more accurate and less deceptive to its readers. The pathology is of the worst kind, a compilation without practical knowledge of the subject in hand. The old and new views are hopelessly mixed and no intelligent interpretation is made of the various opinions extracted from different authors. We have not seen a single histological drawing which is original. This seems scarcely fair from an author who has given pathology the leading place in the title to his book. There are a number of woodcuts, but they are all borrowed from other published works. One would have thought that a surgeon who had any practical knowledge of pathology would have examined microscopically a few of his cases, and given us the benefit of his opinion as to the present state of pathological knowledge upon the subject about which he is writing. On the other hand, the diagnosis and treatment are very fairly written. They show that the author has had practical experience in the treatment of the diseases with which he deals, that he has weighed well the various opinions held upon the subject, and that he has formulated a definite line of action for himself after careful consideration. The book opens with 35 pages on the anatomy and physiology of the rectum and anus, which seems to us totally unnecessary, especially where the pathological anatomy is so feebly and inefficiently treated. The congenital malformations which follow next in order are shortly described in the usual manner. The author advocates an early resort to inguinal colotomy, and gives his reasons for the preference of this to the lumbar operation, when the surgeon fails to reach the bowel from the peritonæum. He says also that attempts at establishing an anus in the anal region after the performance of colotomy are attended with great danger, and are generally unsuccessful. This is true, but he does not say what we think is a common experience, that the child rarely lives long enough for the surgeon to attempt such an operation. They seem generally, even in the favourable cases, after colotomy to fade away and die in the course of two or three weeks. No peritonitis is found to account for this. The usual rules regarding examination and operation are given in a separate chapter, and call for no special mention. The inflammatory affections follow next, the author taking great pains to draw prominent attention to the difference between a deep pelvic abscess, and abscess in the ischio-rectal fossa. The anatomy is very properly introduced to explain the different courses such abscesses are likely to follow. A few cases are also given in detail to illustrate the deep pelvic abscess in the male, which is certainly a rare but well known disease, taxing the diagnostic powers of the surgeon to the utmost in its early stage and his

boldness of treatment when fully formed. Ischio-rectal abscesses and fistulæ obtain the requisite amount of notice and their treatment is fully and carefully discussed. The chapter on hæmorrhoids is disfigured with some ghastly coloured drawings. They are really quite unnecessary, and serve no useful purpose whatever. The frontispiece is if anything more offensive, as it is in a more prominent position. If they were of any practical value they might be tolerated for the knowledge they convey, but no one would allege that they are of any use either to the student or practitioner. In the internal treatment of hæmorrhoids, the author advocates the injection of carbolic acid on the ground that, when properly employed, the patient need not be confined to bed but follow his usual occupation. He recommends a solution of five per cent., of which five drops are to be injected by a hypodermic syringe vertically into the substance of the hæmorrhoid. This is to be done once a week till all the hæmorrhoids have begun to shrink and disappear. He describes the treatment both by ligature and by clamp and cautery, but he evidently thinks most highly of the treatment by injection and has rarely resorted to any other. For prolapse also the author advocates the use of carbolic acid with the hypodermic syringe. There is a very useful and interesting chapter on rectal hernia and rupture, cases collected from various publications are quoted and much information given that does not ordinarily appear in English works on the rectum. The rest of the book is very feeble from the evident absence of pathological knowledge. But the treatment of non-malignant stricture by external proctotomy is strongly and forcibly advocated. There is also a good *résumé* of the operations for the relief of cancer of the rectum and sensible conclusions are drawn as to the kind of cases in which extirpation is suitable. Altogether this is probably the most useful part of the book and may be highly commended for the clear and satisfactory manner in which a difficult subject is handled. The book closes with a long list of foreign bodies which have been found in the rectum. Some useful formulæ are also given for rectal alimentation.

London Water: A review of the present condition and suggested improvements of the Metropolitan Water Supply: By Major-General A. De C. Scott. Loudon: Chapman and Hall, 1884. Pp. 119.—The question of the London Water Supply involves the provision of not less than 150 million gallons of potable water to a population of over 4 million persons, with means for a future increase of the supply to 200 or 250 millions. General Scott approaches it from the standpoint of a consumer, one of the public who, though not a chemist, yet as a member of a scientific department of the service, is competent to form a judgment on questions of a scientific character, and to weigh the evidence and opinions of experts. The work opens with a sketch of the parliamentary history of the water companies, and of the several Commissions appointed to report on the water supply. The third chapter contains a number of well authenticated instances of the communication and spread of disease by means of polluted water, especially of cholera, and typhoid fever, from the cholera epidemics of 1832, 1848, &c., down to the outbreak of typhoid at Caterham. The author next discusses the rival processes of water analysis, and comes to the conclusion that though chemical analysis alone may lead to fallacious inferences, and is quite incapable of detecting specific poisons, yet, taken with a knowledge of the source and previous history of the particular water, it may afford valuable information. Here, as elsewhere, he is inclined to place most reliance on the procedure and opinions of Dr. Frankland and the Rivers Pollution Commission, of which Dr. Frankland was the soul. Sewage purification, whether by irrigation, filtration, or chemical treatment, has never, he maintains, succeeded in producing an effluent that could safely be admitted into a river used for the supply of water for domestic use. He properly gives the preference to broad irrigation, but we cannot but think that he scarcely does it justice. He has no faith whatever in the self purifying power of running water, maintaining with Dr. Frankland that the apparent reduction in the organic matter is due simply to dilution by the increased volume of the stream, and that the disappearance and subsequent reappearance of the dissolved oxygen is a purely local phenomenon in which the organic matter takes little or no part, brought about by the evolution of H_2S from putrescent deposits. An excellent description of the geology and hydrology of the Thames basin is followed by an account of the various schemes that have been proposed for the supply of the metropolis with pure water from distant sources. Those for bringing water from Wales or the Lake District he considers quite feasible from an engineering point of view, and not more costly than many irrigation works in India and Italy. He makes also the pertinent observation that the unconditional condemnation of the Thames and Lea as sources of water which could be fully justified by the palpable evidence afforded by analyses of the utter failure of the efforts of the Conservators to reduce, or even to check the increased pollution of these streams during the last twenty years, would depreciate the value of the existing companies' property enormously. The valuation would no longer be based on the prospective profits of these undertakings, as was the case in 1880, but simply on capital expenditure, and the appraisement of so much of the works as would be still available for the distribution of the new supply. The schemes for drawing on the water-bearing formations of the Thames basin he views still more favourably since, in addition to the foregoing considerations, they could be carried out gradually and tentatively, and, moreover, might prompt the present companies to anticipate the action of the State, or central authority of the future, with a view to enhancing the purchase value of their property by following the example of the Kent Company, and substituting wells and other unimpeachable sources for their present river intakes. Even should such sources prove insufficient, the money would not be lost for, in the event of the Welsh or Lake District schemes being resorted to, the surplus waters would be easily sold to provincial towns. A double supply, however, of pure water for domestic and of impure for general purposes he considers open to overwhelming objections. But the constitution of a representative authority for the whole metropolis with its suburbs, having plenary power to deal with the water question, and that without waiting for the passing of a London Government Bill, is, in the author's opinion, an urgent and absolute necessity.

Report on the London Water Supply for 1883; by W. Crookes, F.R.S., Professor Odling, M.B., F.R.S., and C. M. Tidy, M.B.—In presenting their third annual report on the waters of the seven companies who derive their supply wholly or in part from the Thames and the Lea, the authors take occasion to animadvert somewhat severely on the language employed by Professor Frankland in his official reports. They do not object to his process or to his results, for they now employ the former as well as their own, and his results and theirs substantially agree; though they do consider it open to exception that official work should be conducted in a private laboratory by Dr. Frankland's own son instead of as heretofore in a public institution and by independent assistants. But while acquitting the professor of any intentional misrepresentation or motives other than what he conceives to be the public good, they complain that, as it seems to them, he "fails to recognise the judicial character of the position he occupies as a quasi referee between the public and the water companies, and that accordingly he does not hesitate to use his position as a means of directly or indirectly advocating his own individual views on water supply." They object to his use of the expression "*during* the month" when all his samples are taken on a single day which may be exceptionally unfavourable, whereas they make an optical examination of each water daily (Sundays excepted) and every day one full analysis by their own and by Dr. Frankland's method of a sample taken from each company's water in rotation, *i.e.*, a weekly analysis of each. But the gravest count in their accusation is that "Statements and comparisons, of which the verbal accuracy cannot be impugned, are made use of to suggest conclusions which would not bear being put forward definitely on the strength of the analytical results made use of for their suggestion." Though for own part we have no hesitation in stating that we cannot view with complacency the use of a river

that has received the sewage of over half a million persons in the crude form, and of as many more after some process of purification, we must agree with the demurrers here. There is no reason to doubt that a *pure* lacustrine or fluviatile water is as wholesome as, if not more so than, one drawn from deep wells highly charged with calcareous matter, and that in judging of the quality of a river water from the indications of analysis (of the validity of which we need not here express any opinion), it would be obviously fairer to compare it with one of acknowledged purity of the same kind than with water derived from a totally different source, and consequently of different composition. For example, if the waters of Loch Katrine and Thirlmere be unimpeachable, they, and not the Kent Company's deep chalk wells, should be the standard by which to judge those of the Thames, the Lea, and new rivers. But while it answers Dr. Frankland's purpose to state that they contain 2 to 3½ times as much "organic impurity" as that of the Kent Company, he persistently ignores the fact that the Glasgow and Manchester waters frequently contained more than those of the Chelsea and Grand Junction Companies, though their entire freedom from "previous sewage contamination" no one ventures to dispute, certainly not Dr. Frankland, who has often advocated the use of such lakes as sources of the purest water. Again, in reporting on the River Companies' waters, nitrates and nitrites are always represented by him as indisputable evidence of sewage pollution; but he finds it convenient to pass unnoticed the fact that his favourite Kent Company's water generally contains a still larger proportion of these. Lastly, he always mentions the presence of "moving organisms," in suggestive association with sewage pollution, &c., though when speaking of the Manchester water he declared that they had no hygienic significance whatever. They are, in fact, always found in lake and river waters, though naturally enough not met with in that derived from deep wells. Such special pleading is really unworthy of a man of science.

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XII.—Section of Dermatology and Syphilis.

(*Continued from page* 415.)

At the sitting on Friday, August 15th, papers were read by Drs. Bockhardt, of Würzburg, and Neisser, of Breslau, on the Infectiveness of Chronic Gonorrhœa and its duration; also by Dr. Wulff, of Strasburg, on Psoriasis. Interesting discussions took place on both these papers of which the following is an abridged report.

Discussion on Chronic Gonorrhœa.

Professor Neisser (Breslau) said that it was true, as Bockhardt had asserted, that gonococci were present in chronic cases of gonorrhœa, but this was not always the case. It was not absolutely certain that the gonococci always meant gonorrhœa, but the difficulty of answering this question was certainly increased by the fact that they are very difficult to diagnose from other micrococci. He had examined many old cases, some as old as 14 years, and in 77 of those in which he could be sure that no re-infection had occurred, he found gonococci 51 times, while in the remaining 26 cases he could find none. Several of these he had examined only once, while in order to be certain it was necessary to examine during a period of 7 or 8 days always using an oil-immersion lens. In other cases, however, in which this had been done, he could still find none, and these were presumably non-infectious; but in a separate set of four patients he was unable to discover any cocci, although it was certain that they had infected women. The cervical glands of women (Bumm) and the ducts of the glands of Bartolini (Neisser) are very favourite lurking places for gonococci, but he doubted if it were possible to diagnose gonorrhœa in women by the examination of the secretion.

Professor Bergh (Copenhagen) thought this was perhaps partially due to the size of the gonococci, which were markedly smaller in women than in men.

Professor Janowsky (Pragne) found gonococci in 22 instances of 30 cases of chronic gonorrhœa which he examined. Sometimes he had to examine during an interval of from 14 to 20 days before finding them, no coitus having taken place during that time. Once he found a mass of gonococci where there had been no coitus at all. He agreed with Neisser that an oil-immersion lens was necessary for the examination.

Dr. Michelson (Königsberg) did not believe from his experience that chronic gonorrhœa was capable of absolutely causing gonorrhœa or generating gonococci in another.

Professor Neisser was not himself quite sure as yet about the power of infection in such cases. He thought it was probable but not necessary. He knew of undoubted cases of infection from chronic cases. Janowsky's sudden outburst of gonococci probably resulted from the liberation of a mass of them which had been mechanically pent up for some time in a fold of mucous membrane or in the mouth of a gland.

Dr. Unna believed that blenorrhagia cervicalis of prostitutes was the common cause of gonorrhœa among men, and considered that all prostitutes should be examined for blenorrhagia in every corner before being passed.

Professor Pick (Prague), as the result of a very large experience, believed that cervical blennorrhagia in prostitutes was not nearly so common as was generally stated. He believed that the most common seat of the secretion was in the folds around the urethral opening. He knew of cases where no gonococci had been found for 14 days, but believed the negative results to be always due to insufficient examination. The cases should be examined carefully each day.

Discussion on Psoriasis.

Dr. Wulff (Strasburg), who opened the discussion, said that Lang (Innsbruck) was the first to suggest a definite standpoint in the confused ætiology of psoriasis, when he asserted it to be a parasitic affection due to a fungus which he described and named epidermophyton. This discovery had received little confirmation, but Wulff was now able to find the fungus in every case of psoriasis which he examined. It had been objected that the heredity of the disease and its incapability of transmission precluded the possibility of a fungous origin, but he held that the heredity was merely a predisposition, and that the inability to be transmitted was shared by pityriasis versicolor, an undoubtedly fungous disease. Köbner had extended psoriasis by scratching and irritating the skins of psoriasis patients; this extension was not, however, produced by nervous irritation, but by affording a good hold for the fungus in the skin. It was the fungus which caused the white patches to stand out from the brown when chrysarobin was applied to the skin; by this means it could be detected on the skin before the eruption had appeared. Wulff believed, although he could not prove, that the fungus affected the blood primarily, and in passing outwards irritated the skin. He would class it provisionally with pellagra.

Professor Neisser (Breslau) had tried repeatedly to find the fungus described by Lang but had never succeeded. The patches of white colour might be the sites of old morbid processes only partially stained by chrysarobin; he had had such a case. He opposed Wulff's theory of propagation from within outwards, for the fungus was only found in the outer layers of the horny layer.

Professor Pick agreed with Neisser, but could always find the fungus in abundance in cases of psoriasis; he had however found them in equal abundance in cases of squamous eczema. There was nothing about the fungus to support Lang's hypothesis. At present we had no standpoint concerning the cause of psoriasis. It often followed scabies, eczema, &c.; in these cases he always found psoriasis, or a suspicion of psoriasis, in some member of the family. The white patches he believed to be simply due to the action of the alkaline secretion of the skin on chrysarobin. He saw no analogy between pellagra and psoriasis.

Professor Lipp (Graz) had tried to transmit psoriasis, but had never succeeded, nor did transmission occur in family life, between married people, or among doctors having charge of psoriasis cases. The successful treatment by antipsoriatic remedies, as arsenic internally in small doses, also spoke against its parasitic origin.

Dr. Jamieson (Edinburgh) had never been able to find the parasite in the skin, but only on the scales.

Dr. Unna related a case in which three children of a family were affected with psoriasis after the entry into it of a servant girl suffering from the disease. He agreed with Pick about the chrysarobin staining; he had frequently observed the white spots where he had covered the whole body with the drug.

Professor Lang (Innsbruck) said that the hypothesis of a fungous origin did not necessarily imply the easy curability of the disease; pityriasis versicolor, a superficial fungous disease, was difficult to cure. Disposition played a most important part, hence the difficulty of contagion or inoculation. He was of opinion that the fungus came from without and not from within, otherwise some of the internal organs would be affected; it was floating about in abundance in the air, but only occasionally found a suitable propagating ground. Probably the favourite spots were those in which it obtained the firmest hold, *e.g.*, on the knees and elbows, and also in squamæ, like those of chronic eczema. There were indeed two types of psoriasis, one appearing on the knees and elbows, the other, an eczemoid psoriasis, appearing on the elbow and knee flexures, axilla, and groin. He could see no resemblance between this disease and pellagra; in the one the skin affection was the primary trouble, in the other it was quite subordinate to the general bodily condition.

Professor Pick held that the question could not be further discussed until the capability of inoculating the disease by means of this fungus had been demonstrated.

Section of Medicine.

On Chronic Diarrhœa and Dysentery in persons returned from tropical to temperate climates.

Sir Joseph Fayrer (London), and Dr. Joseph Ewart (Brighton) dealt with this subject in a conjoint paper. After discussing the pathology, causation, and symptomatology of these complicated and grave affections, their treatment by means of a pure milk diet was considered. Beyond the occasional employment of lime-water, five minim doses of laudanum and a saline aperient, when indicated, to remove portal plethora, no other medicine is demanded. In chronic dysentery, the opiate is best administered in the form of a small enema. In both affections complete rest, and the preservation of an even body temperature, in an airy and well ventilated room, are essential. Milk alone, or diluted if necessary, at first in small quantities every half-hour or every hour, and gradually increased until three or four quarts are consumed in twenty-four hours, promotes rapid recovery in a vast majority of cases. When, in chronic dysentery, the ulcers are healed under this management, convalescence is more speedy than is that of chronic diarrhœa, apparently for no other reason than that the degenerations of the peptic and intestinal follicles, the villi and liver-cells are less apparent in the former than in the latter disease. A series of cases is furnished in support of the treatment recommended.

Section of Military Medicine.

Sunstroke and Thermic Fever.

Sir Joseph Fayrer, in a paper on these conditions, divided the subject into three heads—(1) Syncope from exhaustion. (2) An analogous state in which the respiratory centre is seriously implicated. (3) Thermic fever, or great overheating of the whole body. The general effects of exposure to a high temperature in occasioning impaired health was also discussed. Treatment consists in reducing the exalted temperature of the body, but in doing so, undue depression of the vital powers is to be avoided. The lesions of insolation and thermic fever are often more or less enduring. Hence, care must be exercised in advising those who have suffered from them to return to work in tropical countries. As a general rule, it will be found that they are permanently disqualified for further occupation in the tropics or sub-tropical regions.

Typhoid or Enteric Fever among Soldiers in the Tropics.

Dr. Joseph Ewart (Brighton) read a paper on this subject. Until Scriven recognised the disease in Europeans, and himself in natives of India, more than thirty years ago, it had always been grouped among continued and remittent fevers. It now causes more deaths among the troops than cholera! Its prevalence is altogether independent of malaria; but intimately connected with rise of temperature. The term "typho-malarial" is objected to. It would be as reasonable to call a case of small-pox ushered in by ague, liable to recur, and modify the course and character of the exanthem, if not controlled and checked by quinine, variolo-malarial fever. The ætiology is exhaustively disposed of, and it is pointed out that, as contended by Sir Joseph Fayrer, and many others, "it is quite possible that the fæcal filth theory of causation may not cover the whole ground, and that the poison may perhaps thrive and propagate in other kinds of filth."

ABSTRACTS AND EXTRACTS.

PNEUMONIA.[1]

This report, which has been drawn up by Dr. Octavius Sturges and Dr. Sidney Coupland, deals with a total of 1,065 cases, of which 192 proved fatal. The exact proportion of males and females cannot be given because some of the observers omitted to mention the sex in their reports, but 704 were known to have been males and 356 females, the proportion of males to females being thus as nearly as possible as two to one. As regards habits, of 655 returned as temperate 114 died or 17·4 per cent.; of 267 returned as total abstainers 28 died or 10·4 per cent.; whilst of 105 returned as intemperate there died 45 or 42·8 per cent. As regards food, of 988 stated to have had sufficient food 175 died or 17.7 per cent.; whilst of 60 said to have had insufficient food 15 died or 25 per cent. The coincidence of other diseases in the same house at the same time with a case of pneumonia was rare; as the reporters say, no disease occurs in the same house with pneumonia so frequently as pneumonia itself; the only diseases at all apt to be present were found to be bronchitis and tonsillitis. As regards a family history of lung disease, phthisis was met with in from 17 to 18 per cent. of the cases. It is quite exceptional, the report says, to find subjects of pneumonia who are of phthisical family exhibiting apex pneumonia. In the few instances where this actually happened, the seat of disease, judged by its course and termination, did not display any phthisical character. Enquiry into the previous diseases of the patients did not reveal anything of importance except the frequency of previous attacks of pneumonia. Out of 967 in whom the point was ascertained, 101 had suffered from pneumonia previously, and of these 19 died; only 16 persons were returned as having had more than two attacks of pneumonia, of these 4 died. The presence of a rigor at the commencement of the disease was noted in 782 cases, and its absence in 193, the point not being determined in 90; a further enquiry as to its relative frequency according to the part of the lung affected showed that in apex pneumonia a rigor was present three times out of four, and in basic pneumonia four times out of five. The right lung was affected more often than the left and the left more often than the two together, the right base being by far the most common seat of the disease, and next in order of frequency the left base. The crisis occurred most frequently on the seventh day, and with equal frequency on the sixth and eighth days, it occurred on the fifth day rather more frequently than on the sixth or eighth day, and twice as often as on the ninth day. It took place on the fourth day more often than on the ninth, and on

[1] Report of the Committee on Pneumonia. The Collective Investigation Record, Vol. II., 1884.

the ninth more often than on the tenth. From the eleventh to the fourteenth day subsidence by crisis was extremely rare. Gradual subsidence was more common than sudden in the proportion of about four to three, the latter being especially seen in cases of apex pneumonia. Of the 175 deaths in which information as to the day of the disease was given, 70 died on the sixth, seventh or eighth days. Amongst the general conclusions of the reporters we note in reference to sanitary conditions, first that defective house drainage and sewer gas poisoning may both cause and favour the spread of pneumonia, and secondly that the affection when of this origin is not of exceptional severity or high mortality. Alcoholic excess is stated to be not only an important factor in determining the issue of pneumonia, but is often of itself the actual exciting cause of the affection. Fatigue and mental emotion rank next to alcoholic poisoning as the most unfavourable vital conditions wherewith to meet it. As to the infectious character of pneumonia they think that it may exist under certain insanitary conditions including thereby deficient ventilation, but they state at the same time that pneumonia as commonly seen has no infectious character. They do not find that there is such a thing as an inherited tendency to pneumonia, or that there is any other form of lung disease to be met with in excess in the direct family history of the patients. As to the seat of the disease they say that the apex is as favourable for the patient as any other, that no tendency is observable on the part of patients of phthisical family to exhibit pneumonia at that seat, and that in the exceptional event of pneumonia occurring in a patient of phthisical family, such pneumonia shows no tendency to degenerate into phthisis, but undergoes resolution as quickly and as completely as another. They conclude their report with the following statement:—(1) Of pneumonia as a local affection there are examples in plenty, especially in early life. Its onset is sudden, and due to some notable chill or exposure of the body; it has all the characters of acute inflammation with a marked tendency to spontaneous recovery, and is largely dependent on certain meteorological conditions which are productive also of other forms of lung inflammation. (2) Distinguished from these are examples of secondary pneumonias which arise in the course of many acute and specific affections and which do not at present concern us. (3) In addition to these two well recognised forms of the disease, clinical observation, we think, bids us recognise a third variety—a pneumonia due to causes not directly injurious to the lung, but operating through the blood or nervous system. It too is properly a secondary pneumonia, for it is but the signal and expression of anterior vital changes; yet owing to the absence (or the apparent absence) of any other organic lesion, it is not so accounted. Although anatomically indistinguishable (so far as we know at present) it deserves separate recognition in virtue as well of its distinctive origin as of the fact that it has a variable rate of mortality, and a gravity which is not commensurate with the extent of lung tissue involved.

GONORRHŒAL RHEUMATISM.

M. Terrillon, lecturing at La Charité, observed that by a curious chance he had two patients in his wards suffering in a very similar manner from this somewhat rare affection. They were both young men who had been for a few weeks the subjects of subacute gonorrhœa, when they were seized with severe inguinal pain with fever and *embarras gastrique*, one of the patients feeling considerable pain and tenderness on pressure in the vicinity of the hip-joint, while in both the movements of the joint were somewhat impeded, and in both there was a deep-seated doughy resistance in the inguinal region. The conclusion arrived at was that the bursa situated beneath the psoas was the seat of pain, but this continued for some time rather obscure. This rheumatic affection is not merely a coincidence of the gonorrhœa, but a form of rheumatism which develops itself without any other cause whatever than the gonorrhœa. It is indeed not rare to meet with patients who, having been cured of a first attack of rheumatism occurring under these circumstances, do not suffer from subsequent attacks unless they contract a second blenorrhagia. This form of rheumatism has its peculiarities, for it attacks females very seldom, and nearly confines its attacks to the large joints—the hip, knee, and elbow; the smaller joints only suffering secondarily. Moreover, it is generally monoarticular. Sometimes it is attended with effusion into the joints, while at others it gives rise to anchylosis in even 10 or 15 days, the rapid formation of fibrous adhesions rendering this incurable. This rheumatism may, however, affect other parts than the joints. Thus (1), what seems to be an articular affection may really be one affecting the neighbouring tendinous sheaths, a tendinous synovitis with swelling and effusion. (2) It may invade the muscular system, the muscles of the neck, the deltoid, or even the motor muscles of the eye being affected. (3) It may manifest itself in the serous bursæ, near the joints, as the hip, patella, or elbow. (4) It may attack the sciatic nerve, and this is not very rare. (5) M. Guyon first pointed out a doughy state of the cellular tissue that may occur, accompanied by pain and heat. (6) Many examples exist of its attacking various tissues at once in the same region. Gonorrhœal rheumatism, moreover, is peculiar in not giving rise to any visceral phenomena, so that affections of the chest do not result from it. It is also fugaceous and does not reappear, except after a new gonorrhœa. The relation between it and the discharge is somewhat curious, for in some patients who had had abundant discharge, this diminishes as soon as the rheumatism is manifested; but this is not constantly the case. As to its prognosis, the disease may be said to be of but slight importance when it attacks only the tendinous sheaths, the bursæ, and the muscles; but this is far from being the case when a joint is invaded, for so liable is it for anchylosis to take place, that our first object should be to place the limb in the most favourable position in case this should occur. Even when anchylosis does not occur, stiffness of the joint is one of the most common sequences, and this, accompanied as it often is by muscular atrophy, is long in disappearing. In these cases we must allow the joint to gradually resume its movements and not endeavour to force this by violent measures, under pain of finding the fibrous tracks increase in number and thickness. This state of atrophy and stiffness is much benefited by electrical currents, by *massage*, by sulphurous douches, and by a course of mineral waters at Aix. The treatment of gonorrhœal rheumatism is not the same as that of ordinary rheumatism in which salicylic acid is the heroic remedy. Here it is of no avail, and we have to content ourselves with revulsives, chiefly blisters, repeated as many as three times at intervals of two or three days. When the effusion is abundant we should not hesitate to puncture the joint which is an excellent proceeding, relieving it at once of a mass of liquid which would require at least two or three weeks for its absorption. After the puncture effectual compression should be applied. Finally, the disease leading to a considerable depression of strength in the course of a few days, its subjects should be carefully "tonified" and the tonic *par excellence* in such a case is the sulphate of quinine.—*Gazette des Hôpitaux*, August 7.

PATHOLOGY.

Chyliform Ascites.—Under the somewhat lengthy heading of "Mitral disease, cardiac cachexia, asystolism, enormous liver, anasarca, double hydrothorax, chyliform ascites, paracentesis of the abdomen giving exit to two litres of milky fluid," Dr. Letulle describes a very interesting case of this rare affection in the *Revue de Médecine* for September. The patient was a boy aged eight who had had two attacks of rheumatism which had left him with mitral valvular disease. When he came under observation there was a good deal of cardiac dyspnœa, and some effusion into both pleuræ, but the effusion into the abdomen was the chief source of distress. The abdomen was considerably distended, and the skin marked by the enormous bluish venous networks. It was decided to draw off as much fluid as possible from the abdomen. Accordingly he was tapped with a Potain's apparatus, and an opaque, white,

or slightly yellowish, serous, non-fibrinous fluid withdrawn. It ran slowly and in about ten minutes two litres had been drawn off when it stopped running. Microscopical examination of the fluid in the fresh state showed that there was a large quantity of emulsified fat in it. After standing for some time, a deposit settled at the bottom of the glass, consisting mainly of red blood discs, which were noticed to have retained their normal shape and not to have become crenated or deformed. A few leucocytes were seen here and there. Ether dissolved the emulsified masses very slowly. After the red corpuseles had fallen to the bottom the fluid had a perfectly characteristic milky white appearance. On examination of the fluid the fatty matter could not be estimated, it was found to consist chiefly of stearine; there was no cholesterine. The albumen was not estimated. The child died about a fortnight later, and unfortunately there was no *post-mortem* examination. The author then proceeds to discuss the theories that have hitherto been put forward to explain these cases. He rejects the mechanical theory, as also that which would make all these cases to be secondary to purulent effusion, and believes that such effusions are chyliform *ab initio*. He then passes briefly in review some of the cases that have been previously recorded with the object of showing the importance that attaches to previous lesions of the serous membranes, and he infers from a study of them that every chyliform effusion, whether primary, as seems most probable to him, or secondary, is always of an inflammatory nature, at any rate so far as the pleura and peritonæum are concerned. He would prefer, therefore, to drop the term ascites, and call these cases chronic peritonitis with chyliform effusion. His general conclusions are thus summed up: (1) All cases of chyliform ascites known up to the present time, and followed by *post-mortem* examination, are cases of chronic peritonitis, tubercular, cancerous or simply fibrous. (2) The existence of chronic inflammatory lesions represents then one of the most constant elements in the origin of pleurisy or peritonitis with chyliform effusion. (3) The granulo-fatty retrogression of the effused inflammatory products is probably sufficient to account for the whole of the emulsified fat.

Chylous Deposit in the Abdomen.—A case of this kind is recorded in the *Boston Medical Journal*, August 14th. The patient, a male, aged 55, had always enjoyed good general health, and although his work at one time necessitated much heavy lifting, had never developed hernia. In January, 1877, he experienced sudden severe pain shooting from the lower part of the back forwards through the abdomen, accompanied with vomiting. Examination revealed a tumour giving the idea of the distended bladder, but the catheter withdrew only a few drops of limpid urine. Aspiration then brought away four pints of milky fluid, with entire relief to the patient and collapse of the tumour. Throughout the attack there was no febrile action and all the excreta, &c., were normal in character. The man resumed work in a day or two, as well as ever. Similar attacks were experienced in March and in October, 1877, and in July 1878, the pain lasting for about three days on each occasion, and the quantity of fluid continuing to diminish so that scarcely 20 ounces were withdrawn on the last aspiration. Throughout this period the patient was liable to a dull ache in the lumbar region easily converted into a sharp pain shooting forward towards the site of the tumour by long walks or much riding, by not at once satisfying the desire to defæcate, and sometimes when micturating. Vomiting of the same milky fluid occurred at intervals; and, when this was profuse, general weakness followed for a few days. The patient drank milk sparingly and disliked fat also. The fluid withdrawn by aspiration presented the general appearances of milk. It was odourless, alkaline, of a mawkish taste, sp. gr. 1018. After standing for a few hours it exhibited a soft and generally diffused coagulum. After a week's exposure to the air at a temperature of about 60° F. to 68° F., it showed no signs of decomposition. It was an emulsion of very finely divided fat, containing numerous variously-sized granular corpuscles, a little cholesterine, and a considerable amount of an albuminous substance precipitated by nitric acid, and resembling caseïn; no urea, or urinary pigment. The patient's last attack of pain and vomiting occurred in March, 1883, accompanied with a loose discharge of the same milky fluid from the bowels; since this date he has been well in every way. References are given to Professor Busey's work on the subject; and to cases reported by Georgevic, Langenbeck's *Archiv für Chir.*, vol. xii., p. 641; Weichselbaurn, Virchow's *Arch. f. Path. Anat.* v. lxiv., No. 2; Donald Monroe's Essay on Dropsy, Lond., 1865; Percival's Essays, Medical, London, vol. i., 1878; Quincke, *Deutsch. Arch. f. Klin. Med.*, vol. xvi, p. 121; *Jour. Amer. Med. Assoc.*, August 4th, 1883; and *New Eng. Jour. of Med. and Surg.* vol xii., p. 4.

Cystic Degeneration of the Kidney.—In the *Birmingham Medical Review* for September is a paper on this subject by Dr. Jones-Bateman. As regards adults he says that the disease is commoner in men, the most likely age being from 35 to 50. In the majority of recorded cases there was no history of pre-existing kidney disease. Both kidneys were always affected and the organs usually became large enough to be made out by palpation during life. Attacks of hæmaturia and albuminuria seem common, the urine is generally increased in quantity, pale and of low specific gravity; no casts can be found, and upon this he lays some stress as a point of diagnostic importance. After passing in review the different theories that have been hitherto propounded in regard to the pathology of the disease, he thus describes what he believes to be the sequence of events. The epithelium of the kidneys, under the influence of some irritant acting through the blood, acquires a tendency to proliferation. This proliferation spreads mainly in a circular manner; the central cells, becoming separated from their blood supply, undergo colloid degeneration; the cells at the periphery at the same time multiply, and so cause a gradual enlargement of what has by this time become a cyst, which then becomes invested with a fibrous layer by the irritation set up. Whether the process commences in the Malpighian capsules or in the convoluted tubes, or in both simultaneously, he regards as of no importance. He agrees therefore with Dr. Goodhart in regarding the cysts as adenomata.

REPORTS OF SOCIETIES.

THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, July 4th, 1884.

Dr. Thudichum, President, M.D., F.R.C.P., in the Chair.

This being the annual meeting, Dr. J. L. W. Thudichum delivered his address. "The society," he said, "may look back upon the session just accomplished with satisfaction and pride, and take from its success the assurance of a future in which its usefulness will increase and its importance develop. Our proceedings have not been tinged by the slightest want of harmony; on the contrary there has been a universal concurrence of goodwill on all sides, and I particularly have received from all officers, from the council, and the society at large, the most generous support, which has made my office a pleasure as well as an honour. In founding the Cavendish lecture the council laid down the principle that it should be dedicated, not only to medical but also to general philosophical objects. Perhaps it might be thought that a man, whose life was mainly devoted to the elucidation of facts, should not be made the patron of philosophical ideas; but this doubt will vanish when it is considered that such work as Cavendish performed is imperishable as well as lucriferous. True, Cavendish remained an adherent of the doctrine of phlogiston to his end, which occurred in 1810 after an active life of 79 years' duration. But stability was

the tenor of his mind, and when he studied an object he seized it with tenacity, and held it as long as it yielded any results by the most varied treatment. Unlike Priestley, his great contemporary, he was of a retiring disposition, and several of his discoveries were not published early enough to assure him his well earned priority. Many of the questions in chemistry, raised by Priestley's observation, Cavendish treated successfully, as regards the discovery of new facts, although the phlogiston theory did not allow him to develop their correct bearing. But what he found allowed at once the truth to be seen, says Kopp, as soon as it was considered by an enquirer like Lavoisier, whose view was no longer dimmed by that splendid hypothesis. This would not be the time for entering upon a consideration of the discoveries of Cavendish at any great length, but we may well cast a glance upon the most important of them. He confirmed Black as to the peculiarity of fixed air (carbonic acid), 1766. In the same year he showed that the combustible air from metals is also a specific body. He formed hydrogen by bringing zinc or iron in contact with dilute acids and found stoichiometric relations; equal weights of zinc with sufficiency of either of different acids, gave equal volumes of gas. Equal weights of different metals, zinc and iron, gave unequal volumes of gas; the relations of these to each other were estimated with remarkable accuracy. He found the burning air explosible when mixed with common air; he observed its lightness, a low specific gravity, as one-eleventh of common air (correctly one-fourteenth). This led to the consideration of the specific weights of gases as a means of their distinction from each other. He dried his gases and when measuring their volume observed pressure and temperature. He used mercury as an isolating liquid. He examined chemically water from a London well (1767) and discovered incidentally the solubility of lime carbonate by an excess of carbonic acid. In 1783 he published an analysis of common air. This was so accurate that he stated air to contain 20·8 volumes of dephlogisticated air (oxygen), actually 20·9. In 1781 he investigated the cause of the disappearance of dephlogisticate air; the phenomena of the oxydation of metals, the combustion of sulphur and phosphorus. When he exploded a mixture of combustibles with common air he obtained moisture; when he exploded two volumes of combustible with one volume of dephlogisticated air he also obtained moisture, and no air was left. Thus the composition of water was discovered. In 1785 he found the formation of nitrous and nitric acid by the agency of the electric spark. He retired from the active pursuit of chemistry after the new views had prevailed over the hypothesis of phlogiston. Let us hope that a future Cavendish lecturer may make his discoveries, and their experimental illustration his subject." The speaker then alluded to the influence of Darwin on facts and theories, and deduced as the main result that our endeavours must be to establish firm facts or data before constructing any far reaching hypotheses or theories. In this endeavour our future was secure of results which would advance our science.

Disputing a Doctor's Bill.—A curious case came before the County Court judge at Poole, last Monday, in which a medical man brought an action to recover 21*l.* for medical attendance. The defendant instead of paying the account accused the doctor of having poisoned the patient, who was suffering from Bright's disease, by giving her strong acid internally. The defendant's case was argued by his wife who, however, had no facts whatever wherewith to support the charge of poisoning, and the result was a verdict for the plaintiff for the full fee charged.

CAMBRIDGE MEDICAL SOCIETY.

Friday, August 8th, 1884.

J. B. Bradbury, M.D., in the Chair.

Two cases in which alarming symptoms occurred during the willing game.

Mr. Deighton related the following case. In November of 1883 he was summoned in urgent haste to see an undergraduate. He found him surrounded by his friends, who said they had been playing the willing game, and that he had been blindfolded and willed; soon afterwards he became tottery on his legs and went off into a state of convulsions. When seen he was tossing about on a sofa, with face slightly flushed, the movements of the arms and legs being most irregular, almost equally exaggerated on both sides. The muscles of face and neck were least affected, but he spoke in a jerky way, and on putting out his tongue it was protruded and withdrawn suddenly. He was quite conscious, clear and collected, and said that he tried to prevent himself tossing about, but could not help it. The pupils acted to light and were natural in size. He was ordered a bromide draught and told to go to bed. The next morning he was quite well again. He said he had spent a bad night, tossing about until 5 a.m. before he got to sleep, but there was now only an occasional twitching in the legs. He was of a nervous and excitable disposition, but never had fits or rheumatism or chorea. The heart sounds were normal. He was liable to excessive frequency of micturition on any excitement. The facts were against this being an attack of hysteria; the patient was a man, the movements of the body were so irregular and continuous and the patient's mind was throughout calm and collected, trying to control himself. On the other hand the attack had all the appearance of chorea, the short duration of the seizure being the only difficulty to that view. Mr. Deighton thought that if chorea was regarded as a functional affection in which a mere exaggeration of those muscular movements which are constantly taking place in the body occurred, and that a shock by removing the controlling power of the higher centres allowed the lower centres to have full play, then this case was in the same way capable of explanation.

Mr. Wherry said that the symptoms in his case, though not so definite as in Mr. Deighton's, were nevertheless sufficient to alarm the patient's friends. He was sent for one evening to see an undergraduate who had become suddenly ill during the willing game. It appeared that his friends had blind-folded him in the usual manner and were willing him to do some simple action, when all on a sudden he became weak in the knees and had to be helped to a seat. The handkerchief was removed at once, but the patient did not seem at all himself. He found him leaning against the mantel-shelf, looking fixedly downwards in a dogged and morose attitude; he answered questions in monosyllables in a hesitating way, not stammering, but with a jerk and without expression. Usually, his friends said, his manners were natural and polite. The pupils were dilated, with no action to light and his memory was a blank as to the details of the game. He was sent to bed, and when seen the next morning, he was better; his pupils normal and active to light, but his manner was still odd and his speech remarkable. When advised to leave Cambridge for a few days change, he refused rudely, but was afterwards persuaded by his friends and returned quite well. Mr. Wherry remarked upon the strange state induced by this willing game; the dogged and morose manner, slow replies, no action of the pupils to light, rapid recovery, and no recollection of the period during which he was being willed; altogether a condition which he was informed corresponded with the hypnotic or mesmeric state and one of which as medical men we should like to know more.

Case of Ulceration of Cæcum with Pyæmic Abscesses in the Liver.

Dr. Bradbury related the case of W. H., aged 30, an engine driver, who was admitted to the hospital on May 28th. He was quite well until April 25th, when he was attacked by pain in the left side of the abdomen. During

the first week of his illness he had two or three violent fits of shivering, and vomiting had been present from the first and continued until about a week ago, and he had also had some diarrhœa. He had lost much flesh, and was troubled with a slight cough. On admission he was much emaciated, skin hot; tongue dry and brown; pulse 84; temperature 101·8°. Abdomen lax, tender on pressure especially in left iliac fossa; no spots. A patch of dulness over the base of the left lung behind, with deficient breathing and fremitus. Liver dulness normal. Splenic dulness from the seventh to the eleventh rib, extending back nearly to the angle of the scapula. The urine contained no albumen. On June 2nd, he had a rigor, with pain in the abdomen and diarrhœa, and profuse sweating afterwards. The rigors and sweats were repeated for several days and the temperature chart showed great diurnal variations, on one occasion dropping from 106·6° to 96·4° in less than twelve hours. The physical signs remained about the same, except that on June 18th the liver dulness extended from about the fourth rib to a quarter of a inch below the edge of the ribs, and on the 23rd to two inches below the ribs, and at one time slight jaundice was noticed. The sweats and rigors continued and the patient became very prostrate. On June 25th the abdomen was swollen and very tender, and peritonæal friction was perceptible over the upper part. He remained in much the same condition until July 9, when he was suddenly attacked with severe pain near the right nipple, the pain recurring several times with dyspnœa, and friction sound was audible. July 10 the physical signs showed a large effusion into the right pleural cavity, with tenderness over the liver, and swelling of the legs. Death took place on July 16th. The *post-mortem* showed the right chest to be full of pus, of yellowish colour and very offensive. A communication was found through an opening in the diaphragm with an abscess in the liver. The liver contained many abscesses of various sizes, the largest about the size of a lemon, which had burst through the diaphragm. In the intestine close to the junction of the vermiform appendix and cæcum was an ulcer, the size of a split pea, surrounded by congested mucous membrane. The intestinal wall was not perforated. The cause of the ulceration was not apparent and the appendix was natural. The cæcum was bound down in the right iliac fossa by adhesions of old date. The hæmorrhoidal veins, and the inferior mesenteric above were filled with breaking down clot and pus. There was no evidence of any disease in the rectum or small intestines. The spleen weighed thirteen and a half ounces. Dr. Bradbury in his remarks alluded to the obscurity of the symptoms in the early history of the case and the difficulty in diagnosis; the peculiarity of the pain complained of in the left side of the abdomen, and the comparatively small size of the ulcer in the bowel, the cause of the fatal pyæmia. He showed the liver and the ulcer in the cæcum.

Great Enlargement of Prostate.

Mr. Carver showed this specimen. It was removed from a gentleman, aged 67, who only suffered from prostatic symptoms for three or four years before death. He had consulted several medical men on account of diabetes from which he suffered in addition. The patient first consulted him in 1882 when he was unable to empty his bladder, and was troubled with frequent micturition. A catheter was used three times a day and the diabetes treated by dieting. In 1883 an abscess formed in the ischio-rectal fossa, from which he suffered much pain. Early in 1884 he became much emaciated, and in May an incision was made and a large amount of fœtid pus escaped, but he gradually sank. The prostate was larger than any in the museum, the enlargement being chiefly of the lateral lobes.

Dr. Koch it was reported some days ago had received a call to the University of Leipsic, as successor to the late Professor Cohnheim. The *Cologne Gazette* is glad to be able to state that Dr. Koch has declined this honourable call and resolved to stay in Berlin. It is probable that he will soon be appointed Professor of Hygiene in Berlin University.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

Sir,—The evidence in regard to over-pressure is so conflicting, that the time seems opportune for those whose daily business is with the sick children of the poor to bring their testimony into comparison with that of a widely circulated Report, made for a special purpose, and which its author describes as being necessarily fragmentary and limited in extent.

Dr. Crichton Browne's conclusions have been charged with exaggeration; whether truly or not I will enquire in a moment. Certainly exaggeration is easy; for the children of the poor here in London are exposed to so many noxious influences in their food, their dwellings and the uneven tenour of their home life, that we need great caution in attributing such symptoms as headache, sleeplessness or mental distress to the injurious effect of school. It is only upon the most direct evidence that these common complaints of children, and especially of London children, are to be put to the charge of what is called over-pressure.

And assuredly such direct evidence is not wanting. Instances of nervous injury from over schooling are, I am persuaded, far from infrequent, and they are all of one pattern, girls suffering in far larger proportion than boys. Let the initial cause be hard lessons, or lessons which, without being hard, are to be learnt at home, where "home," as a matter of fact, is not a place suitable for study, but is put to far other uses; or let it be the fear of punishment or the excitement of competition in school examinations, the effect is broken and uneasy sleep disturbed by visions of sums and spelling, loss of spirit and appetite, and presently general failure of health. And it is very curious, as well as very pitiable, to notice how symptoms like these, once started, are kept going, so to speak, of themselves. Children so affected are seldom brought to hospital until a long course of suffering has developed some complaint or other to which a name can be attached. But once overmastered in this way, all hope of recovery is taken away until the child's true condition is recognised, for there is daily failure and disgrace along with daily increasing inability to perform the allotted task. This is strikingly shown in the case of chorea, which of all formulated diseases is perhaps the one which may with the greatest certainty be attributed to school pressure. The muscular disobedience which is the essential feature of this affection is for a while put down to carelessness or ill-temper, and gets treated accordingly, while the child, half alarmed already at finding its limbs in such strange rebellion, has to endure rebuke and penalty which, being wholly undeserved, add to the rest of the suffering that which children feel very keenly, the sense of injustice. I have seen scores of such cases.

But when this much has been said, I believe that almost all is said in reference to the evil effects of our present system of school teaching. Let it be remembered that the affections we are speaking of, serious and even cruel as they are, are not, or at least are very seldom, permanently injurious. I will take upon me to affirm, from personal observation during many years at the Hospital for Sick Children and elsewhere, that those ailments which are most indubitably associated with over-schooling, sleeplessness, chorea, some forms of headache and the like, are as a general rule recovered from com-

pletely sooner or later when their exciting cause is removed. Dr. Crichton Browne would adduce the increased prevalence of diabetes, kidney disease and rheumatism, diseases which, as he says, are sometimes of nervous origin, as proof to the contrary. It must be answered, however, that of the nervous relations of rheumatism we know too little as yet to serve the purpose of any argument of this kind. As regards the other two affections the interval between school troubles and the earliest symptoms of diabetes or renal disease, speaking generally, is too wide to justify such an inference. It is indeed matter of ancient clinical knowledge that the mental causes provocative of diabetes (and more recent observation would include some kidney affections as well) are not the trials of childhood, but, as was said two hundred years ago, "sadness and long sorrow," the disappointments, shocks and bereavements of later life, forms of mental suffering to which little children are happily strangers.

Again I would demur to the statement that acute hydrocephalus is a common result of over-schooling. It may be so; but from the nature of the case the fact is exceedingly difficult of proof. Let it be considered that acute hydrocephalus is almost always of tubercular origin; that its favourite subjects are recognisable by feature and temperament; that the lives of such children are always in jeopardy, protect them as we will; and that large numbers of them die before the schooling period is reached. It must always, I say, be hazardous to assert positively of children such as these, bright, excitable and fond of books as they are, that death is caused or even accelerated by brain fatigue. How easily may the restlessness and delirium which are in fact the signs that the disease has commenced be misconstrued and made to appear as its antecedents and direct provocatives. In common with my fellows I have seen a very large number of children die of acute hydrocephalus, but I can hardly think of one where it could be affirmed that school work had a notable share in the fatal result. Not the less, of course, ought delicate children of this sort to be carefully guarded against the possible dangers of over-pressure. I only wish to point out that the circumstances of the case so arrange themselves that to the half-informed observer almost every child dying of acute hydrocephalus during its school time may seem to die a victim to over-pressure. We have only to raise a cry of that sort, and the poor, nay, both rich and poor, would readily adopt it in explanation of a disease which to them is so mysterious and unexpected, and which selects the most intelligent and the most studious of their children.

There are, indeed, two methods of investigating this subject and determining the actual results of over-pressure. One is to take a series of observations as to the present condition of a number of school children at a single sitting, to repeat this operation at several schools, to form certain conclusions thereupon, and to supplement these by inferences drawn from the Registrar-General's reports. The other is to observe school children continuously over a period of years; to note how and why they get ill, how long and in what manner they suffer, how they recover and how they die. Both methods have their advantages. But if in the end the two results should not be found to tally, I should certainly be disposed to prefer the latter.

Yet while in my belief the ill-effects of too much schooling are, as a rule, neither fatal nor permanent, I would not for a moment seek to minimise either the prevalence or the cruelty of over-pressure. Dr. Crichton Browne has done good work in calling attention to it. What remains is to point out to teachers and parents the particular signs of injurious pressure, and to educate them in a more intelligent observation of the natural characteristics and the needs of childhood. My object in writing, however, is not to discuss remedies, but to venture my opinion as to the extent and nature of the evils complained of, and I will add no more to a letter already too long.

I am, Sir, yours, &c.,

OCTAVIUS STURGES,
Physician to the Hospital for
London, 23rd September, 1884. Sick Children.

[To the Editor of the Medical Times.]

SIR,—From a considerable experience in hospital practice among children, I am inclined to the opinion that an appreciable amount of nervous disorder is probably to be attributed to what has been called "over-pressure" at school. This notion has forced itself upon me in the course of my work. I have never set myself to collect evidence for the purpose either of illustrating the effect of school-life on health, or of disproving allegations as to its harmful results. The few remarks, therefore, that I have to offer you in answer to your letter, will be of no value as demonstrative evidence on the point at issue, the important question of the *proportionate* number of children affected being left out of consideration; but they will, I think, be at the same time free from the taint of professional bias. My tendency at the outset of my work among children was to discredit the complaints of parents regarding the over-work imposed upon their children by the Board schools; and my sympathies are strongly with the principle of compulsory education. I have often refused to fill up the certificates necessary for absence from school which were brought to me by parents for the sake, often very obviously, of having their children at home; but equally and perhaps more often, especially in recent years, have I caused the parents against their will to procure such certificates for immediate signature, on the conviction that a temporary cessation from work was absolutely requisite for the children concerned.

That it is antecedently probable that developing children would suffer in their nervous system from a given degree of brain-work and physical restraint, more than the fully-formed adult, may be regarded as beyond doubt. This point, however, though not requiring emphasis here, is apparently quite ignored by many professed "educationists," and the positive evidence brought to bear upon it is consequently regarded in the same suspicious light as though it were offered on behalf of a paradox.

The chief expressions of nervous disorder that I have observed in children, and have referred directly to their school-life are, mainly, headache, inability to sleep well, and an excitability, often accompanied by a considerable degree of uncontrolled muscular movement, which, though it may not commonly pass on to obvious "chorea," is but hardly to be distinguished from the warnings and remnants of that affection.

With respect to *headache*, I have seen a large number of cases where I was able, after careful enquiry, to exclude other causes than school-work, which ceased very soon after an intermission of school attendances; the "*propter hoc*" in this observation being rendered all the more plausible by the fact that the enquiry was, as a rule, unvitiated by the administration of drugs. In such cases as this I have frequently been asked by the parents to permit their children to continue work till after the examination they were so anxious for them to pass. The headaches were almost always frontal.

Disturbed sleep I believe to be a not infrequent accompaniment of these headaches, occurring, however, also alone. It is often attended by "somniloquence," and not altogether rarely by somnambulism. My strong impression is that the patients in whom this latter symptom shows itself are mostly predisposed to nervous disorder, as shown by family history. Prolonged inability, too, to go to sleep at all for some hours after going to bed is no uncommon complaint.

On the subject of uncontrolled *muscular movements* I can say that I have observed these phenomena, both with and without one or more of the symptoms above referred to, in many cases where there was good reason to believe in the existence of over-pressure at school; and further, that I am well assured that several cases of pronounced chorea that I have seen were distinctly due, as to their main exciting cause, to such over-pressure, especially in connection with examinations.

As an illustration of some of the affections to which I have alluded, I may give short notes of two new cases which came under my notice not long ago in one day in the ordinary course of out-patient work.

Case I.—Phœbe A., æt. 12. Brought because of frontal headache coming on every night about 8 o'clock. Loss of appetite, and sickness after solid food. Has not taken any solid food for a fortnight. These symptoms have continued for several months, but completely disappeared during a recent month's holiday. The last four weeks, since returning to school, they have been worse than ever before. An examination has just been passed. No other discoverable cause for headache. Child looks pale and worried, her eyes filling with tears on being spoken to. Has been diligent at her school, which is not a Board school.

Case II.—Henry L., æt. 12. For the last year has been subject to headache, chiefly on the left side of forehead, but sometimes all over it. Headache comes on only in the evening, and lately has occurred every evening. The boy has been working for an examination. Has no headaches in the holidays. He gets on well at school, and is now in the fifth standard at a Board school, five years since entry in the lowest. The boy has a listless look, and is pale. No other cause of headache discoverable or any fact remarkable in his history other than that his father is subject to headaches.

The question as to the probability of permanent structural lesions of the brain being due to over-work is one which, though interesting, should in my opinion be passed over for the purpose of the present enquiry, in common with all discussion of very doubtful and remote results. It would appear, now, to be enough were even such mere impressions as those I have alluded to, which coincide with the opinion of Dr. Crichton Browne and probably of many others, either fully corroborated or satisfactorily disposed of by disproof. If it be indeed true that our national system of education is so false to its name as to *hinder* the proper mental development of but twenty per cent. of its subjects, surely an urgent case is made out for investigation in spite of our being unable to prove that any are actually killed by it.

I am, Sir, yours, &c.,
H. B. DONKIN.
Physician to the East London Hospital for Children.

[To the Editor of the Medical Times.]

Sir,—In his report to the Education Department, Dr. Crichton Browne expresses some surprise and disappointment that he had not met with any cases of chorea in the course of his enquiry into the existence or otherwise of overpressure in the Board Schools, and he refers to the general belief that chorea is one of the diseases which is liable, or thought to be liable, to be set up by overwork at school.

It occurred to me that I might be able to furnish some interesting and possibly useful information on this subject by tabulating the notes that I have taken of cases coming under my own observation. They do not, however, by any means possess the value that I had hoped they would, and for two reasons mainly. In the first place in the vast majority of my cases I have no note of any enquiry as to school work at all, and in the second place in those instances where there is good reason to refer the attack of chorea to overwork at school there is no evidence to show that the school in question was a Board School. In this respect perhaps my figures gain in value as being clearly not the result of enquiry conducted with a preconceived bias. From the standpoint of the medical observer, however, it matters not what the name of the school may be; it is sufficient for him that a child is suffering from an undue demand upon his intellectual capabilities.

Having said thus much by way of preface, I have only one further remark to make and that is that my cases were all observed at the Hospital for Sick Children, Great Ormond Street, during the years 1879 to 1883 inclusive, with perhaps the exception of a very few in the year 1878.

In all, I have notes of 136 cases; in 111 of these (91 girls and 20 boys) there is no statement as to the existence or otherwise of overwork. Of 9 children (6 girls and 3 boys) it is definitely stated that the attack was not due to overwork in school, in some of these for the very excellent reason that the child was too young to have gone to school. In the remaining 16, there seemed to be good reason to connect the attack with the lessons. In this category there were 12 girls and 4 boys. The following are some of the notes in reference to the point in question.

F., aged 8, "was working very hard at school for her examination when this came on." F., aged 11, "used to have more sums than she could manage, had been 'stood up' in school for not getting them right." F., aged 8, "was working up for examination when this came on." M., aged 10, "is very studious, was working up for a prize." M., aged 10, "supposed to have been working unusually hard for examination." M., aged 7, "no cause known unless the excitement of preparing for examination." I need not take up your valuable space by quoting from the other cases, suffice it to say that the notes in regard to them are very similar. Thus, assuming that in all my cases in which the notes are silent on the point, which I take it is assuming a great deal, assuming that in these cases overwork at school had no share in the production of the disorder, the fact yet remains that in 11 per cent. there was good reason to believe that overwork at school was the exciting cause. If I were asked for an explanation of the fact that Dr. Browne did not meet with any cases I should be inclined to attribute it to this, that as a rule chorea is at an early stage recognised by the parents, inasmuch as the children are very awkward and drop things, and the disease is then discovered either at a hospital or by some wise neighbour, who is only too ready to volunteer a diagnosis.

I have only dealt with the subject of chorea, because that is the only one in reference to which I possess any

facts, but headache is an infinitely more common sequel or accompaniment of examination fever than chorea.

I am, Sir, yours, &c.,
JOHN ABERCROMBIE,
Assistant Physician to the Hospital for Sick Children,
September 23rd, 1884. Great Ormond Street.

THE MAKING OF BOOKS.

[To the Editor of the Medical Times.]

SIR,—During the last fortnight I have been somewhat pestered by a firm of publishers who hail from over the Atlantic and have taken lodgment in London, to contribute a volume to an "International Medical Library." First there came to me, as doubtless to others, a circular, in which commercial enterprise was concealed under an appeal to a presumed sense of vanity as one of the "best authors and most successful teachers," giving a list of no fewer than 67 suggested topics from which I might choose one or more as the theme of an *original* work; secondly, there followed an urgent request that I would lose no time in answering their appeal; and lastly, comes now another circular, making certain announcements of forthcoming works, of successful baiting by the firm, and proposing some dozen other subjects upon which an actual "treatise" is deemed suitable for my pen.

Now this sort of thing may be all very well from the publisher's point of view, and if common report be true that authors in this country have hitherto made next to nothing by their books, it may be a taking prospect for future writers to receive ten farthings for each and every copy of their original works, but what can be said of it in the interest of a reading, enquiring and long-suffering profession? Can this mercantile venture—for it is nothing less, the project of a house of business to establish a footing in London, of which as such it is not my desire to complain—have any other result than to induce the needless making of books, and the flooding of our already overstocked medical market with yet more works on subjects of which the ground is in many instances already well, and more than well, occupied? Is it not one of the banes of our profession to-day that medical books are so often written before the requisite experience has been gained, authors forgetting that the writing of a book ought to be a matter of serious, of well-nigh solemn, concern, to be undertaken only after experience has given that sanction which it alone can give a man to instruct his fellow men? Cast an eye down the weekly columns of advertisements of our medical books, and no one who has the power of observation can fail to see how few are the authors who can have had more than a very minimum of experience of the subjects of their original works, how few are the books which have a more worthy aim than the advertising of those who made them! A further development of this evil is simply appalling. I see in it no germ of good, and I wish to protest against a scheme which encourages the very worst form of making of books, which, by attractive promises of advertisement and remuneration, compels those to authorship who have no warranty to write or teach, and thereby does the whole profession a grievous harm.

I am, Sir, yours &c.,
M.A.

September 22nd, 1884.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received a Certificate to Practise, on Thursday, September 18th, 1884:—

Frank Greasley Armson, Yoxall, Burton-on-Trent; William James Townsend Barker, 106, Redland Road, Clifton; Charles Basham d'Eyncourt Chamberlain, University College Hospital; Isaiah Henry Jones, 53, Maida Vale, W.; George Augustus Garry Simpson, 50, Maryland Road, Sutherland Gardens, W.

UNIVERSITY OF ABERDEEN.—The University Court has appointed the following six gentlemen to be extra-professorial examiners in Medicine for next year, viz.:—Dr. John Alexander, Glasgow; Dr. A. Campbell, Dundee; Dr. Alfred H. Carter, Birmingham; Dr. J. A. McWilliam, London; Mr. Frederick Treves, London; Dr. Francis Warner, London.

NAVAL MEDICAL DEPARTMENT.—The following appointments were announced on September 18th:—Staff Surgeon—Bernard Renshaw, to the *Boscawen*. Surgeons—Herbert G. Marsh, to the *Alexandra*, additional; John Brunt, to the Royal Marine Artillery Division at Eastney; and the following appointments on September 19th:—Surgeon—George R. D. Charleton, to the *Lily*. Mr. John J. O'Doherty has been appointed Surgeon and Agent at Cushendun and Cushendall.

ARMY MEDICAL DEPARTMENT.—Surgeon Major J. G. Altera is granted retired pay, with the honorary rank of Brigade Surgeon. Brigade Surgeon John George Faught to be Deputy Surgeon-General, *vice* Francis Holton, M.D., retired upon temporary half-pay. Surgeon Patrick Joseph Gallwey, M.D., has resigned his commission.

VACCINATION.—Dr. Guy, Public Vaccinator, Norwich, has received from the Local Government Board a grant of 111*l.* 17*s.*

GLASGOW ROYAL INFIRMARY.—The admission of upwards of 30 persons suffering from typhoid fever into the Royal Infirmary at Glasgow has been carried out in spite of a strong remonstrance from the resident assistants, and qualified medical practitioners. On the 9th instant, they addressed the following letter to the managers:—"Gentlemen,—We, the undersigned resident assistants and qualified medical practitioners, beg to call the attention of the managers to the following question, and wish to be advised thereon:—In the rules and regulations, page 22, rule 1, it is stated that 'no person shall be admitted as a patient into the Infirmary without examination by the medical attendants, to ascertain that the case is a proper one. Under no circumstances shall a person suffering from any infectious disease be admitted. The assistants will examine and admit the patients, if found proper for admission; but if an assistant should be of opinion that any applicant ought not to be admitted, he shall, before refusing admission, have his opinion confirmed by that of another assistant, and transmit to the superintendent, signed by himself and such other assistant, the reasons why admission was refused.' Referring to this rule, we beg to inform you that a patient applied for admission into the infirmary on 5th instant, and on examination by the acting assistant for the day, was found suffering from an infectious disease (enteric fever). This diagnosis was confirmed by another assistant, and as a consequence the case was refused, and the reason for refusal was transmitted to the superintendent. The superintendent refused to recognise the reason as a sufficient one, and passed the case into the house. The assistants referred to were informed that by refusing such cases they were 'open to dismissal.' We therefore ask the advice of the committee regarding how we should act when persons suffering from enteric fever should apply for admission into the house. It seems to us that the rule as above stated is quite plain on the point. The Sanitary Authorities of the city are always willing to admit such persons into their Fever Hospital at Belvidere, an hospital specially fitted up for the treatment of infectious disease. Further, by admitting cases of enteric fever, the resources of the hospital are spent in the treatment of cases which would with more propriety be treated elsewhere, and other cases are deprived of admission into the house which are proper for receiving into a general hospital. It may be here mentioned that a case considered suitable for admission by the receiving assistant, and passed into the house on the 5th instant, was refused by order of the superintendent, though there were vacant beds, these being retained specially for the admission of cases of enteric fever. We may state that there are over 20 cases of enteric, or supposed enteric, fever in the house.—We are, &c., J. J. Murray, M.B., C.M.; John Orr, M.B., C.M.; Richard H. Quine, L.R.C.P.E., S.G.; Ben. Blaine, M.B.,

C.M.; John Brown, M.B., C.M.; Thomas Howard, M.B., C.M.; T. Kennedy Dalziel, M.B., C.M.; R. Rankin Hunter, M.B., M.R.C.S.; David W. Torrance, M.B., C.M.; Alexander Peacock, M.B., C.M." We understand that the result of several other communications between the doctors, the superintendent, and Lord Dean of Guild M'Ewen is a curt intimation from the secretary to the Royal Infirmary that if the medical practitioners are not satisfied they can—resign!

Dundee Water Supply. — Suspicion having been aroused as to the quality of the Dundee water supply, samples of both the waters supplied to the town were forwarded to Dr. Tidy, London, for analysis. He states in his report that Monikie water contained 6·76 grains, and Lintrathen water 4·02 grains of solid matter per gallon. This matter consisted of small quantities of sulphates and carbonates of lime and magnesia, with common salt and organic matter. These constituents are harmless, and so far as mineral matter is concerned, its presence in the water is beneficial to the animal economy. He is of opinion that both waters are of good quality. Speaking as a chemist, he considers the waters of good quality, and as a medical man, that they are perfectly wholesome.

Typhoid Fever Epidemic at Kidderminster.—An official inquiry was held at Kidderminster on Monday by Dr. Parsons, of the Local Government Board, into the typhoid fever epidemic now prevailing, and which has attacked from 400 to 500 persons. Dr. Parsons met the sanitary committee of the Town Council in private, and afterwards the medical men of the town were invited to a conference. During the day Dr. Parsons three times visited the lower pumping station, from which the main part of the water supply is derived. The well of water, which has been pumped night and day, is situated in the area of the sewage pumping works, within 70 or 80 feet from where the whole sewage of the borough is pumped. The well is to be no longer used, but water will be taken direct from a bore-hole till an increased supply is otherwise provided. One doctor states that the majority of his patients were teetotallers, thereby suggesting that the water is the great cause of the outbreak. There are, however, defects in sewer ventilation and other matters requiring attention, and it is stated a heavy outlay will be necessary.

Treatment of Diarrhœa.—Ordinary clear vinegar is recommended as a valuable remedy for diarrhœa, given in doses of ʒij for an adult. Not long since it was extolled as an efficient hæmostatic in cases of post partum hæmorrhage—its virtue having been accidentally discovered owing to the effects which followed the administration of a wine-glassful given in mistake for brandy.

Recovery from Bite of a Cobra.—It is not often that a person who has been bitten by a cobra lives to tell the tale. The *Pioneer*, however, gives such an instance. Very recently, it appears that an officer of the 1st Goorkhas, while staying at Kangra, was bitten by a cobra in the hand. With great fortitude Mr. R. seized his gun and blew off the finger that had been bitten. Nevertheless, when medical aid arrived, he was almost insensible; and it was only by keeping him walking about all night and administering large doses of brandy and ammonia that he he was pulled through. Mr. R. has now been sent back to Dharmsala, where, it is to be hoped, that he will speedily recover.

French Population in Canada. — However much non-procreative ideas may prevail in France, that they have gained no access to the French inhabitants of Canada, where an "enormous fertility" prevails, is evident from some figures published by the *Mineral*, of Montreal. "The French population is constantly increasing in the province of Quebec, while the English population diminishes in a sensible proportion. The French were only 3,000 in number in 1653' and 60,000 in 1763. Since that date the emigration from France has ceased, and we have even to regret the departure of a great number of our compatriots who have reckoned upon the advantages offered by the United States. Notwithstanding these advantages, there are at present 1,298,929 French inhabitants distributed in the Canadian provinces as follows:—Quebec, 1,073,820; Ontario, 102,743; New Brunswick, 56,635; New Scotland, 41,219; Prince Edward's Island, 10,751; Manitoba, 9,919; Territories, 2,896; English Columbia, 916.—Total, 1,298,929.

Vital Statistics of Brussels During 1883.—On 1st January, 1883, the population amounted to 166,351 inhabitants, viz., 77,387 males and 88,964 females, the difference in favour of the latter being 11,577. During 1883 there were 5,546 *births* registered, viz., 2,783 males (2,082 legitimate and 701 illegitimate) and 2,763 females (2,061 legitimate and 702 illegitimate). Of the total births, therefore, 4,143 (74·40) were legitimate and 1,403 (25·30) illegitimate. There occurred 66 twin-births or 1·19 per cent., 34 being males and 32 females. During the year 1,470 *marriages* were celebrated, and 49 divorces granted, 1,236 of the marriages having taken place between celibates, 111 between widowed and celibates, and 45 between widows and widowers. The *deaths* amounted to 5,407 (2,873 males and 2,534 females). There were also 334 infants born dead (191 males and 143 females). The 5,407 deaths were an excess of 55 of the decennial mean (1871–80), 3,370 of them occurring at home and 2,037 in hospitals. Of this mortality the children and celibates and the widowed furnished nearly two-thirds, 3,875, viz., children and celibates 3,035 and the widowed 840, while the deaths of the married amounted to 1,519, and of the divorced to 13. To sum up, the daily mean of the births was about 15·2, of the marriages 4·0, of the deaths 14·8, and of the born dead 1. The excess of births over deaths was 139. The annual rate of births per 1,000 inhabitants was 27·65 and of deaths 26·4, a difference of 1·25. The number of violent deaths was 128, viz., 3 by homicide, 75 by accident, and 50 by suicide. Of these last 41 occurred in males and 9 in females. In 18, hanging was resorted to, in 11 drowning, in 13 firearms or cutting instruments, in 4 poison, and in 4 precipitation.

APPOINTMENTS.

Body, Henry Marten, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Tedburn St. Mary District, St. Thomas' Union, *vice* Dr. Charles Fenwick, resigned.

Bradshaw, T. R., M.D., M.R.C.S.—Assistant House Surgeon to the Liverpool Northern Hospital.

Braine, G. M. P., M.R.C.S. Eng., L.R.C.P. Lond.—Second Assistant Medical Officer of the Worcester County and City Lunatic Asylum, *vice* J. H. Douty, M.R.C.S. Eng., L.S.A. Lond.

Bull, Coulson, F.R.C.S., M.B., L.R.C.P.—Resident Pathologist and Registrar to the General Hospital, Birmingham.

Cooper, A., F.R.C.S.—Consulting Surgeon, West London Hospital.

Dean, Francis, M.R.C.S. and L.S.A., Medical Officer to the Workhouse, Northleach Union, *vice* Mr. H. G. Webb, resigned.

Douty, J. H., M.R.C.S. Eng., L.S.A. Lond.—Senior Assistant Medical Officer and Deputy Superintendent of the Worcester County and City Lunatic Asylum, *vice* R. Atkinson, F.R.C.S. Eng., resigned.

Furse, Edwin, M.R.C.S. Eng., L.S.A., Lond., Medical Officer to the Workhouse, South Molton Union, *vice* Mr. J. Flexman, resigned.

Ranson, W. E., M.R.C.S. — House Surgeon to the Staffordshire General Infirmary, *vice* F. Marsh, F.R.C.S. resigned.

Robins, George Norman, M.R.C.S. Eng., and L.R.C.P. Edin., Medical Officer to the Rippingale District, Bowin Union, *vice* Mr. G. N. Adams, resigned.

VACANCIES.

Bournemouth Cottage Hospital and Dispensary.—Resident Medical Officer and Secretary. Salary £120 per annum (with an increase of £20 the second year), with rooms, coals, gas and attendance. Candidates must possess both a medical and surgical qualification. Applications with testimonials to be sent in on or before September 29th.

Brighton, Hove and Sussex Throat and Ear Dispensary, 23, Queen's Road, Brighton. — Honorary Surgeon. Applications, accompanied by copies of testimonials, to be sent to the Honorary Secretary, Mr. C. Challis, 23, Queen's Road, Brighton, on or before September 30th.

Huddersfield Union.—Medical Officer for the Honley District, in succession to Mr. Andrew Daly, resigned. Area, 2,435 acres. Population, 5,070. Salary, £16 per annum.

Manchester Royal Infirmary.—Resident Medical Officer. (*For particulars see Advertisement.*)

National Dental Hospital, 149, Great Portland Street, W.— House Surgeon. Salary, £50 per annum. Candidates must be Licentiates of Dental Surgery. Applications, with testimonials, to be sent in on or before September 29th.

St. Peter's Hospital for Stone and Urinary Diseases, etc., Henrietta Street, Covent Garden. — House Surgeon. The Appointment will be for six months. Honorarium, 25 guineas, with board, lodging, and washing. Candidates must be M.R.C.S., and have held the position of House Surgeon at a Public Institution. Applications with testimonials to be sent to the Secretary, on or before September 30th.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates must be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28.

TYNEMOUTH UNION.—Medical Officer to the Wallsend District, in succession to Mr. James Aitchison, deceased. Area, 2,728 acres. Population, 13,756. Salary, £40 per annum.

UNIVERSITY COLLEGE, LONDON.—The office of Surgical Registrar in the University College Hospital will shortly be vacant. Applications and Testimonials to the Secretary, Talfourd Ely, M.A., on or before September 30th.

DEATHS.

KEMPTON, J. W., M.R.C.S., L.S.A., at 5, Cambridge Terrace, Burnt Ash Lane, Lee, on September 14th, in his 76th year.

NOTES, QUERIES, AND REPLIES.

COMMUNICATIONS RECEIVED—

Dr. D. W. FINLAY, Helensburgh; Dr. OCTAVIUS STURGES, London; Dr. FELIX SEMON, London; Dr. BRAIDWOOD, Birkenhead; Messrs. J. BALE & SON, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Mr. H. WOLLERS, London; Dr. SAWYER, Birmingham; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Messrs. P. BLAKISTON, SON, & Co., Philadelphia; Dr. ROBERT LEE, London; Dr. DICKINSON, London; Mr. A. J. HARVEY, London; Dr. THOMPSON, Tasmania; THE SECRETARY OF THE MATER MISERICORDIÆ HOSPITAL, Dublin; Dr. GEE, London; THE HON. SECRETARY OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY, London; Mr. LAKEMAN, London; M. A.; Mr. E. MARRIOTT COOKE, Powick; THE DEAN OF THE MEDICAL FACULTY, KING'S COLLEGE, London; E. H. SCHROEDER, Berlin; Mr. R. WALKER, Aberdeen; THE PRESIDENT OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, London; THE REGISTRAR-GENERAL, London; THE REGISTRAR-GENERAL, Edinburgh; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; Mr. L. RUEGG, Sherborne; Mr. DAVIDGE, London; Mr. W. YOUNG, London; THE BEDELL OF THE ROYAL COLLEGE OF PHYSICIANS, London; Dr. GUY, Norwich; THE EDITOR OF THE BOURNEMOUTH OBSERVER, Bournemouth.

BOOKS RECEIVED—

Twenty-eighth Annual Congress of the National Association for the Promotion of Social Science.—Proceedings of the Philadelphia County Medical Society.—On the Causes and Mechanism of the Cardiac Impulse, by James Barr, M.D.—Remarks on the Pathology and Treatment of Tubal Nephritis, by James Barr, M.D., L.R.C.S.—Reduplication of the Cardiac Sounds, by James Barr, M.D., L.R.C.S.—Friendly Societies' Provident Medical Institutes and their Medical Officers, by J. Mounsell, M.D.—Che Cosa si Può Fare in Tempo di Colera, C. Tommasi-Crudeli.—Use and Abuse of Pessaries, by Geo. G. Bantock, M.D.—On the Application of Dental Science in the Detection of Crime, by Robt. Reid, L.D.S.—Report on the Health of Kensington, from Aug. 9th to Sept. 6th—The Natural Mineral Waters of Pedras Salgadas, in Portugal.—On Sclerosis of the Spinal Cord, by Julius Althaus, M.D., M.R.C.P.—Tumours of the Ovary, &c., by Alban H. G. Doran, F.R.C.S.—On Some Important Points connected with the Surgery of the Urinary Organs, by Sir Henry Thompson, F.R.C.S., M.B. Lond.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Journal of Cutaneous and Venereal Diseases—L'Hygiène Pratique—Students' Journal and Hospital Gazette—The Liverpool Daily Post, September 18—The Detroit Lancet—The Therapeutic Gazette—Revista de Medicina—Journal of the Scottish Meteorological Society.

APPOINTMENTS FOR THE WEEK.

Friday, September 26 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

INTERNATIONAL HEALTH EXHIBITION (HYGIENIC LABORATORY), 4 p.m.—Mr. Charles E. Cassal, F.I.C., F.C.S., on "Bad Food."

Saturday, September 27.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, September 29.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, September 30.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, October 1.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, October 2.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, October 3.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8 p.m.—President's (Mr. F. Lawrance) Address, and "A Case of Forcign Body impacted in the Foot;" Mr. Bernard Pitts, "Foreign Body in the Air Passages, followed by Abscess of the Lung—Recovery;" Mr. A. Litton Forbes, "Pharyngeal Deafness, its Pathology and Treatment, with analysis of cases;" Mr. Gunton Alderton, for Mr. M. Thompson, "Case of Retention relieved by Railroad Catheter—Fever—Death in three days."

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MEDICAL TIMES

AND GAZETTE.

No. 1788. LONDON, SATURDAY, OCTOBER 4, 1884.

Contents.

INAUGURAL ADDRESS DELIVERED IN ST. THOMAS'S HOSPITAL,

By Sir J. RISDON BENNETT, M.D., LL.D.,
Fellow of the Royal Society.

Gentlemen,—It was, I believe, a saying of Dr. Johnson that "to judge rightly of the present we must oppose it to the past." Certainly, to judge rightly either of St. Thomas's Hospital and its School, or of medical science of the present day, it would be needful to look back, I will not say to bygone centuries, but at all events to the beginning of the present century. And to one standing in the position of him who has the honour of addressing you on this occasion, there are many temptations to take a retrospective view and indulge in past memories. Nor should I despair of making such a retrospect interesting to many, perhaps to most, of my auditors. The history of such an institution as this cannot be devoid of either interest or instruction, not merely to members of our profession, but to all thoughtful men, to all true lovers of their country and mankind. For what would be the character of such a history? Would it not be the history of a long series of benevolent efforts to succour the destitute, heal the sick, and alleviate the ills of mankind? Would it not be the history of men whose lives were devoted to doing good to their fellow-creatures—of men whose efforts had been spent in investigating the secrets of nature and making every advance in science available for the benefit of humanity? Would it not be the history of one of the grandest and most venerable of those institutions which are the direct outcome of our common Christianity and the glory of our land?

But I do not propose to offer you any attempt at such a historical sketch, whether for the purpose of congratulating you on the present position and prospects of your hospital and school, or at the risk of posing as a *laudator temporis acti*. I wish rather to be allowed to ask you, as I asked myself after my former pupil, your distinguished and respected Teacher and Dean, had requested me to give the address on the opening of the present session, what is it that those who are entering on the medical profession are about to undertake? What is comprised in the preparation needed for rightly fulfilling the duties that will devolve upon them? These, surely, are questions that every one entering our profession should put to himself. But how few do so or give to them due consideration. It is only when we have entered on the duties of our calling, and by experience are made aware of the magnitude, nobility, and responsibility of the office we have undertaken that in our thoughtful moments we become to any adequate degree sensible of the requirements which our profession demands. The subject is far too extended and serious to be adequately treated

in a brief address. But some very general considerations on a few points admit of being submitted for future thought; and if these should help you in any measure more adequately to realise what it is that you who are entering on your profession have undertaken, I shall be satisfied.

The poet tells us that "the proper study of mankind is man," but man is in a special sense our study; man in his entirety, physical, intellectual, and moral; man not only as the highest type of the animal kingdom, a constituent part of the created universe, and therefore subject to its laws; but man also as an intellectual and moral agent, subject to other and higher laws of the Great Lawgiver, of Him whose will is the one and only source of all law, whether physical or moral. Like all other living beings, we are subject to those laws and conditions on which life depends, and as intelligent and moral beings, members of a society of fellow-beings, subject to laws whose maintenance is essential to social life, not to mention those higher laws by which we are linked to a higher and more enduring life. All of us, therefore, must become more or less practically acquainted with the conditions under which we live, whether as individuals or members of society, and must learn, more or less accurately, the consequences of infringing the various laws to which we are subjected. The degree in which such knowledge is essential will differ in different circumstances and callings in life; but absolute ignorance is incompatible with either individual or social life. We, whose office it is especially to study all that relates to the life and health of our fellow-men, have to study man not only as an organised being in all his relations to the external world, but also as endowed with reason and a mental constitution with which his physical nature is combined, by which his material organisation is constantly influenced, and by which he is capable of influencing and is influenced by his fellow-men.

It requires but a very slight acquaintance with the practice of our art to learn how greatly the equilibrium of health depends on the due regulation of psychical as well as physical causes, and how much the influence and success of the medical adviser depends on the exercise of those subtle powers which are not to be weighed by grains and ounces. In common with all men, we are bound to be just, manly, gentle, and loving towards all men with whom we have to do; but as members of a high and noble calling, to whom not only the lives and health, but to a large extent also the private and social interests, of our fellows are entrusted, we are under moral obligations of special and solemn stringency. We must learn not only how to regulate our own mental and moral powers so as to exercise our art with the fullest benefit to our patients, but must make it an important part of our study to watch, analyse, and estimate aright the various and ever-varying mental manifestations of our patients. It would be a great mistake to suppose that mental and moral philosophy, the study of the intellectual powers, were required for those only who intend to devote themselves to psychiatrics. Nor is it merely as contributing in no small measure to our therapeutic power that such studies are important. In the more strictly scientific departments of the investigation of disease—ætiology, diagnosis, and prognosis—they are of equal moment. There is good reason for believing that in our present state of civilisation many more of our most important diseases than we have hitherto imagined have not merely a nervous, but a strictly mental origin. Happily, through the labours of such men as Bell and Marshall Hall among others, and by means of experimental physiology, our knowledge of the nervous system has been greatly advanced. The influence of mind over body is indeed no new discovery, though of late much more has been affirmed than can be proved of the influence of the material on the immaterial. Where the initiatory steps in the production of disease take place, and what is their precise nature, are indeed questions which physiologists and pathologists alike confess to be involved in mystery. But that in many instances their first manifestation is in the nervous system there is good reason for thinking, and that mental states and impressions do not only induce functional disturbance even to the extent of sudden arrest of function and consequent death, we have abundant proof. The action of the heart, respiration, and secretion are all greatly influenced by mental states. Moral emotions that may cause the death of the mother by sudden arrest of the heart's action may also destroy the life of the infant at her breast by poisoning the nourishment that she supplies. The effects of remedies are largely determined by mental states. They become potent, modified, or inert, according to the mental state of the recipient, and this constitutes no small difficulty in determining their true action.

It is therefore not merely as a part of that general culture and preliminary education required of all who claim to be well educated that it behoves us to give mental philosophy or study of intellectual powers a place in our curriculum. Nor is it merely as members of society and fellow-workers that we are bound to be guided by sound views of moral philosophy or ethics. For the direct purposes of our profession we need to give due regard to the reciprocal influences exerted between mind and body, to the moral powers with which we are endowed, and the modes in which they can be brought to bear on the welfare of our patients. The will, the imagination, emotions, affections, and desires, hope, fear, moral habits and conscience, all exercise an influence on the aspect, course, and final issue of disease. They require each in their turn due consideration from him who would rightly fulfil all that duty demands, or ensure his own success.

How often do we not see an ignorant empiric succeed in cases that have baffled the efforts of legitimate scientific physicians, whilst we perhaps merely pity the credulity of the patient, or sneer at the ignorant pretender to science? His so-called remedies have probably been absolutely inert, but he has called into action powers to which we have attached too little importance, or have altogether neglected—the stimulus of hope, the sedative of confidence, or the mere diversion of the attention from objects which, by their absorbing and depressing influence on the mind, have enfeebled and exhausted every vital power.

But if on the part of our patients and in the ordinary intercourse of life it is important to avoid the two extremes of credulity and scepticism, it is doubly so for us who are engaged in investigating the complicated phenomena of life and all that concerns its maintenance on the one hand, and on the other all that relates to the origin, nature, and prevention of disease. How vast is the field of our observation. How varied, intricate, and often mysterious are the subjects of our investigation. How numerous the fallacies and errors to which we are exposed. How difficult to elicit even the most fundamental truths that are to be the basis both of our science and our art. How important is it that we should be provided with all that constitutes a well-trained and regulated mind, in order to secure and make available for our great purpose in life truth and truth only.

Both our science and art are largely based on the observation and collection of facts. Now, there is a great difference in the observing powers possessed by different individuals; but we all require to carefully cultivate these powers, and by habits of close and continual practice render them both quick and accurate. Having ascertained, as carefully as may be, the certainty of our facts, the utmost care and honesty of

purpose are required in tracing their mutual relations and drawing conclusions from them. All prejudice and preconceived notions must be excluded in determining whether any two facts stand in the relation of cause and effect, and in deducing general principles from any number of facts. Habits of close reasoning and the exercise of sound judgment are essential to our success. In medicine the difficulties are far greater than in the physical sciences in applying the strict rules of philosophy to the investigation and determination of truth. We have far greater difficulty in determining the uniformity of phenomena arising both from their greater variety and complexity, and also from our imperfect acquaintance with the influence of external agents on the living organism. We must still submit to be taunted with the uncertainty of medicine; but may, I believe, affirm with confidence that this uncertainty is daily decreasing, and may rest assured that it is only by the steady pursuit of knowledge along the strict lines of philosophical investigation, that truth and certainty are to be attained. Let me here ask you to listen to what Lord Bacon says of the mental qualifications for the study of truth.

"For myself, I found that I was fitted for nothing so well as for the study of truth; as having a mind nimble and versatile enough to catch the resemblance of things (which is the chief point), and, at the same time, steady enough to fix and distinguish their subtler differences; as being gifted by nature with desire to seek, patience to doubt, fondness to meditate, slowness to assert, readiness to reconsider, carefulness to dispose and set in order, and as being a man that neither affects what is new, nor admires what is old, and that hates every kind of imposture."

Now, gentlemen, do not suppose that by such observations as these I am anxious to lead you into the barren fields of metaphysical speculation, and encourage you to form theoretical views of medical science, and become speculative practitioners. Far from it. I would rather warn you against wasting your time and muddling your brains by so-called systems of philosophy, which minister questions that are insoluble, and are fertile only in raising doubts and spinning ingenious fancies and impossible theories. Such things may have a charm for some minds as affording intellectual recreation, and as possessing, indeed, a show of reason, but for the real purposes of life they are little better than verbal and vain janglings.

I wish simply to impress you, on the very threshold of your studies, with the importance of entering on them with that knowledge of your own intellectual powers, and those principles of mental philosophy which are essential in all scientific pursuits. I wish you to keep in mind that in the practice of your art you have to do with the intellectual as well as the physical constitution of man, that you have moral relations to your patients of the highest importance, both to their and your own welfare. If I might venture to recommend any particular books on these subjects, I would mention those of Abercrombie, particularly his admirable and instructive "Treatise on the Intellectual Powers."

When entering on the investigation of man's physical constitution as the highest type of organic life, you will soon be made aware how intimately connected are anatomical or structural studies with those relating to function, both healthy or physiological, and perverted or pathological, and you will soon learn that whilst acquaintance with the principles of almost every department of physics and natural science is required rightly to understand the structure and actions of the human frame, we have at the bedside to do with something that cannot be studied in the dissecting-room and on the *post-mortem* table. The history of medicine sufficiently demonstrates indeed how little could be ascertained of vital actions or the nature of disease, so long as the structure of the body and the physical alterations effected by diseased action were unknown, But with all the progress that has been made in recent times in our knowledge of our bodily organisation, and the flood of light thrown on the nature of those actions by which life is maintained through the advance in physical science, we are encountered at every step in our studies by evidence of the existence of powers and actions which all our physical science has hitherto proved inadequate to explain. Life is still the great mystery. And life, as we know it here, is ever passing into death. The very actions, so far as we know them, by which life is maintained are ever working by sure and inevitable steps to the destruction of life. All we can do is in some measure to modify those actions and avert those causes that interfere with life, and so to prolong for a short space its continuance, and render it at the same time a more unalloyed source of enjoyment, a means of greater benefit to our fellow-men, and of fulfilling the great end of our existence. Day by day we are learning more and more how inadequate is our most intimate knowledge of structure to explain the real nature of those vital actions by which our frame is built up with materials obtained from without the body, and dead matter converted into living, and how small a portion of that pathological knowledge we so much need is derivable from the examination of morbid structures. But, happily, we have acquired much, and hope to obtain more, knowledge of the exciting causes of many diseases, and can in numerous cases assert their action. We can understand much of the ways in which perverted nutrition and altered structure interfere with healthy function and endanger life. We can effectually remedy some of these things, and in important degrees diminish the perils arising from others. We can alleviate the pain and inconvenience associated with many diseases, and can save many lives from immediate and inevitable death. By our knowledge of the influences of external agents on living organisms we can diminish their danger to life and health, and make many otherwise impossible occupations compatible with human welfare. We can prolong the duration of human life, and have added to its sum total. We can comfort many an aching heart, solace many a weary mind, and bring joy and gladness into many a home in a way that no other body of men can. The benefits that we can confer, the good that we can do by our science and art are as extensive as humanity, and all ranks and conditions of men in ages yet to come will have cause to bless our Harveys, Hallers, Hunters, and Jenners.

But why do I venture to indulge in this strain of seeming self-laudation? Because I do not wish that you should be discouraged by the extent, variety, difficulties, and mysteries of the studies on which you are entering, but rather that you should congratulate yourselves on having adopted a course of life worthy to engage all the highest powers of man, and capable of conferring the greatest blessings on mankind. A life it is that will indeed not be free from care, anxiety, toil, and self abnegation, but fraught with pleasures and satisfaction of the purest kind.

The connection and relative importance of the different departments of your studies and the present aspect and position of our science you will learn from their respective teachers. The facilities and advantages which you possess in the present day for carrying on your study in the various subjects that lie at the foundation of all your professional education are very great; but with all these aids you must be prepared to find some of them at first irksome and devoid of much apparent interest. By industry and resolution you will soon get beyond those first steps that are always more or less rough and difficult. As you advance

your progress will be easier, and if you are at all worthy of your calling each step will be found of increasing interest and delight. On the actual position and prospects of our science in its various divisions I shall not attempt to enter. In some the outlook is more encouraging than in others. In some of the special subdivisions the practical application of our science has been followed by results of the most gratifying and salutary kind, whilst with respect to others sceptical outsiders are prone to exclaim "*Cui bono?*"

On one or two points I venture to offer a few remarks. Histological investigations have for some time been pursued with great ardour and diligence, and with undoubted and important increase of our knowledge both of function and structure, but whether with a corresponding augmentation of our therapeutic powers may be doubted, and whether such studies have not too much diverted our attention from the general laws of disease and the broad principles of practice is a grave question. At all events it is, I think, not a needless caution in the present day to warn you against coming under the description of Goldsmith's "puny pedant, who finds one undiscovered property in a polyp, or describes a hitherto unheeded process in the skeleton of a mole, and whose mind, like his microscope, perceives nature only in detail." I am speaking to those who are supposed to be preparing themselves for the practical duties of their profession rather than to scientific investigators. Again, many of the subjects of scientific enquiry in the present day are of such surpassing interest, and I may say fascination, as well as importance, that they are calculated to occupy the student's mind so as to interfere with other topics, and give a colour to his views both of science and art detrimental to his therapeutic success. Still more do we need to be on our guard against being influenced by the mere fashions and notions of the passing day, and taking up the endless whims and baseless theories that happen to have gained the ear and secured the patronage of the public.

It is certainly remarkable how little of our most trustworthy therapeutics has been the direct deduction from our scientific knowledge. Nay, how many of our most valuable and best-tested remedies have been acquired by accidental observation! How entirely ignorant are we of the mode of action of some of the most reliable! Quinine or bark from the time of its discovery has held its place as one of our most valuable and certain remedies, and we have recourse to it with the utmost confidence in intermittent fevers and neuralgias, knowing nothing of the real nature of its operation. The most philosophical physician, and one of the best of men whom I have ever known, the late Professor Alison, at whose feet I had the privilege of sitting, and under whom I acted as clinical clerk, gave it as his opinion that we must look mainly for the advance of practical medicine to more accurate knowledge of the exciting causes of disease, and to the discovery of fresh specifics which may exercise the same influence over diseased actions as cinchona in intermittent fevers, citric acid in scurvy, and vaccination in small-pox. Two remedies that have come into use since his day, iodide and bromide of potash, approach nearest to the claim of being considered as specifics, and have proved of inestimable value; but their employment has not resulted from scientific induction either from physiology or pathology. It is also deserving of remark that in proportion as any medicine is found to be adapted to any particular morbid state, it is well borne by the economy, to the extent even of entirely masking or overcoming its ordinary physiological action. But experimental physiology and pathology have thrown much light on the action of many medicines, and we have thus gained no small amount of reliable information on the means at our disposal for modifying vital actions and controlling disease. The danger to life and the destructive course of disease are in many instances mainly referable to excess or defect of particular functional activities, which admit of being controlled by remedies proved to be capable of exercising the required influence. The incalculable blessings conferred by anæsthetics have been obtained by experimental investigations into their chemical constitution and influence on the nervous system. These and other instances of important augmentation of our therapeutic resources are a sufficient answer to the objections now so frequently and mischievously raised by mistaken opponents of experiments on the lower animals. Again, in the case of parasitic diseases, our knowledge of their true causes and nature has led to the discovery of appropriate and efficient remedies. And there can be no doubt that in other and more complex forms of diseases in proportion as we know their essential nature, our therapeutic powers will be increased.

Although there cannot, I think, be any doubt that by a judicious combination of medicines we often obtain advantages that could not be gained by single drugs, polypharmacy has been a great evil; but its days are well nigh gone, and the greater simplicity of our present practice is no doubt conducive to more accurate knowledge of the real therapeutic value of medicines. But whilst admitting the urgent need of still further careful observation and experiment in this field of enquiry, and though far from underrating the power of controlling, and even curing, disease already afforded us by many drugs, I would urge you ever to remember that therapeutics are no more comprised in the due administration of drugs than is pathology in a knowledge of morbid structures. It is well that young practitioners should see and appreciate the truth and depth of meaning in the dictum of Celsus,—*Optima medicina est non uti medicinâ*,"—a maxim which a certain class of practitioners have very dexterously turned to their own no small advantage.

Therapeia with the ancients comprised all that related to the care of the sick with a view to their comfort and relief; and in the present day hygienic rules, diet, and regimen are comprised under the head of therapeutics. It is here that we have met with most success and have won our greatest triumphs. It is here that all our labours in the investigation of structure and vital action have borne fruit; it is here that we have been able to profit by all the advances in physical sciences. Fuller knowledge of the exciting causes of disease has enabled us to make important steps towards their prevention; a more intimate acquaintance with the laws of morbid action, and the natural history of disease has enabled us to foresee results and promote or obviate their occurrence. A closer acquaintance with nature's powers in maintaining health and repairing injuries has helped us materially in promoting her efforts and warding off all those influences that tend to interfere with or frustrate them. Surgery perhaps affords us the most signal and indubitable evidence of this; but some of the most complicated, and still in some respects inscrutable, forms of disease that fall under the care of the physician—specific fevers—might also be cited. More attention to the influence exerted on the aspect and course of disease by different circumstances and conditions of life, by differences of season and general epidemic character, have shown us the fallacy of supposing that the same disease is always to be treated in the same way, and thus leading us to prescribe for a name rather than for the particular case under view. If we take so common a disease as pneumonia, for example, of the nature, course, and general manage-

ment of which we know more than of many other diseases, how different is its mode of access in different cases, the degree and kind of danger attending it; how different its progress; how different the constitutional condition of the patient, his hygienic and moral circumstances. Manifestly the plan of treatment and the action of remedies must correspondingly vary. Theoretical or scientific views of pathology and therapeutics must here give place to the sagacity, experience, and judgment of the physician, even at the risk of his reputation by running counter to popular views and received rules. It is evident that when encountering new forms of disease, or which are new to us, we must be guided by analogy rather than by definite rules.

It may perhaps be questioned how far the varied aspects presented by disease at different periods will account for or justify the abandonment of remedies and plans of treatment that have been found successful in other times; or how far we are influenced consciously or unconsciously by theoretical views into which we have been led by recently discovered scientific facts. In practice we must still to a large extent be guided by those broad general principles that have been best established by observation, and stood the test of long experience. In our art, *vixerunt fortes ante nos;* and we have but to look at the records of the past to be convinced how large a part of our most trustworthy practical knowledge has been transmitted to us by men who have gained the admiration and gratitude of their posterity by their sagacity and powers of patient accurate observation rather than by the theoretical views and systems associated with their names. Systems of medicine have passed into limbo, and we are happily free, in the present day, from their shackles; but we cannot ignore or neglect knowledge accumulated in the past, because we cannot make it harmonise with our more advanced physiology or the marvellous discoveries in the field of microbiology.

During your studies here you will have but little time for reading beyond what is comprised in text-books, and that little had better be devoted to general literature as a source of mental recreation from professional occupations. But the leisure hours of future life will be profitably employed in learning what has been thought and done by the great men of the past. In the history of medicine you will find much to interest as well as to instruct you. Stores of wisdom are to be found in the writings of bygone observers that may be made practically available at the present time, and assistance often obtained on questions of the day by learning the errors and mistakes, as well as the discoveries, of the past.

In practice each individual case of disease to which we are called must be made a special study. It is not enough to ascertain that we have to do with gout, pneumonia, or typhoid fever, whichever it may be; each example of disease and each patient must be made a special study. We have to take into consideration all that relates to the climate, season, hygiene, and social condition of the patient, his hereditary and constitutional characteristics, his idiosyncracies and past history, so far as we can learn them. And in the management of each case there is scarcely any circumstance, however trivial apparently, that may not exert an influence on our success, any and every source of irritation, whether bodily or mental, the position of the patient or his bed, the aspect as well as the nature of his food, his prejudice in respect of a particular medicine, his liking or aversion for a particular attendant, and all that relates to the nursing and economy of the sick room.

It is not enough to lay down rules of diet. You require to know that the food is properly prepared as well as its special adaptation to the patient's case; and to these ends you must know the principles of the science as well as the art of cookery. For cookery is a veritable science as well as an art. Among the poorer classes there is not only grievous waste from ignorance or neglect of the right methods of obtaining the full amount of nutriment from each variety of food, but many unfounded and hurtful prejudices against the use and best modes of preparing such food as is needed in sickness. You will render no mean service to your poorer patients by instructing them on such points, and will greatly enhance your therapeutic powers by a knowledge of the chemistry of food and the best means of preparing it for the purposes of nutrition. Your personal influence in the sick room will be more or less in proportion as you learn to exercise in each case the precise moral control that it requires; and whilst to secure the confidence, good opinion, and gratitude of your patients are in all cases legitimate objects, their real welfare and the fulfilment of your duty must ever override all considerations of your own social success. Assumed and affected manners are to be deprecated, whilst a kind and sympathetic manner should be sedulously cultivated. Gentleness should be combined with firmness, cheerfulness with sobriety, caution with confidence. and a general deportment consistent with the gravity of your office, and the particular requirements of the sick should be your habitual study.

In such a profession as ours every well-conducted and fairly qualified man may look with confidence to a certain amount of social success and opportunity of benefiting his fellows, may secure the esteem of the worthy and the blessing of such as were ready to perish. It is not indeed given to all to make discoveries in science, or effect important advances in our art; but each may do something, and it is imperative on all to make it an object, and consider it a duty, so to live that those who come after us may be the better for our labours. Some by the particular circumstances in which they are placed may have opportunity for special observation and investigation of particular forms of disease which should not be lost. All by careful trustworthy observation of nature and truthful records of work may contribute somewhat to the common stock of knowledge; but such records must be made, not with a view to a fleeting reputation or the gratification of personal vanity or ambition, but with the object of eliciting truth that shall prove to be for the good of man's estate. Whatever the genius of some or their special advantages may enable them to effect, it is by that close observation of nature, which all may and are bound to cultivate, that most of us can hope to attain what should be the desire of everyone.

"Where natural logic prevails not, artificial too often faileth," says that quaint old philosopher, moralist and physician, Sir T. Browne; "where nature fills the sails the vessel goes smoothly on, and where judgment is the pilot the rate of insurance need not be high; where industry builds upon nature we may expect pyramids; where that foundation is wanting the structure must be low. They do most by books who could do much without them, and he that chiefly owes himself unto himself is the substantial man."

Queen's College, Galway.—The report of the President of Queen's College, Galway, for the session 1883–4, has just been issued as a Blue-book. In referring to the condition and the progress of the College, the President regrets to report a continued decline in the attendance of students, there now being 103 against 144 the previous year. For a diminution so large and sudden, he says, it is easy to find an adequate cause in the dissolution of the University organisation of which this college formed a part. The decline is stated to be almost exclusively confined to the faculty of medicine.

INTRODUCTORY ADDRESS DELIVERED AT THE MIDDLESEX HOSPITAL.

By DAVID W. FINLAY, B.A., M.D., M.R.C.P.

Senior Assistant Physician to the Hospital, and Lecturer on Forensic Medicine and Public Health in the Medical School.

Gentlemen,—Not the least of the difficulties besetting the position which I have been called to occupy on this occasion lies in the choice of a suitable subject on which to address you. This arises partly, no doubt, from the embarrassment attending on riches, and partly because the thousand and one of such addresses standing on record forbid, to me, at least, much in the way of novelty. One part of my duty, however, is easy as well as pleasant, and that is to offer you all, on behalf of my colleagues and myself, a hearty welcome to these benches, and to congratulate you on the choice of an honourable and self-sacrificing profession.

In many respects it is the noblest calling in which you could engage, and it is one of correspondingly high privilege and responsibility—privilege in numberless opportunities of doing good—responsibility in making the best possible use of your powers to this end. Cicero's words still remain true as when they were first uttered: "Homines ad Deos nullâ re propius accedunt quam salutem hominibus dando." What constitutes, as it appears to me, the chief attraction of the profession of medicine is that it satisfies both the intellectual and sympathetic side of our nature; for while the field for acquiring experience and also for research is boundless, the results arrived at are made directly serviceable in the treatment of our fellow men, in relieving pain, in restoring function, and in saving life.

Although it cannot be said that it is a very lucrative occupation, still, even on this lowest platform, it will bear favourable comparison, in one respect at least, with most other professions; for of the trinity of Physic, Law, and Divinity, I think we may look upon the first-named as the one which, when student days are ended, offers the most reasonable prospect of immediate remunerative employment. In exercising it a few of you may attain to wealth, most will acquire a comfortable competence, and there is probably no one to whom it will not bring at least a livelihood if its objects are pursued with steady industry, even although unaccompanied by much natural gift.

A wide field in the domain of medical practice is open to your choice. Many of your predecessors have entered the Medical Department of the Army and Navy; the Indian Medical Service has attracted others. The Mercantile Marine, besides giving an opportunity to many for the exercise of their profession, offers facilities for foreign travel, for the building up of health after the labour and anxiety of study and examination are over, as well as for that enlargement of the mind, which, to the observer of men and manners, always comes from seeing strange lands and rubbing shoulders with men of all kinds and classes. The multitude of the colonies also lies before you; and for those who prefer to settle down quietly in the old country with its teeming populations, there need be no lack of opportunities of advancement and distinction, although where competition is keen pressure is high, and tear and wear of body and mind are correspondingly great.

But no prosperity, nor distinction, nor anything else worth having will be gained without honest and steady work; and I beseech those especially who come here for the first time to make a good start by cultivating habits of application and industry and method from the very beginning of their studies.

I have never forgotten the sentiment contained in one of Ovid's couplets, which I used to read as a boy at school, which I would commend to the notice of you all—

> "Quæritur Ægisthus qua re sit factus adulter
> In promptu causa est, desidiosus erat."

The idle man has his mind open to attacks of all sorts of folly, and temptations to idleness and worse than idleness abound in every large city. There is no surer way of keeping clear of all such entanglements as may lead in the end to moral loss and wasted lives than to have your minds preoccupied with something that is good and useful, and you will find the time allotted for your curriculum none too much for the acquirement of the knowledge necessary for passing your qualifying examinations, and fitting you for your start in life. Habits of idleness are too often acquired in the first year, and the subject of them is overweighted in succeeding sessions; he probably fails to pass his primary examination at the proper time, and if he ultimately makes up for lost opportunities, it is only after a grievous expenditure of time and irksome labour. It is not too much to say that the amount of labour necessary for merely overcoming the bad habits acquired in his first year would have carried him safely through all the quicksands of his qualifying examinations.

In referring thus particularly to examinations, I would not wish you to take any exaggerated view of their importance. Look upon them only as means to an end, but means without which you cannot even enter upon that end. You can have no independent professional life until you obtain a legal qualification, and hence anything which will conduce to your certainty and comfort in this matter is not to be lightly set aside.

In this connection I would strongly advise you to lose no opportunity presented to you of taking part in both written and oral examinations. I have long been convinced that students often fail before examining boards not because they have not a "pass" amount of knowledge, but from failure to display to the best advantage the knowledge they possess. From whatever cause arising, this is best guarded against by the familiarity which you will have abundant facilities for acquiring during your curriculum as students, for here, as in everything else, "practice makes perfect."

Let me also impress upon you the value of regularity and punctuality of attendance in your classes. By the neglect of the former you squander your own time, by unpunctuality you waste also that of others.

In enforcing this point I will quote the words of the late Sir Robert Peel, addressed to a gathering of students: "Practise the economy of time; consider time, like the faculties of your mind, a precious estate,—that every moment of it well applied is put out to an exorbitant interest. When you have lived half a century you will have seen many instances in which he who finds time for everything—for punctuality in all the relations of life, for the pleasures of society, for the cultivation of literature, for every rational amusement, is the same man who is the most assiduous and the most successful in the active pursuits of his profession. Estimate also properly the force of habit. Exercise a constant, an unremitting vigilance over the acquirements of habit, in matters that are apparently of entire indifference, that perhaps are really so, independently of the habits which they engender. It is by the neglect of such trifles that bad habits are acquired, and that the mind, by tolerating negligence and procrastination in matters of small account but frequent recurrence, matters of which the world takes no notice, becomes

accustomed to the same defects in matters of higher importance."

I do not propose to say much as to the way in which you should pursue the study of particular branches of your curriculum, but one or two remarks may not be out of place.

And firstly with regard to Anatomy. It is hopeless to expect to acquire any useful knowledge here without regular and patient dissection. Demonstrations, of course, you will have to help you, but you must not fall into the error of supposing that these can ever take the place of personal acquaintance, if I may so put it, with the parts of the human body themselves. The more and the more carefully you work at dissection the better will your knowledge of anatomy be, the more firmly will the multitude of its facts be imprinted upon your memories, and the surer will be the foundation upon which the superstructure of your professional learning generally has to be built. In this, as in all other departments of knowledge, you must remember that—

"Study is like the heaven's glorious sun
That will not be deep-searched with saucy looks."

Besides the advantage I have spoken of, you will acquire habits of self-reliance the benefits of which will remain with you all your lives, and not only of self-reliance, but also of care and neat-handedness, which in intricate surgical operations is of the greatest value.

You ought also to strive to be well grounded in Physiology and Pathology. The former teaches you what is the normal function of the parts you have dissected, the latter concerns itself with abnormal function and the changes produced in the organism by disease. And just as I have said Anatomy cannot be learned away from the dissecting-room, so you cannot attain to a serviceable knowledge of Pathology unless you give unremitting attendance in the *post-mortem* room. Here you will see and handle the results of disease, and in a very literal sense—

"Rise on stepping stones
Of your dead selves to higher things."

In histology too, which you will find opportunities of studying in connection with these, you will gain still further the methodical care and neat-handedness of which I have already spoken; in addition to which the microscope will open up to your view wonders of minute structure normal and abnormal, as interesting as anything you could conceive.

These three, Anatomy, Physiology, and Pathology, may be looked upon as corner stones apart from which you cannot build anything better than a house of cards, but there is no part of your curriculum which you can afford to neglect, if you would reap all the advantages possible from your career as students.

I would advise you to have as little as possible to do with "coaching" and books of "cram." "Aids" they are called, on the principle I suppose "lucus a non lucendo." In regard to the former, if you follow the principles I have advocated you will not need it; as to the latter they are only fitted to impart a superficial smattering of knowledge of a very evanescent kind. Synoptical summaries of compared and contrasted facts are very useful, but you should construct the summaries for yourselves. In this way they become imprinted on your memory as the essence of your own reading and observation, and are never forgotten.

Be your own "coaches." Among your companionships you may easily form yourselves into small classes for mutual help, for receiving and imparting information; and such associations, besides enabling you to reach the immediate end in view, may form the basis of life-long friendships of inestimable value.

Most of you are aware that there is in connection with the hospital and school a Students' Medical Society, by the way the oldest of its kind I believe in London; and I mention it to express the hope that you will all not only become members of it but make conscience of taking part in its work. If you do you will find that the writing of papers and taking part in the discussions which are carried on in connection with it, will give you a clearness and conciseness in expression, and readiness in debate which you will probably have no such opportunity of acquiring in after life.

In addressing you last year my predecessor expressed the hope that by this time the Medical Bill which has been so long looked for would have become an Act, and that I might have to point out its bearing upon your studies. But this hope has not been realised, and legislation upon the subject seems as far, perhaps rather farther, off now than it was then. And if we regard the mischief that had been, and was likely to be, worked on the Bill by compromises actual and proposed before it arrived at its last surviving stage, we need not perhaps greatly regret that the vessel foundered before port was reached.

At the same time all the labour expended upon it, and the day-light which has been let in upon some of the licence-granting bodies, have not been fruitless. Many of the Corporations have been led to set their houses in order; and what is perhaps of chief interest to you is the fact that a scheme for the conjunction of the two Royal Colleges of London for the purpose of granting qualifications has been elaborated, and will probably be put in force as soon as it has received the sanction of the Medical Council. You will then have only one examining body to face in order to gain a double qualification. If by some change in their constitution these colleges could only obtain power to confer degrees in medicine and surgery the scheme would be complete, but there are always vested interests and difficulties to be overcome in the way of all such reforms.

I may not close this part of my remarks, having special reference to ourselves, without alluding to the removal from among us of one whose kind and thoughtful face was so often seen at our annual gatherings. Dr. J. Hall Davis, for more than twenty years Obstetric Physician to the hospital, died, peacefully as he had lived, since last we met on an occasion like the present. The son of a distinguished obstetric physician he followed in his father's footsteps, and became one of the most trusted of the leaders of obstetric medicine in the metropolis. He joined the staff of this hospital and school as Obstetric Physician and Lecturer on Midwifery in the year 1863, and only severed his connection with the former by resignation a few days before his death, which occurred suddenly on March 19th last, after a slight premonitory attack of illness from which he seemed to have completely recovered. He had filled in turn some of the highest offices open to the department of practice with which he was connected; and in every walk of life his kindliness, skill and calm judgment were conspicuously displayed. His character was spotless, and professional jealousy had no part nor lot in him. As has been stated elsewhere he was esteemed most by those who knew him best, surely the highest tribute than can be paid to any man.

No one who contrasts the state of medical science now with what it was twenty or even ten years ago, can fail to see that in this, as in other things, we live in an age of progress, and that the science is advancing in an ever increasing ratio. In illustration of this I may point to the discoveries which have been made in the field of bacterial pathology; to the development and extension which have taken place in connection with abdominal surgery; to the greater precision which has been given to diagnosis in the matter of cerebral localisation; and, as regards therapeutics, to

the rapidly extending anti-pyretic treatment of febrile diseases both by internal and external remedies.

And in the domain of Preventive Medicine, State Medicine, Public Health, or whatever it may be best called, no less activity has been observable.

I am led to refer more in detail to this department of medicine for several reasons.

Firstly, on account of its rapidly increasing importance.

Secondly, because it has been brought so prominently before the profession and the public in connection with the Health Exhibition, and it is a good maxim to "strike while the iron is hot."

Thirdly, because my duties in the matter of lecturing bring me specially into contact with it, and lastly, because I have found that students, as a rule, appear unwilling to give to it the attention which its importance deserves.

The last-named reason, I take it, arises from the fact that it is not a compulsory branch of study in the medical curriculum, and this will, I fear, be operative more or less until it is made so. It may be said that the curriculum is too full already, and that to introduce another subject of such wide range as Public Health, would place upon the student a burden greater than he is able to bear. I am not prepared to deny this, but then a method of relief might be found in lightening his load at some other point. And it seems to me that this is a question which those who have the regulation of such matters will soon have to face, unless the aphorism *Salus populi suprema lex* has lost its force.

In pleading for a greater amount of attention to this department of medicine, it must surely be a strong argument if it can be shown that a notable diminution in the death-rate, which we may take roughly as a measure of disease, and consequent saving of life have already resulted from the system which has been established in this country, and the work which has been done under the various acts relating to the Public Health. Although great antiquity may be claimed for some of the branches of Preventive Medicine, but little was done in regard to it in this country until the great cholera epidemic of 1832 alarmed the community and "led the way to sanitary enquiries and ameliorations." Among others it helped towards the system of compulsory registration established in 1837.

Within a few years commissions were appointed, one on the sanitary condition of the labouring population of Great Britain, which reported in 1842; another on the health of towns, which reported in 1844 and 1845; and a third, the Metropolitan Sanitary Commission whose report appeared in 1847–48.

Then came the passing in the latter year of the Public Health Act, the object of which was to improve the sanitary condition of towns and populous places. By it provision was made for the constitution of Local Board Districts, and a Central Authority, the General Board of Health which was to exist for a period of five years. This board was continued for ten years, however, its functions being then transferred to a department of the Privy Council under the presidency of a medical officer.

Following upon this, in 1871, was passed the Act establishing the Local Government Board to which were transferred the powers and duties of the Poor Law Board and of the medical department of the Privy Council. The following year saw the passing of the Public Health Act which provided for the division of the country into urban and rural sanitary districts, and the appointment of medical officers of health who should be legally qualified medical practitioners, inspectors of nuisances also, and such other officials as might be necessary for the efficient carrying out of the provisions of the Act.

Further progress in legislation was made three years later, in 1875 namely, when the great Act came into operation "for consolidating and amending the Acts relating to Public Health in England." This is still the chief statute under which the Public Health service of the country is carried on.

Legislation has not stopped here, however. A number of Acts have found a place in the statute book having for their object more or less directly the promotion of health and prevention of disease. Among these are the Alkali Act, the Artisans and Labourers' Dwellings Improvement Act, the Sale of Food and Drugs Act, the Rivers Pollution Prevention Act, the Public Health (Water) Act, the Public Health (Interments) Act, and many others.

Such is a very brief sketch of the history of legislation of the subject, and that it was what was chiefly needed in the conflict with disease and dirt, may be gathered indirectly from the quaint remarks of Captain John Graunt, F.R.S., penned more than 200 years ago, which are to be found in an old collection of the yearly Bills of Mortality of the City of London. These remarks show (and the same might be said emphatically still) that a knowledge of what was beneficial was far in advance of the means of compelling its application for the production of good. Speaking of the freedom of London from the Plague and discussing the causes of this freedom, he says:—

"Whether we are become less apt to breed or to receive this dreadful evil, one of the causes of this happy event seems to be the greater freshness and purity of the air of London, since the rebuilding of it after the great fire, the streets being made wider, and the inhabitants not crowded so closely together; as it is perhaps owing to its being more thinly peopled than the rest of the world, that America has never yet been visited with the plague, while the crowded and filthy cities of Cairo and Constantinople are seldom free from it. Another, and probably the most effectual preservative has been the great quantity of water from the Thames and the New River, which for the last century has washed the houses so plentifully, and afterwards running down into the kennels and common sewers, constantly hinders or weakens the tendency to putrefaction; and if more water could still be derived into our houses, streets, and common sewers, it might perhaps fully make amends for the imperfections of quarantines, arising from the thoughtlessness, negligence, avarice, and obstinacy of those who may have the direction of them, or of those by whom they should be performed."

It remains now to look at the results which have flowed from our legislation, and from the increased and increasing spread of sanitary knowledge which has been both its cause and consequence. Well, the advantage which has resulted to the country (I am speaking of England and Wales alone) may be seen firstly in the general death-rate, which on an average has been steadily declining for the last twenty years, most rapidly and strikingly, however, since the passing of the Act of 1875. The incidence of epidemics and other causes forbid that the rate of improvement should be absolutely and uniformly continuous, but steady average progress since 1875 is conspicuously apparent, the fall being from 22·8 in 1875 to 18·9 in 1881 and 19·6 in 1882, the last year for which the complete returns of the Registrar-General have been published.

Stated in numbers, the following results are brought out, taking for comparison with the years subsequent to 1875, the average death-rate of the ten years 1866 to 1875 inclusive, 22·2 namely. The same rate in 1876 would have meant the death of 30,699 persons who were alive at the close of the year. In 1877 47,821 additional persons would have died; in 1878 15,860, in 1879 36,981, in 1880 42,226, in 1881 86,619,

and in 1882 69,714. If these figures are correct we have here a total of lives saved amounting to more than 329,000.

So much for the general death-rate. Referring, by the way, to the last three cholera epidemics, we see further ground for the influence claimed for sanitary medicine in diminishing mortality. The epidemic of 1848–49 was responsible for 54,398 deaths ; the fatality of that of 1854 was represented by 20,097 ; while in that of 1865–66 only 14,378 lost their lives—a large number still, but only about a fourth of the mortality of the first named epidemic.

If we take now the statistics of some of the zymotic diseases similar results are brought out. This of course is only what we should expect, even more conspicuously, if the position which I have laid down is to be maintained, for zymotic and preventable may be regarded, so far as hygiene is concerned, as in some sort interchangeable terms.

For illustration here, I take typhus, enteric fever, and the so-called simple and ill defined or simple continued fever of the Registrar-General's reports—typhus and enteric fever because we know perhaps more about them and how to prevent their spread than is the case with most other diseases of the same class. We know that the potency of the typhus poison is destroyed by fresh air, and that with pure water supply and unimpeachable drainage enteric fever makes no headway. With regard to the other, surely it is misnamed. The simplicity of a fever ending in death is not very obvious, and to call it "simple" and "continued" is to use two epithets mutually destructive. It would be interesting to know how many cases were relegated to this class after *post-mortem* examination. I think we may safely conclude that almost all the cases appearing under this heading are cases of enteric fever. Nearly as much as this indeed is admitted by the Registrar-General in his report for 1879.

Corroboration of this view may be found in the fact that the total number of deaths included under simple and ill-defined fever has diminished much more rapidly than those ascribed to enteric fever, probably from increased accuracy in diagnosis. Thus, since 1869, the first year when the classes of disease I am speaking of were returned under different headings, the number of deaths from simple and ill-defined fever have decreased from 5,310 to 1,016, while enteric fever has only decreased from 8,659 to 6,006. This would not seem any great result in the case of the latter ; but if we add the totals of the two together as I think may fairly be done, for the reason I have already stated, the decrease is from 13,969 to 7,052, a difference in favour of the last year of 49 per cent. In regard to typhus the difference is still more marked. Here the decrease has been from 4,281 in 1869 to 940 in 1882, or rather more than 78 per cent. Even this result, enormously favourable as it is, does not give a fair statement of the case, for if we take the average of the three preceding years, which is only 538, we get a decrease equal to 87·4 per cent. A comparison of results in these two classes of cases furnishes of itself a strong argument in favour of the claim I make for sanitary medicine, for we may look on typhus as probably the most preventable disease of the zymotic class.

I will now compare the results just arrived at with what we find to be the case with regard to some of the diseases which are not included among the zymotics.

If we find that there is no decided and tolerably regular improvement with them, the case which I seek to prove must be greatly strengthened.

For illustration here I have taken rheumatism and diseases of the respiratory system (excluding phthisis and croup, which are now returned separately in the Registrar-General's tables).

Comparing the mortality curves for the same years of these diseases with the zymotic diseases to which reference has already been made, it will appear that while in regard to the former there is a certain amount of fluctuation, owing probably to climatic influences, there is no average tendency to diminution in the rate. In the case of the latter, on the other hand, there is an almost unbroken progress downwards from first to last.

The difference in the rate of decline in the deaths in urban and rural districts furnishes another argument. Taking from the Registrar-General's table the averages of the years 1847 to 1850 inclusive, the three decennial periods 1851 to 1880, and calculating in the same way the average for the years 1881 and 1882, the range is from 26·9 to 20·7 for the urban, as against 20·6 to 17 for the rural, the rural being 23·4 per cent. below the urban for the former period and only 17·8 per cent. for the latter. This shows that the towns have been gaining on the country districts in the matter of health. The inference is that sanitation has been better attended to in the towns, and also perhaps that in them, owing to density of population and other causes, there has been more room for improvement.

No better proof here could be adduced than the case of the city of Glasgow, where, owing to the sanitary work so ably inaugurated by Professor Gairdner, of the University, the first appointed Medical Officer of Health, and no less ably carried on by his successor, Dr. J. B. Russell, the "fever" death-rate has fallen from 16 per 10,000 in 1871 to 4·3 in 1881 ; and, whereas, in the epidemic of 1847, 11,425 cases of typhus were admitted into hospital, the average for the ten years 1873–82 has barely reached 310. Similar remarkable results are shown in regard to small-pox, from which there have been only 25 deaths in seven years in a population approaching half a million.

If it be asked what proof there is that these improvements in healthiness are due to the progress of preventive medicine and the increase of sanitary knowledge, I can only reply by asking to what else they could be ascribed ? It may be that the lessened consumption of alcohol which the revenue returns of late attest, and the spread of general education may have had some share in the result, although even here the influence of instruction in sanitary knowledge is not wanting ; but the considerations which have been adduced are sufficient, I think, to compel the belief, that in the main, improved sanitary organisation and the advance of the country in the ways of health stand to each other in the relation of cause and effect. But it must not be supposed that we have even now arrived at the summit either of our ambition or our ability, and what we have got ought only to make us desire and strive for more. There never was a time when there were so many workers in the field ; and with the researches which are being pursued on all sides into the ætiology of the more preventable diseases, with the philanthropy and statesmanship which are being brought to bear upon some of our most difficult social problems, we may well cherish the hope of as great an advance in the future on our present position, as our present is upon that which existed when preventive medicine was hardly thought of, an advance which will realise the estimate of eminent sanitarians of a death-rate not exceeding fifteen per thousand of population. Translated into numbers this would mean a saving of upwards of 100,000 lives in a year, over the lowest rate that has yet been reached in England and Wales.

There is also plenty of good work yet to be done, and opportunities are likely to occur in the practice of every one of you. You have brilliant examples too in such men as the late Mr. Netten Radcliffe, in whose comparatively early death the world of sanitary science

deplores the loss of one of the ablest and most indefatigable workers in the field of epidemiology.

Do not forget that there is personal as well as public hygiene, and that even inculcating cleanliness and the value of ventilation upon those classes of patients who are little likely without such teaching to be impressed with their importance will not be done in vain. Nor will you go far without meeting with examples of defective sanitation in the construction and arrangement of dwelling houses. When we find rats and mice in drinking water cisterns, over-flow pipes from the same led directly into soil pipes, house drains untrapped before entering the main sewer and unventilated, all of which I have seen lately in this West End of London in highly-rented houses, you may appreciate the scope there is for improvement, and the need for the diffusion of health knowledge among those at least who construct our dwellings.

A case which came under the notice of Mr. Balding, of Royston, is so remarkable that I refer to it more in detail.

Diphtheria recently occurred in a country house where from time to time there had been outbreaks, although not severe ones, of sore throat and diarrhœa. In making an investigation into the probable cause of the diphtherial attack, the drainage arrangements were overhauled and the following condition of affairs was found.

Close to the house was a large sewer into which the drains from the house and one from the stables emptied themselves. The house drains opened directly into parts of the house, one of them into a cellar communicating with the dairy, and they were neither trapped nor ventilated. There was an enlargement on the main sewer into which the house drains passed, and it was found that this part had not been cleaned out since the year 1811. In endeavouring to clean it out when the recent investigation was made sewage flowed back into it in great quantity, coming from the further part of the large sewer which was 125 feet in length and ended in a chalk pit that distance from the house. This sewer deepened at its further end where it contained over 8 feet depth of sewage material, the greater part being solid and estimated to amount to 1,700 cubic feet. It was ascertained that this part of the sewer had not been cleaned out for more than 80 years.

Cases like these point to the necessity of adopting some such plan as has quite recently been proposed in Glasgow, which seems in this as in so much else connected with advanced sanitation to be destined to take an honourable lead, of the appointment of an official whose duty it should be to survey the construction of the drainage arrangements of new buildings at least, without whose certificate a licence for their occupation should not be granted.

In contemplating the picture I have presented of what Preventive Medicine may be held to have achieved we must not, however, forget that even with the most sanguine anticipations realised we shall have disease, like the poor, always with us. Hence Curative Medicine will always retain its importance, and there is surely room for improvement also here. With increased precision in diagnosis, which we may hope for, we must attain to more successful therapeutics —and I include in the word everything, surgical as well as medical, that makes for healing—because our treatment of disease will rest upon a foundation of accurately observed facts. The recent advance in knowledge of cerebral localisation, with which Dr. Ferrier's name is honourably associated, points, as has been more than once suggested, to the possibility of successful surgical operations in this region. Who can doubt that if we could always come to an accurate diagnosis in the early stage of acute intestinal obstruction, which I may surely designate the opprobrium of medicine and surgery, the results of our treatment would often be more satisfactory? And is it too much to hope that with early diagnosis and immediate abdominal section the lives of some of those who now perish from perforations of the stomach or intestines might be saved?

In conclusion let me say that there are noble traditions connected with the school which you have chosen as the home of your study; where, to speak only of the illustrious dead, Sir Charles Bell, Campbell de Morgan, and Charles Murchison have laboured and taught; and we look to you to keep those traditions bright, and to reflect credit upon your foster-mother and your profession wherever your lot may be cast. If I may repeat anything I have said, it would be to urge you again to earnest work, remembering that whether your talents be ten or one, you will have to give an account of the use you make of them to a higher than any earthly power, and that although "art is long, life is short." In the words of the oldest and best of text-books, "Whatsoever thy hand findeth to do, do it with thy might; for there is no work, nor device, nor knowledge, nor wisdom in the grave, whither thou goest."

INTRODUCTORY ADDRESS DELIVERED AT UNIVERSITY COLLEGE.

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[Abstract.]

After a few words of welcome to the students, the lecturer said that he had too much sympathy with the interests that were foremost in their minds to pass in his remarks beyond the occasion that had brought them together, or to inflict upon them any scientific dissertation, even though he, in so doing, risked the charge often levelled at introductory lecturers of "talking platitudes." So he would begin with the most common place of questions and ask what was the study of medicine which they were there to commence? Even in outline the process was formidable. This was the first of many lectures to which they would have to listen. He was almost afraid to say how many they were—not less than two thousand. It was not their teachers' fault. It was ordained and prescribed by the "powers that be" that they should learn all things by oral instruction. Many subjects could not be taught otherwise. As regards others he for one thought that more latitude might be shown and that the method in which knowledge was acquired might be left in larger degree to the choice of the student. Nor was the prospect less formidable if the nature of their work was looked at. Those who aimed at the higher qualifications had to know something about half the sciences into which human knowledge was divided, and of many they would have to acquire not an elementary but a practical knowledge. Indeed the sciences were few that have no application, direct or indirect, to the vast subjects of disease, its prevention and its treatment. Almost every branch of knowledge, whether it dealt with earth, or air, or water, with the physical properties of matter, or the phenomena of organic life, with the processes of thought or the social economy of communities, touches at some point the varied problems that present themselves to the practitioner of medicine. Nor could it be otherwise. Their life-work was to be the prevention, cure, and alleviation of the diseases of man. "What-

ever else man is," the lecturer continued, "he is part of the material world, and is, moreover, the highest, most complex phenomenon yet discovered, or likely to be discovered, that in which the interactions of force attain the highest elaboration known to us. The most complex form of matter, the most delicate adjustment of force is presented by a nerve cell of the brain. Of the slow, never resting tide of creative development, sweeping on, through ages far behind us, ebbing and flowing, and yet with sure advance, moulding into new forms and higher phases the mysterious elements on and in which it works, with the ultimate result, the highest issue is the subject of your study. But high position entails corresponding instability. The exquisite capacities of organic bodies are obtained by a delicate adjustment of restrained energy, ever striving to gain some lower and more stable state—held in an equilibrium that is destroyed by the slightest change, and is indeed in constant process of destruction and renewal. Hence by altered constitution and function a living organism responds to every variation in the conditions outside it, to every change in temperature, mechanical forces, chemical constitution of its surroundings, and doubtless, although more obscurely, to every alteration in electrical and perhaps magnetic states. To every change in earth or air the human frame is sensitive. Each motion of our rolling world, each wave of light from the far-distant sun, each wind that bears to us the warmth of tropic seas or cold of mountain snows, determines some change in us. An alteration in the soil on which we live may modify completely the processes of life." Hence they might see how wide must be laid the foundation of a general acquaintance with the sciences that deal with the material world before an intelligent superstructure as of special knowledge could be reared. The lecturer then spoke of the double object of their work. "You are here for education as well as for instruction. You are here to acquire the knowledge of fact and rule and theory that you are to apply hereafter in the daily work of your lives, but you are here also to obtain the mental training needful for that application, needful to enable you to use your knowledge under conditions that are ever new and ever changing, to distinguish fact from fancy when they present themselves in unfamiliar aspect, and often in borrowed garb—to trace new facts, new laws among the manifold combinations of phenomena that will be around you in every day's work. Happily, in each department of science the mental training needed to pursue it may be gained in the acquisition of the facts already known. No separate education is needed. If you study well, both wisely and thoroughly, the subjects that form your course, you will be, at the end of the time, qualified, not only in the diplomatous, but, in the fullest sense of the word, to enter on independent work. But the extent to which you obtain this training is chiefly dependent upon yourselves. It is at once an important, perhaps the most important, part of your work, and it is that in which your teachers can do least for you. They can put before you fact and reason, but they cannot, or can only in small degree, compel you to observe, to realise for yourselves the value of evidence, to distinguish fact from theory, and to be on guard against the lurking fallacies which bristle on all sides. They can test your knowledge, and they or others can 'coach' you and 'grind' you, but the process of the instillation of facts represented by these somewhat inapt metaphors may leave you wholly untrained for subsequent work. Your "coach" may carry you through the lofty portals of Lincoln's Inn and Pall Mall, or the lower archway at Blackfriars, and leave you altogether unfitted for independent progress. Your 'grinder' may pass you through his mill with such success that you emerge a flabby mass of factitious atoms kept in the semblance of form by the sack of a diploma, but it is only by your own continuous effort that you can gain cohesion and the power of organic growth. And this effort must be made from the commencement of your studies. Each of the subjects that occupy your earlier years has its own method, and yields you a separate training. In each facts are ascertained and theories verified in a different manner, and this you should endeavour to keep before you in your daily work. This subject has been often dwelt on, and once here with an ability that I cannot hope to rival. I would refer you to, and urge you to study carefully, an introductory lecture that you will find in the library, bearing the revered name of Parkes, and I will content myself with a few instances to show you what I mean."

The various subjects of study were then passed in review, and the special value of each subject, as a means of mental training, was pointed out. The lecturer then urged upon the students the importance of endeavouring to entering into the feelings and modes of thought of the sick so as to ensure considerate tenderness in dealing wite them. "To enter," he continued, "fully and deeply into suffering, with the sympathy that is not only intelligent, but 'with suffering' is impossible. A doctor's work would then be simply beyond human endurance. To him, as to no other, the darkest side of human nature is ever open; in his ears the deep undertone of sadness rings through every chord and melody of life; now in the wail of pure distress, now the discords of passion, now rising into the sweet but still sad music of patient resignation and self-sacrificing love. Well is it for the world that it is possible to understand without enduring, or the helpers would be few. As it is our lives are often saddened by the suffering that we cannot but share. No statement more untrue was ever uttered than that familiarity with suffering destroys the known capacity for sympathy in medical men. It is one of the many statements that are made regarding the members of the medical profession, their actions, their feelings and their motives, which could not be made of the character of the profession as a whole if the value of its work were duly appreciated." Some illustrations were then given of the value of medical work to the community. About twenty thousand medical men were in actual practice in Great Britain and Ireland. Taking into consideration acute diseases, accidents, the perils of childbirth, and diseases avoided by timely warning, it was probably under the mark to assume that each practitioner was instrumental in saving one life per week. If that was thought excessive let them take half that number, 25 lives a-year. A large number of practitioners demonstrably saved that number in childbirth only. But in the aggregate even that represented no less than half a million of deaths prevented every year. Was not this a service to the community before which many others, more highly honoured, pale? And to this must be added the far more numerous cases of disease prevented or relieved. Take again the progress of sanitary science which has added to the average longevity of the nation. To whom was this due? Sanitary work had passed so largely into special hands that it was almost forgotten that the movement was all but entirely due to their profession. Medical science had furnished the knowledge of the causes of disease which had shown the way for prevention. It was chiefly to the efforts of practitioners of medicine that they owed the stirring of public opinion by which the progress of sanitation had been rendered possible, and to-day in town and country over the face of England, in the form of crowded cities and in the fairer cottage homes, where Nature spreads her beauty over man's neglect, it was the members of their profession who

laboured untiringly in the cause, against the obstructions of ignorance, prejudice, and almost criminal apathy, obstruction too often successful until the neglected warning received some fearful emphasis, as by the present outbreak at Kidderminster, or the awful avalanche of death that had fallen on the city—of all in Europe the fairest and most foul. And in this labour, which was part of their ordinary work, their motive was pure benevolence. If the efforts they were at present making with their whole energy, were at once successful, one half of the practitioners of medicine must starve or find some other calling. Search where they would, in the wide scenes of the present or the narrowing vistas of the past, they would not find another instance of such a body of men making it a main and constant object of their lives to deprive themselves of half their livelihood. But the fact, of course, excited no surprise, because every man who entered the profession, in so doing, put self and self interest aside so far as his work was concerned, and placed the welfare of others before his own. To approach his work in any other spirit would be monstrous and intolerable if it were not inconceivable. And this, being a matter of course to themselves, was taken by the public as so much a matter of course to them, that it was almost ignored in the public estimate of medicine. Medicine was ranked the lowest of those callings that were by courtesy termed learned, and the highest social dignity conferred on her most honoured members was the lowest that could be offered.

It has been stated that many of the lives they preserved were worthless to the nation. But when every allowance was made for these, the residue of useful workers saved, whose existence was the nation's strength, was vast enough to startle the most indifferent, if assessed at the lowest estimate of its money worth. But the objection suggested a wider survey of their work. If they looked not at the individual or the nation, but at the race, what were they to say of the influence of the art of medicine? The question was part of another of the highest interest, but also of profound obscurity—the part played by disease in the physical progress or deterioration of the human race. The problem was one towards which many lines of discovery converged, and its elucidation would be their grandest crown. It was sometimes said that the influence of their art upon the race was to promote its deterioration, by saving from death many sufferers from constitutional maladies, or from actual disease many who possessed a morbid tendency, by whom that tendency was passed on to their offspring, and thus the area of liability was slowly widened. It had even been urged, and this repeatedly, that the influence of modern civilisation, and of the medical art as part of it, was to cause an infraction of the great law of the survival of the fittest. But fitness was always relative. If the conditions of life were so changed that the weaker might survive, the change in the conditions at once transmuted the unfitness that would be fatal to the fitness that secured survival. Whatever the influence of medicine in favouring the extension of morbid tendencies, it was simply an instrument of the moral force that increases with human progress, finds its repression in benevolence and philanthropy, and had become a recognisable factor in moulding the future of the race. But he thought it open to question whether the gloomy forebodings were justified. Their knowledge of the influence of heredity was constantly increasing, but this afforded no evidence that the influence itself was increasing. The facts on one side of the question were obtrusive, on the other inconspicuous. Even in families with strong predispositions it was the common rule for many more to escape than to suffer, in each generation. There was a constant tendency for the race to clear itself of disease, as a polluted river purifies itself as it flows. Were it not for this, civilised man would long ago have disappeared from the earth. And was it too much to hope that the growth of social wisdom and the progress of medical science might succeed in augmenting this influence to a power far greater and more effective than at present? In another province, that of zymotic disease, the promise of the future was still more distinct, and few could doubt that the investigations now in progress, and the discoveries already made, discount them as they might, would be followed by practical results of the first importance, although another element in the causation of these diseases, the strange fact of specific liability, remained as obscure as ever.

The lecturer then passed from the work of medicine to its rewards. These were small enough, as recompense was weighed in the common balance. A living; that was something. Bread, with cheese, perhaps, to each who wisely selected and patiently pursued his course of work, placing duty before pleasure, fitness before inclination; permitting no errant impulses, no distaste for dirty labour, to determine his career, or any fancy-fledged ambition to tempt him to a flight in which he could not hope to soar. They had other rewards, if they did not close their eyes to them. Much of their daily work might be drudgery, some might be repulsive, but the subjects that engaged their energies were of transcendent interest. The knowledge they had gained opened to them the world of nature. Human life, in its development and its decay, and the ever-varied phenomena of disease, presented problems of the highest interest. But greater still should be the consciousness of the character of the work they were doing. Failures must come, and, baffled in many a struggle, they might despair, but they should remember that the good they did was always greater than they could see. Their failures were obtrusive; their greatest triumphs almost imperceptible. "Nature effected a cure," it was often said, and said correctly, but it was certain that nature would often effect a death, were it not for the guiding, although often imperceptible, influence of medical treatment. Hundreds of persons were every day saved from disease without the fact being known either to themselves or to those who saved them. The choice of a sphere of work which the students made or ratified that day, would leaven their whole future life, and the knowledge that the world was better for each hour's labour might be and ought to be to them a constant and enduring satisfaction.

In conclusion the lecturer said, "There may be—nay there must be—many here to-day for whom the words of welcome with which I commenced should be changed to those of farewell. Your student life is almost over; the graver work for which you have been training is close at hand, and soon in town or country, upon sea or shore, you will have entered on it. Wherever your lot may be cast, it may be near, it may be far away, under strange stars, in unfamiliar scenes, your college looks to you—and will not look in vain— to keep her name unsullied, to make your place of study a passport among members of your calling, a guarantee of honour and trustworthiness. She looks to you—and will not look in vain—to carry on the high traditions of her past, to keep the torch she hands you brightly burning, to lighten the dark places of human life. She looks to you—and will not look in vain—to take your part, humble or high, in the great contest with disease and death, in the great work of gathering the knowledge that is power, and the wisdom that is life. Vast is the field of labour; no hand unwelcome, no effort to be spared. Fierce is the contest, unremitting; ever spring afresh the hydra-heads, and

for no moment can the sword be sheathed. But it is not for ever, not at least in present inequality. Who that reads, with thoughtful eye, the signs of this century's advance, can doubt the issue? Though still the storm clouds gather, and the sky is dark, yet far away, and slowly coming nearer, there is light. Not we, nor our successors for many generations yet to come, may see it, save in glimpses few and faint, but come it will, and you may aid its advent. You may lessen the present gloom, and you may hasten the dawn, which, now flushing only here and there a mountain-peak, shall surely broaden into perfect day."

INTRODUCTORY ADDRESS DELIVERED AT ST. GEORGE'S HOSPITAL.

By FRANCIS H. CHAMPNEYS, M.A., M.B. (Oxon), F.R.C.P.,

Assistant Obstetric Physician to the Hospital.

[Abstract].

THE lecture was addressed to the students, and touched on various subjects, devoting considerable space to midwifery as a mental and moral training. It opened with a "lost fable of Æsop," which the lecturer, as a graduate of a "lost medical school," thought a not inappropriate contribution. After a word of welcome to the new students, joined with the assurance, from the lecturer's personal experience, that before many days were past they would feel as if they had been at St. George's all their life, Dr. Champneys referred to Dr. Barclay and Mr. Cæsar Hawkins, both of whom had died within the year, alluding particularly to the cultivation of prognosis by the older school of physicians, a study much despised by the modern student, although of paramount importance. After enumerating the work and results of Mr. Cæsar Hawkins' life, he said: about his character there is but one opinion, and that is that he was a man of noble mind, whose strength of will and tenacity of purpose was only equalled by his sincerity and unselfishness. It is perhaps owing to the absence of self-seeking, which was one of his characteristics, that he died undecorated, except by the judgment of the highest court of appeal, that of his peers.

He then referred to the various motives for entering the medical profession. Some enter it because they are the sons of medical men, while, with others, the life of hard work and few relaxations which they have witnessed, acts as a deterrent. Others enter it because they are not allowed to become soldiers or sailors, and hope to join the army or navy as medical officers, with the view of healing the injuries which it was their earliest ambition to cause. Some join the profession from the love of it; and it is at least free from the class which selects one or two of the other learned professions simply with the view of gaining a certain status in society, and losing the identity and surroundings of the individual under the generic term of the profession to which he belongs. Among the motives which may influence men in choosing a profession, are included these two; first, the hope of being stamped or marked by the profession, and, secondly, the hope of leaving their stamp or mark upon it; and in proportion as we accomplish the second, we help to accomplish the first, both for ourselves and for others. The second of these objects depends partly on eminent skill, partly (as the world is constituted) on what is called success, but far more on the honour and uprightness, which perhaps attain their highest development in the best (not always the decorated) members of the medical profession. It is a pity that questions of national importance on the subject of health and disease should be at the mercy of class prejudice or vulgar popular oratory, but this seems in a fair way to be remedied. On the whole, a learned, honourable and chivalrous doctor is probably not less honoured and valued than a learned, honourable, and chivalrous lawyer or clergyman. For whose approval should we work? The world is the assembly of those least competent to judge; but, laying aside the highest appeal, we should make up our minds to act in such a way as to earn our own approval, to win, in any reasonable way, the approval of our peers, and to trouble ourselves but little beyond this. If we reverse this order, we may win applause in the lowest court, but we shall jeopardise our standing in the court of our peers, and shall inevitably lose our self-respect. As a money-making concern, medicine is inferior to business, and fortunes made nominally by medicine are often, in fact, the result of a nucleus judiciously manipulated in the neighbourhood of Capel Court. It speaks volumes for the interest and attractiveness of the profession, that our ranks are constantly swelling, and swelling with men whose education and social status appear to improve every year, in spite of the fact that its members are comparatively poor. Professional advertising is an abuse against which every member of the profession should set his face. There are three things (it has been said) which a poor man cannot afford to keep: pride, a horse, and a conscience. All undoubtedly involve an outlay, or, in other words, a loss of money; but the first and the third must be kept at all price, and the second acquired when necessary. The lecturer then gave hints to the students as to the mode of pursuing their work, warning them against premature specialisation, such as the exclusive study of microscopy. He then described the "microscopical man," the "practical man," and the "roi-fainéant." He advised them to play football, but regard dancing with suspicion.

"I should not feel that I had discharged my duty," he continued, "did I not devote a few words to the department of work to which I am more particularly attached; and, first, I would remind you all that the various licensing bodies, having a short time ago succeeded in grasping the fact in elementary statics, that a body propped on two legs is almost necessarily in a state of unstable equilibrium, have added to the two previous legs of medicine and surgery the third leg of midwifery. The result is, on one hand, a great addition to the stability of medical education, which is now tripod; but, from your point of view, it amounts to the fact that it is now practically impossible to gain possession of any respectable diploma without the acquisition of a tolerable knowledge of midwifery and the diseases of women. Whatever your line of practice may hereafter be, you cannot avoid it. Nor, indeed, is it right that any practitioner should be ignorant of any of these subjects, neglect of which is apt to be followed by grotesque and egregious blunders, which may prove disastrous to him who makes them. In general practice you will find that this knowledge, almost more than any other, will stand you in good stead; and early in your career you may have cause to bless the nights which you spent, perhaps unwillingly, surrounded maybe by squalor, alcohol, and the heteroptera. As a subject for instruction, I know none which surpasses midwifery; its problems are largely exact, involving, as they do, mechanical principles which can be actually demonstrated by diagrams and models; and in practice, diagnosis and prognosis are quickly illustrated by the event. The nine months' cycle of pregnancy carries us into one of the most interesting regions, in which physiology is so modified

as to border on, and therefore to illustrate, pathology; while in embryology (with part of which we necessarily deal), we are brought face to face with the most vitally interesting speculations. In the sub-department of the diseases of women, our interests are different; this is still in its infancy, and the greatest discoveries lie almost beneath our eyes—if we could only see. This subject, the paramount interest of which lies with the investigator, appeals to us, therefore, in a different way.

"As a moral training, and as a training for practice, midwifery seems to me again most valuable. The student or the practitioner is brought into close and intimate relation with his patient, and he learns to be patient with her—not to be brusque with her, but considerate; even to endure reproaches unjustly uttered during paroxysms of agony, knowing that a patient in pain is a patient insane. To be patient too in waiting. No sooner will his patient be rid of her troubles than her gratitude will make up, and more than make up, for any inconsiderate utterances. And here I must testify to the patience and kindness of students, often the last to lay claim to these, or, indeed, to any other virtues, which has repeatedly instructed me. Not once or twice have I known the fire lit, food bought and cooked, and the tenderest care displayed in the maternity department by students to those from whom they had nothing in the world to expect. In the course of your practice, you will probably have to treat some of the poorest, and you may have to treat some of the highest. You may think it will be difficult to be ready with the appropriate manners for each. Not at all; it would, of course, be an error to treat a duchess like a charwoman, but there can be no harm in treating every charwoman like a duchess, and you will be right all round.

"To be a good practitioner you must also have 'clean hands (antiseptically as well as ethically) and a pure heart.' And while recognising the fact that Nature generally manages her own affairs best in her own way, and that your duty in most cases is to watch how she does it, you must be minutely acquainted with her ways, or you will not detect the first beginnings of mischief, and will not be prepared to help her when she is untrue to herself. For this reason the study of the normal anatomy and physiology of pregnancy, labour, and lying-in is of paramount importance, and cannot be too conscientiously pursued. Indeed, without this, your understanding of abnormal conditions and processes will necessarily be lamentably inadequate."

AN ADDRESS, DELIVERED AT THE OPENING OF THE WINTER SESSION AT QUEEN'S COLLEGE, BIRMINGHAM.

By JAMES SAWYER, M.D. Lond., F.R.C.P.

President of the Clinical Board, Senior Physician to the Queen's Hospital, and Professor in the College.

I HAVE the honour to address this assembly of the friends and of the students of Queen's College, upon the occasion of our formal inauguration of a new academical year. I am sure we may congratulate ourselves, with unqualified confidence, upon the continued growth and prosperity of the Birmingham medical school, and particularly upon the progress and promise of this college. As an old student of Queen's College, I am proud to note that my *alma mater* was never sounder in her constitution, nor stronger in public and professional confidence. For many years our college has pursued, with unbroken success, a broad and enlightened educational and administrative policy. As the central home and authority of the Birmingham medical school, our college has proved that that school can only be enduringly strong while it is inclusive and united. The college has sought, with much and signal success, to draw within and around it, in individuals and in institutions, all that is best in the teaching strength of our great community. In its wise coalescence with the Sydenham College, in its intimate connections with the General and the Queen's Hospitals through the Clinical Board, in its well organised dental department, in its reciprocal arrangements with the Mason Science College, by which our medical students have access to the unsurpassed educational advantages of that great institution, and in the extension and specialisation of its own teaching, the Queen's College at Birmingham has so developed and consolidated its resources that it stands confessed to-day, without question, and beyond cavil, one of the largest, one of the most advanced, and one of the best equipped schools of medicine in this or in any other country.

Examination is the dominant "note" of our current medical instruction. Two or three generations ago the leading principle of medical education was imitation. Now the student has set before him examinations he has to pass; then the apprentice had before him a master to imitate. Now our teaching is professorial, and to a class; then it was more personal, and to an individual. There is much that is good, doubtless, in our present system of medical education; but I am afraid we have scarcely preserved all that was good in the system we have set aside. I daresay we have been gaining in professional knowledge. Have we not been losing somewhat in professional wisdom? We have been growing in scientific precision. Have we not sometimes been loosening, and are we not in danger of losing, some of our best traditions?

I have been asked to say a few words especially addressed to the medical students who are here this evening, and who are about to begin or to resume their professional studies. To them I say—fellow students, you come to our school to get knowledge. It will not, I am sure, be the fault of our school if each of you do not get in it, in fair proportion, the knowledge it offers you. In our laboratories, and in our books, in our museums and in our lecture-rooms, and in our hospital wards and mortuaries, your several teachers, in their expositions and in their practice of the sciences and arts they profess, will continue to submit to your senses—to your eyes and to your ears, to your hands, to your noses, and to your mouths—an endless store of objective facts in the sciences and arts of medicine; and in each of you it will depend upon himself—upon your capacity, and upon the motives which guide your conduct—how much or how little of this objective knowledge you shall hold and make your own.

I am not going to urge you to seek knowledge for its own sake. Knowledge, like money, health, justice, truth, and virtue, is not an end in itself, however startling this fact may be when you first apprehend it. Knowledge, in its final appraisement, is only an intermediary means, which many good people are in the habit of mistaking for an end. Now, why do you come to seek the knowledge, the particular knowledge, which we offer here? Because you want to become members of the great profession of medicine; and you are probably impelled to seek entrance into our profession for no single or separate reason alone, but rather as the resultant of a variety of motives, amongst which, scientific interest, honourable pursuit of worldly

means, and pursuit of distinction, are probably the most powerful.

Now I am afraid many of you are apt to imagine, as most people do when they begin preparation for a particular career in practical business or professional life, that all you want now, that all you need seek, as students, is knowledge. You have heard very often that knowledge is power, and you are prone to think that if you have knowledge all things else will be added unto you. But surely this is not so. Knowledge is not power ; but only its material. Knowledge is only power when wisdom points its employment. Even now and here, when and whither you have come to seek and find knowledge, you must seek and find wisdom too, if you would grow in the skill and grace which the life you have chosen requires of you. "Knowledge comes, but wisdom lingers." As a psychological product, wisdom is infinitely more elaborate than knowledge. It is knowledge kneaded with exquisite complexity into every phase of your consciousness. Wisdom is knowledge which patient experience has intimately blended with your emotions and with your desires, with your volitions, and with your beliefs. It is knowledge polished and finished, qualified and refined, tested and checked, proved and guided, by every pleasure which has thrilled you, by every pain which has cast you down, by every consideration you have felt of fitness and of prudence, of utility and of duty.

The systematic knowledge we offer you here in this medical school, in our instruction in the sciences and arts of medicine, is a matter-of-fact knowledge ; it is a duly arranged aggregate of objective experience, which we present, through your senses, to your minds. Take care, take most watchful care, that you get a clear and certain perception of every fact which is placed before your understanding ; for clearness of reproduction is impossible without previous clearness of perception. But the wisdom I ask you to seek, even now, is more than knowledge ; it is far different. When you have begun to apply knowledge, in thought and action, to the best ends and true purposes of life, you have begun to be wise. When your self-love, your search after your own happiness, has been tempered by knowledge into prudence, and when your sympathy for others has been tempered by knowledge into duty, you have begun to be wise, for you have been putting down your pride, learning the love of mercy, and growing in the power to judge and act rightly. But, you may say, tell us how to do so much; how to get knowledge, to learn prudence and duty, and to be wise to do rightly. I answer, make it your business, even now, while you study to get knowledge in this college and in our hospitals, to study also the words, the acts, and the lives of some of those of our profession who, without trifling with truth, and without pliancy of principle, have achieved success, and honourable competence, and the love and confidence of their brethren, and so you shall learn how to prepare for professional life, as well as for professional diplomas.

Medical Times and Gazette.

SATURDAY, OCTOBER 4, 1884.

An unusually large gathering of past students met in the Great Hall of St. Bartholomew's Hospital on Wednesday evening to keep up the old established custom of dining together. Mr. Luther Holden presided, and in all there were about 150 present. Sir James Paget, in proposing the health of the chairman in a most felicitous speech, alluded to the fact of his close friendship with him during the past half century. After dinner the company adjourned to the library where, for the first time, the fragrant weed was not forbidden.

The winter session at Guy's Hospital was duly inaugurated on Wednesday, October 1st, by a *conversazione* held in some of the large medical wards and in the museums and class-rooms. A very large area being thus devoted to the purpose, the somewhat inconvenient crowding which marked the same event last year was avoided. The decorations of the wards, if somewhat sombre in tone, were arranged in excellent taste and formed a picturesque background to the tables upon which the objects of interest were displayed. A very considerable exhibit of surgical, microscopical and electrical instruments formed the nucleus of a miscellaneous collection of articles of greater or lesser interest. Of the former class may be mentioned Hearson's Thermostatic Nurse, which excited much curiosity. The prizes and certificates were distributed to their respective winners by the Treasurer, who in a subsequent speech gave a somewhat gloomy account of the state of the hospital treasury. A feeling reference was made by Dr. Wilks to the loss which the hospital had sustained by the death of Dr. Hilton Fagge, since the last opening-day, and to the influence for good which his example and character had exercised upon the Medical School.

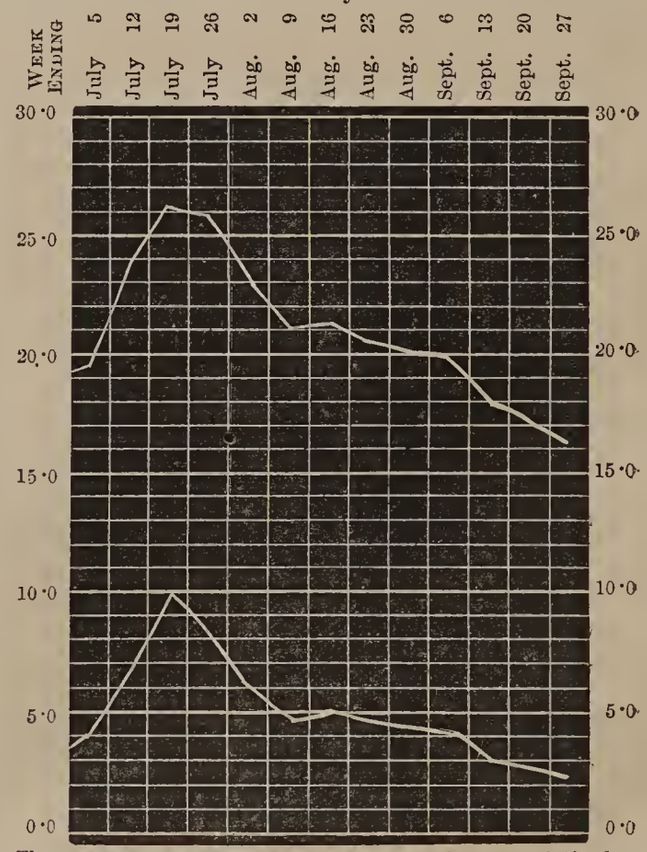
The opening of the Medical Session at King's College followed the time-honoured lines of distribution of prizes, introductory address, and dinner of old students in the evening. The meeting in the afternoon was well attended, new students and old gathering in force to give welcome to the new Principal of the College, Dr. Wace, who had been invited to give the address. The Dean of the department, Dr. Curnow, having presented the prizemen and scholars, the serious business of the address commenced. Dr. Wace justified his position by reference to the strong personal ties which had bound him to the medical profession through his friendship with the late Dr. Anstie. He then passed on to make reference to the changes which had taken place in the social status of various members of the College staff, the baronetcies conferred on Sir William Bowman and Sir Joseph Lister, and the transference of the late principal to the important post of Metropolitan of Sydney. The advantages of the union of the medical school with the other departments of work in the College were touched upon briefly and then the address turned to the work of medicine in recent times, the great strides which had taken place since Harvey's famed discovery in the last century, and the work of modern times in the hands of Koch, Klein, Pasteur and Lister. A happy allusion to the work of Ferrier, "touching the very springs of mental action in the brain," was greeted with much applause. The line of argument then turned to the need of "sympathy" in medicine and to the cultivation of those qualities which should prevent moral as

well as intellectual failures. Dr. Wace very naïvely remarked that he had come to the conclusion that brains were very common and very cheap articles, that there existed any amount of them running to waste about the Strand at the present time, and by a well chosen simile of the various forms of knives, those combining both handles and blades being the most serviceable, he pressed home the importance of not neglecting the healthy frame of mind while caring for the healthy state of the body. Both conditions are to be cultivated, the former no less than the latter. Amid a sympathetic silence he concluded by a touching reference to the illness of Dr. Baxter, "a typical example of a King's College man." The address, which had throughout commanded the attention of those present, received the customary vote of thanks, moved by Sir Richard Wilbraham and seconded by Sir William Bowman. In the evening a very well attended dinner of Old King's College Hospital students was held at Limmer's Hotel, Sir William Bowman presiding; he was supported by the various members of the staff and numerous old students, Surgeon-General Partridge, Dr. Buzzard, Dr. George Johnson, Dr. Bartrum, Professor Wood, and others, proposing and responding to the various toasts. It is satisfactory to learn that the new medical session thus happily inaugurated already shows signs of a satisfactory accession of new students.

We publish this week some more letters on Educational Over-pressure, and we hope to publish a further series in our next issue. We again repeat that the subject is too serious a one to be allowed to be burked by official optimism, and we have reason to believe that some of our leading politicians outside the Education Department are not altogether disinclined for an enquiry such as we have advocated. It lies mainly with the medical profession, and especially with those members of it who have large experience of children's ailments, to bring forward the evidence that will convince our leading statesmen of the necessity for an investigation. The lips of the teachers will be necessarily sealed until Government bids them speak, but we are glad to see one of their organs, the *Educational Times*, cordially supporting our suggestion. It holds that "it is quite time that the effect of the educational arrangements on the general health should be investigated by professional and disciplined enquirers, and be reported on with judicial impartiality." It cordially supports Dr. Crichton Browne's proposal to institute a sanitary and medical inspection of schools, a periodical measurement and medical examination of the children; while it fully realizes the importance of medical opinion in connection with the subject. "The medical profession," it says, "may render great service to education at the present time by collecting observations on the question of the effect of the present educational arrangements on the general health; but it should at first aim simply at tracing the nature and extent of the alleged evils, and the causes to which they are immediately due, leaving out of the question, for the present, the ultimate causes and the apportioning of blame between the different bodies who are responsible for the educational administration."

It is not only in England that the subject is attracting attention. In the section of Psychological Medicine, at the recent International Medical Congress, a report of which we publish in another column, Dr. Kjellberg, of Upsala, gave a startling description of the effects of excessive brainwork on the health of school children. The symptoms he had noticed were much the same as those met with in the out-patient rooms of children's hospitals in London and our large towns, viz., headache, sleeplessness, intellectual torpor, change in character, muscular weakness and spasm, culminating in hallucinations, and very often in sudden loss of consciousness. Statistics have been collected in the schools of Switzerland with the result that the cases of over-pressure are found to be so numerous that the cantonal governments are considering how best to modify a state of things so threatening. In most parts of the Continent, and especially in the Swiss republic, education has reached a much higher state of development than with us, and the results may be expected to be more striking. Let us take warning in time, and if possible seek to forestall the appearance of such startling effects as those described by Dr. Kjellberg. It would be deplorable if our efforts to get on in the world should result only in a nation characterized by "physical and intellectual torpor."

The deaths in London last week, the last of the third quarter, were 159 below the corrected average, and gave a rate of 16·1 per 1,000, a lower rate than has been recorded for three years. The deaths attributed to zymotic diseases numbered 190 in all, including 10 from small-pox, or 4 more than there were last week. Of the other infectious diseases, measles only reckoned 12 victims instead of 18 in the previous



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the third quarter of the present year.

week, scarlet fever had 26, or 44 less than the number that past experience would have justified us in expecting. Whooping cough is credited with 15, and diphtheria with 14 victims. The deaths from enteric fever were 18 as compared with 27 in the previous week. Amongst the non-zymotic, but still we would hope preventable, causes we notice that the deaths of 8 infants under one year in London are attributed to suffocation. Only three of the 28 great towns show a lower death-rate than London, viz.: Norwich, Brighton, and Huddersfield. The eight principal towns in Scotland cannot show nearly such a low mortality as London does, but they have a clean bill of health in the matter of small-pox, and the deaths from diphtheria in all taken together just equal those in London alone.

Dublin has been *en fête* this week, not less than two Congresses having assembled in that hospitable city. One of these was the Library Association of the United Kingdom, which assembled on Tuesday in one of the Halls of Trinity College, under the presidency of Dr. John Kells Ingram, Librarian of the College. The other was the Sanitary Congress, which met on the same day, under the presidency of Sir Robert Rawlinson, C.B. The first general meeting of the Sanitary Institute of Great Britain took place in the Lecture Theatre of the Royal Dublin Society, at 8 p.m., when the president, Sir Robert Rawlinson, delivered an inaugural address.

He alluded at the commencement, as in duty bound, to the improvements that had been wrought in the sanitary state of Dublin during the last few years on which matter his knowledge was of course most accurate, seeing that he was on a Royal Commission appointed in 1879 to enquire into the whole subject. The purification of the Liffey, however, he said, still remained to be settled, and here, as in the case of the Thames, he is a strong advocate of taking the sewage out to sea, instead of wasting money in trying to get a little out of it, or, as he said, spending thirty shillings in order to earn twenty. One of the great objects of the sanitarian of the present day he declared to be to check the prevalent sanitary ignorance, and under this head he referred to the enormous amount of money that had recently been spent in the South of Europe, as well as inconvenience caused, in the vain attempt to check the spread of cholera by quarantine. The proper remedies against that disease consisted in improved ventilation and daylight, a good supply of pure water and good sewerage and scavenging.

On Wednesday, Sec. 1, "Public Health," was opened with a paper by Dr. Grimshaw, the Registrar-General for Ireland, on the statistical measures of the Health Communities. The first point he dealt with was the fact that the death-rate did not by any means represent the amount of sickness in a district, some diseases, such as influenza, having no death-rate at all, so that as a means of estimating the amount of sickness in a district it was not always very reliable. Unfortunately, however, no other method had yet been discovered which would furnish results that could be used by the benefit societies. A death-rate of 40 per 1,000 did not necessarily mean that the place was twice as unhealthy as one which had a rate of 20 per 1,000; it indicated that the people of the latter had a more robust constitution, but nothing else. It was amongst people employed at unhealthy occupations, or in places where there was a large proportion of the very young or the very old that a high death-rate would always be found. A low infantile death-rate might be found with a high rate of mortality, and indeed that was actually the case in Dublin, the reverse of what was found in England. The explanation of these facts he thought lay partly in the emigration of the healthier adults from Ireland, and partly in the fact that in England mothers were much more liable to go out to work and leave their children at home.

On Thursday morning, Mr. C. P. Cotton, C.E., was to open Section 2 — "Engineering and Architecture"—with an address, and on Friday morning, Dr. Charles A. Cameron, Medical Officer of Health for Dublin, was to inaugurate Section 3 — "Chemistry, Meteorology and Geology" — in a similar manner. On Friday evening it was intended that Dr. Alfred Carpenter should deliver a closing lecture to the Congress, to which working-men were specially invited. In each section there was a good promise of papers and discussions.

The festive aspect of the Congress was not overlooked. On Tuesday there was a Public Luncheon. On Wednesday evening the Right Hon. the Lord Mayor and the Lady Mayoress entertained the members and a large number of citizens at a *conversazione* at the Mansion House, Dawson Street. On Thursday there was a banquet at the Shelbourne Hotel, at which His Excellency the Lord Lieutenant was present. To-day (Saturday) is devoted to excursions, and in the evening a Hospital Fête is to take place at the Agricultural Buildings, Ball's Bridge.

And this leads us to say a word about the most interesting feature of the Congress—the Sanitary or Health Exhibition, which is being held in connection with it, and which will remain open for three weeks. The Health Exhibition at Ball's Bridge was formally opened by the Lord Mayor, on Tuesday afternoon. It is under the auspices of the Sanitary Institute, and in it the latest improvements in sanitary appliances are exhibited and their utility practically tested. There was a large attendance at the opening ceremony, when also the awards of the judges were made. The judges are H. C. Bartlett, Ph.D., F.C.S.; Professor W. H. Corfield, M.D.; Professor de Chaumont, M.D.; W. Eassie, C.E.; Rogers Field, B.A.; J. W. Peggs, M.A.; H. S. Snell, Ernest Turner, Henry Law, and Dr. Louis Parkes.

Dr. William Moore, President of the King and Queen's College of Physicians in Ireland, has been appointed a Justice of the Peace by the Right Honourable the Lord Chancellor of Ireland.

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Miss Mary Wardell's Home for Scarlet Fever Convalescents, which was opened by Royalty in July, will be ready to receive its inmates in the course of a few days. We recently had an opportunity of quietly inspecting the home, and examining the very complete arrangements made for the health and comfort of the patients, all of which bear testimony to the anxious care and thought, as well as to the funds, that have been spent upon them. The home stands on the very top of the high ground north of the village of Edgware, and, in the language of the estate agent, commands extensive views of the whole surrounding country. Built originally a year or two ago for a private residence, it has been adapted with great skill to meet the requirements of a convalescent hospital, while retaining much that reminds one of a country house. The drawing-room has been converted into a day-room for the poorer patients, whose interests in such a home as this must necessarily be regarded as paramount, and we are sure that they could not wish for a more cheerful one in which to complete their peeling. The other rooms on this floor are devoted to the private patients and the offices. On the second and third floors are the bed-rooms for both classes of patients, all of them airy, lofty, and well-lighted rooms, distinguished from one another by bearing each the name of one of the Committee or Medical Council—Alcock, Fayrer, Stewart, Broadbent, Squire, Billing, Bevan and others. A large room on the first floor, lighted from above, and originally destined for a billiard table, has been fitted up as a play-room, and will soon resound, we hope, with the pattering feet and happy laughter of children, in place of the click of the balls and tramp around the green cloth, which were the sounds intended for it by the builder. Below it is the kitchen. The bath-rooms, with their large and little baths, remind one of the Three Bears, and close by, but cut off from the house by a ventilated passage, are rows of earth-closets, with a lift, by means of which the soil can be removed direct to the garden. The bath water and other slops are conducted into the grounds and distributed by an arrangement of drains to the subsoil. All the sanitary arrangements have been carried out under the superintendence of Mr. Rogers Field, and a plentiful water supply has been obtained from the Colne Valley Company at a cost of 250*l*. The grounds, which may be considered as one of the most important features of a home of this sort, are as extensive as need be, and will furnish many of the children with such a playground as they seldom get a chance of disporting themselves in. We may add that the home is intended exclusively for women and children, and that the scheme which Miss Mary Wardell has made her life-work cannot be considered complete until a home has been provided near by for adult males. Funds, however, are as yet not forthcoming for this extension; indeed, they are much needed to carry on the present home with due efficiency.

At the meeting of the Metropolitan Asylums' Board, on Saturday, Messrs. Bull and Son's tender of £79,000 for building the proposed Convalescent Scarlet Fever Asylum, at Winchmore Hill, was, after some discussion, definitely accepted, and it is to be hoped that the work will be commenced without delay. It must be remembered that this new asylum is only an instalment of the works which must be undertaken if the recommendations of the Royal Commission on Infectious Asylums in the Metropolis are to be carried out. It is estimated that between 25,000 and 30,000 persons are annually attacked by scarlet fever in the metropolis, and for the vast majority of these cases accommodation must be provided by the Asylums' Board, if proper isolation is to be secured. Each case must be kept in hospital at least eight weeks if it is not to prove a disseminator of the disease when discharged, and from this, by an easy calculation, it will be seen that the beds available for scarlet fever cases in the institutions of the Asylums' Board ought not to be placed at a lower figure than 3,000. Even when the new asylum with its 500 beds is opened, the Board will not have more than 1,500 beds for scarlet fever, or half the estimate. There will still remain at large in the metropolis an average of 1,500 scattered cases of the disease, for the most part inefficiently isolated and inadequately treated. As new blocks of artisans' dwellings are erected, in most of which cases of scarlet fever are not allowed to remain, the call on the Board's resources will still further increase. The prospect to the ratepayers is appalling; but speaking of London as a whole, it only means taking out of one pocket to put it into the other.

Everyone will be glad to hear that the plumbers have at length been roused to a sense of the new responsibilities thrown upon them by the increasing complexity of our sanitary appliances. It was high time, for almost everybody has a tale to tell of disease, or at any rate discomfort, caused by the disgraceful neglect or ignorance of some worker in lead. The plumber bears pretty much the same relation to one branch of preventive medicine that the chemist holds to one branch of therapeutics; but while we take care to examine and certify every drug compounder, we have no guarantee whatever of the knowledge or competency of the plumber we employ. His work, it is true, is open to inspection, which is more than can be said of the work of the chemist; but inspection is very generally neglected, and even where it is carried out, it proves too often little but a solemn farce. The Plumbers' Company have at length taken the matter up, and will probably hold a conference at the Health Exhibition in the middle of October, in combination with the National Health Society and the Sanitary Institute, with the view of discussing the available remedies for the present unsatisfactory conditions. The establishment of boards of examiners of plumbers' work, the registration of journeymen plumbers, and the advisability of applying to Parliament for the extension of certain Sanitary Acts, will be among the subjects of debate.

It is always well to see ourselves as others see us, though sometimes it is possible we have a much quicker eye for our own shortcomings than any of our critics. This is what Mr. Thiselton Dyer—who by the way is not altogether a layman in relation to medicine—said in the course of his address to the

Pharmaceutical students on Wednesday. "I have a strong suspicion that it is the mediæval flavour, if I may so express it, that hangs about our pharmacy which has of late engendered a considerable scepticism about the action of drugs altogether. And this is by no means a popular heresy only, but it is an attitude shared by many very capable members of the medical profession. With such men I am afraid the interest of a case rather seems to stop with what they call 'the confirmation of the diagnosis.' The practical and common-sense world will, however, always demand that the medical art shall go further than this. I am bound to say I am entirely of the same opinion. It is for this reason that I am anxious to see our list of first-class drugs—such as quinine and ipecacuanha—very much increased. I can conceive an ideal therapeutics, in which we should have drugs in our *répertoire* which would stimulate or inhibit every function of the organism. An unfortunate obstacle comes, however, in the way in the shape of the fact that there is in this country surprisingly little disposition to engage in the investigation of new remedies. The study of rational therapeutics can hardly be said to exist; at the most it is attacked in a disconnected or spasmodic fashion by men who have too much else to do." We cannot help thinking that Mr. Dyer's reading of the phrase "rational therapeutics" is somewhat different from that attached to it by the leading minds in the medical profession.

The new rules and regulations for the future management of the North West London Hospital, which have been drawn up with the aid of Sir Spencer Wells, Mr. Marshall, and Mr. Ernest Hart, were submitted to a special general meeting of the Governors on Tuesday last, and at once adopted. With this, a disagreeable incident in the history of the hospital terminates, one that seriously crippled its usefulness and did not reflect credit on any of the parties concerned. Let us hope that a prosperous career is in store for it.

A Royal Warrant is about to be issued by the War Office authorities, changing the designation of the Army Medical Department and the Army Hospital Corps to the Medical Staff and Medical Staff Corps respectively. The alteration will date from October 1st, a date we hope of the best augury for the future prosperity of the department.

Dr. Sykes's elaborate report for the Borough of Portsmouth for 1883 has lately been placed in our hands. The total number of deaths was 2,446, giving a death-rate of 18·6, which is unusually low, though not the lowest on record. Southsea, as usual, is the healthiest part of the borough. As regards infectious diseases, there has been a wonderful immunity; it is true there have been a few cases of small-pox, the disease having been introduced on three separate occasions, but on only one of these did it spread at all, and none of the cases proved fatal. The epidemic of scarlet fever which Dr. Sykes foretold last year, did not make its appearance, and the borough has now for seven years enjoyed a comparative immunity from that disease. Enteric fever seems to be the only one of the preventable diseases which has been at all rife throughout the year, and there is no denying that 93 deaths from this disease reflects unfavourably on the sanitary arrangements. A satisfactory scheme seems to be on hand for the disposal of the sewage, and only awaits a little more money before it is put into execution. As last year, so this, Dr. Sykes is able to report good progress in the matter of house drainage, and he says that in some parts of the borough whole rows of houses may now be seen provided with efficient ventilation, shafts, and intercepting arrangements. The compulsory notification of infectious diseases has been introduced during the year, and Dr. Sykes anticipates great results from it when it shall have been got into thorough working order. He points to the opening of the Milton Hospital for the isolation and treatment of infectious diseases as of immense importance in preventing the spread of infectious diseases. There is an elaborate chart, showing the number of fatal cases per week from infectious diseases and from disease of the respiratory organs throughout the year, and a map of Portsmouth, marking the houses where cases of enteric fever, diphtheria, and scarlet fever have occurred, or at any rate come under the notice of the Sanitary Authority during the year.

The latest reports from Italy record, on the whole, a diminution, though with slight fluctuations, in the cholera at Naples. Wednesday's bulletin noted 136 new cases and 57 deaths, including, however, 26 who were already under treatment. At Genoa, 52 cases with 30 deaths were reported, a rather high rate of mortality it will be admitted, the total number of cases in the province of Genoa amounting to 102, with 53 deaths. The returns from the other infected provinces show a decided diminution of the epidemic. A contemporary announces that between August 21st and September 26th there occurred in all 10,486 cases, with 5,548 deaths.

THE OCTOBER ORATIONS.

Everyone must admit that the method of opening the Medical Session which prevails at the majority of the London Hospitals is not altogether satisfactory. The most that can be said for it, is that it is more satisfactory than the method which prevails at the minority. We should be sorry to see the introductory addresses given up until some one has invented a ceremonial of equal impressiveness and more vitality. At present, the writing of the inaugural address often falls to a man who undertakes it more as an irksome duty than as a privilege. He is conscious of having little or nothing to say, and it bores him to say it, or rather to write it. In such a case he can hardly expect his audience of all ages to be otherwise than bored by listening to it. Even the lecturer who feels that he has something to say, and takes some pleasure in saying it, is not in a much happier predicament. If he addresses himself, as he is more or less bound to do, to the freshmen the chances are that he fails to interest his older hearers; while, if he writes for the senior students for the profession and for the public, what he says will certainly be above the heads of the

newly entered students. It needs little short of genius to combine these two incompatible functions. It is easy for any one who has passed through the medical curriculum to give valuable words of advice to those who are just entering upon it. It is not difficult for a man of talent to say something original on the thousand and one matters of pregnant medical interest which will be worth the attention of the profession. But to deal with commonplaces in a way that shall interest both students and practitioners is only within the power of a man who combines the highest gifts of thought and expression. Such a man is not often found amongst the class from which inaugural lecturers are usually chosen. Their *mêtier* is an entirely different one, and to expect them to deal with platitudes with the golden mouth of a trained and polished speaker is to hope to get a square peg into a round hole. Round pegs which will fit that particular orifice are few in number, and the attempt to find a dozen every year to fulfil the necessities of all the hospitals would meet with lamentable failure. To us the moral is obvious. If we cannot amalgamate the medical schools for the purposes of education, as we have more than once advocated, it should at least be possible to amalgamate them one day in the year for the purposes of an introductory lecture. We can imagine no ceremonial which would more happily impress the new students with the importance of the step they have taken, or make them more vividly realize the magnitude and importance of a medical education than a monster meeting, presided over and addressed by one of the great masters of thought and eloquence in our own and other callings. They would remember such a day as one of the great landmarks in their lives, and the burning words of a Gladstone, a Liddon, a Huxley, or a Paget would rouse in them thoughts and emotions, and leave behind them memories, such as can hardly be expected of more than a tithe of the addresses now delivered. Why can it not be done?

But it is time to turn from these speculations to the more special subject of this article—the actual addresses delivered on Wednesday last. Several of these we publish in full or in abstract in the present number, and a glance at them will be sufficient to show that scarcely one of them satisfactorily fulfils the two functions of an inaugural address as stated above. The high-toned and eminently sensible address delivered at St. Thomas's Hospital by Sir Risdon Bennett is one which will be read throughout the profession with the greatest interest and appreciation; but its author would probably admit that, with the exception of scattered sentences, it is entirely above the heads of the raw boys, who have come fresh from the schoolroom to join the great profession of Medicine. Dr. Gowers, in the almost too eloquent address which he delivered at University College, probably succeeded in interesting both classes of his hearers better than Sir Risdon Bennett, but it must have needed a very clever and thoughtful student, even amongst those to whom he was bidding farewell, to have followed him appreciatingly into his interesting speculations on the apparent opposition between the medical art and the Darwinian doctrine. Dr. Finlay, at the Middlesex Hospital, gave most valuable advice to the students, and his clear account of the triumphs of preventive medicine can hardly have failed to interest the more advanced of the freshmen. But there are few topics in the domain of medical science which can be made intelligible to the juniors, and yet be treated in such a way as to interest the seniors. What success Dr. Finlay achieved in this respect he owed both to his happy choice of a subject and to his lucid mode of dealing with it. At the Westminster Hospital Dr. Hughes Bennett delivered an address eminently adapted to his audience, entitled "The study of Medicine as a source of intellectual gratification as well as of practical utility." He sketched with a faithful pen the disadvantages of the calling of Medicine as compared with other professions, and then in words, which we trust have deeply stamped themselves upon the minds of his hearers, showed the compensating advantages—its purity and dignity as a science, the fascination of searching for and acquiring information, the opportunity it gives for the culture of all the faculties, for the play of the imagination, and for the display of originality or invention. "There is probably no human pleasure," said Dr. Bennett, "which is so permanent, or which reaches so lofty a degree, as that which emanates from an ardent and successful career in scientific research and discovery." And lest it should seem that he was painting a prospect which could only be enjoyed by the chosen few, he went on to illustrate the fact that it is quite an error to suppose that vast intellect and learning are necessary to appreciate and profit by a study of the phenomena of Nature. Medicine, in short, though the most contemptible of trades was the most noble of professions. All this, it is true, has been said before, but it is a theme which will bear repetition, especially when treated as Dr. Bennett treated it. Dr. Champneys' lecture at St. George's Hospital was a good example of the students' address pure and simple. It abounded in happy points and was replete with excellent advice. The address delivered by Dr. Sawyer, at Birmingham, short as it is, contains sentences which at once bring it up to, if not above, the level of the longer addresses. Take these for instance,—"Knowledge is not power; but only its material. Knowledge is only power when wisdom points its employment." "Wisdom is knowledge which patient experience has intimately blended with your emotions and with your desires, with your volitions, and with your beliefs. It is knowledge polished and finished, qualified and refined, tested and checked, proved and guided, by every pleasure which has thrilled you, by every pain which has cast you down, by every consideration you have felt of fitness and of prudence, of utility and of duty." In these extracts we seem to hear the man of the world rather than the man of science; but that is the fault of the men of science and not of Dr. Sawyer. From the Rev. Dr. Wace, who delivered an admirable address at King's College on the 1st, we naturally expected considerations of that sort, and we got them. The fault of the majority of introductory addresses is the want of the "human" element, and we are glad to point to two addresses this year which are distinctively informed by it.

PHOSPHORUS IN THE TREATMENT OF TUBERCULAR DISEASE.

Tubercular meningitis is generally admitted to be one of the most hopeless of the diseases which a physician can be called upon to treat. This, doubtless, is the explanation of the fact—which comes also as a somewhat humiliating commentary on the present limitation of our knowledge and the instability of our theories as to the cause and nature of the malady—that the recommendation of a certain preparation of phosphorus, made a short time since by a correspondent of one of our contemporaries, led, in the course of two or three days only, to the exhaustion of the whole of the stock then in the hands of the manufacturers as well as of the retail dealers. The value of some combinations of phosphorus, of the hypophosphites especially, has been lauded by several competent observers, in the treatment of pulmonary and other affections which were believed to own a tubercular origin, although we experience some difficulty in assigning its just value to the specific adjective in this connection, inasmuch as one of the advocates of the hypophosphite treatment has recently stated his belief that the drug is only of real curative value in those cases in which the typical bacilli are absent. Phosphorus, pure and uncombined, however, is seldom or never administered as a curative agent in cases of tubercular meningitis. The remedies now most employed may be said to be chosen mainly with the object of avoiding or of allaying those symptoms of cerebral irritation which are usually the most painful, as they are apt to be the most conspicuous, features of the disease. This, of course, is treatment only of a palliative sort; it does not, admittedly, go down so far below the surface phenomena as to attempt to deal explicitly with the formation, the growth, the very existence of that tubercular plasm whose presence is the exciting cause of the symptoms by which we have learned to recognise its nature. And palliative treatment, in cases such as these almost invariably are—cases in which the hopelessness of recovery is so enormous, and so generally admitted, that it effects and seems almost to justify a therapeutic paralysis — really resolves itself, if we dare to look the matter in the face, into a barely-disguised ordering of euthanasia. Cases of complete and permanent recovery from "tubercular" affections of the lungs (whatever be the precise nature of the lesions grouped under that rather vague terminology) occur much less rarely than the pathologist of a generation since would have believed possible. Good observers hold that there is evidence of similar favourable results having been attained in some cases of encephalic tuberculosis, despite the greater delicacy and importance of the structures involved in the cacopraxis, and this even in patients of an age at which the nervous centres are specially susceptible, and the whole bodily economy less capable of resisting the depressing influences of disease. But such observers are, as a rule, the first to admit that these instances are among the rare and happy surprises—the fortunate accidents—and by no means the rule of practice. Their total is so few, and their occurrences are so far between, as to force us to the conclusion that recovery, when it does take place, is in spite of, rather than because of, the therapeutic measures which have been used; a conclusion which is only further strengthened if we admit, as some would have us do, that many recoveries from tubercular disease pass unnoticed simply because the disease itself has not been recognised.

Phosphorus, given in the uncombined state, is recommended in various conditions of ill-health which are supposed to be connected with some form of "nervous" disorganisation. No one doubts that the pure drug is at least potent; and there is ample evidence that, in some cases at all events, it is valuable. Phosphorus is generally regarded as a nervine stimulant; when given in therapeutic doses it probably has no claim to such a qualification. One at least of the stimulant properties with which it is commonly credited—an aphrodisiac action—is, as Dr. Phillips insists, simply non-existent. It is probably far less an excitant than a corroborant or conservator of nervous energy; and hence, in appropriate cases, its action is strengthening rather than exhausting. There is a form of "nervous" headache in which phosphorus gives prompt relief; in that condition of langour and undefinable *malaise* from which some young people of a tubercular diathesis are apt to suffer, it often proves most useful; and in certain neuralgias, and especially in the neuralgia of nursing women, to whom the usual hæmatinics have perhaps been given in vain, it commonly acts like a charm. We are scarcely justified then, it seems, in regarding phosphorus as a direct stimulant to cerebral activity; its action is less perhaps on the nerve cell than on its surroundings, and especially on its blood supply; and if its therapeutic effect is displayed rather in the husbanding of static nervous energy than in securing its too ready dissipation, we should have less dread of administering it in those conditions of disease in which the nervous centres are apt to be simultaneously excited and exhausted. The popular application of the *ohne Phosphor keine Gedanke* theory scarcely accords with the teachings of modern science, which again attaches less importance than formerly to the two per cent. with which phosphorus is accredited in the composition of brain-tissue. Indeed, we might say that phosphorus is more important to the maintenance of nervous energy than to the display of nervous activity; that it is less essential as a nerve food than as conditioning nerve nutrition; that it is more directly concerned with nervous health than with nerve work.

In addition to this view of the value of the drug, the possibility of its action as a directly curative agent in cases of tubercular disease is suggested by a consideration of the results claimed for phosphorus in the treatment of rickets. In 1872 Wegner published the results of experiments showing the effects of phosphorus, given in oily solution or in emulsion, in solidifying the growing bones of both animals and human beings. Kassowitz (*Arch. f. Kinderh.*, B. 5, H. 3 and 4) has repeated and extended these experiments. Like Wegner, he found that under the influence of very minute doses the compact was increased at the expense of the cancellous tissue; but he proved, in addition, that this increase was due to a shrinkage of the

medullary spaces, and not to any fresh deposition of bone. On gradually increasing the dose, however, a point is reached at which the action of the drug appears to be reversed, so that cancellous tissue is found even under the periosteum, and the medullary spaces are increased in size, with the formation of numerous greatly dilated blood vessels. The rachitic process thus artificially produced is an inflammatory one, and is displayed in the ends of the diaphyses. In some of the animals experimented upon, the sciatic nerve of one side had been divided; but as this made no difference in the results as affecting the two limbs, it may be concluded that the drug acts through the blood and not by nervous influence. Since 1879 Kassowitz claims to have treated 560 rachitic children by the plan thus suggested, giving $\frac{1}{120}$ to $\frac{1}{60}$ of a grain a day, with remarkable and uniform success. The value of this treatment of rachitis is supported by Soltmann, but is opposed by Schwechten, and by Weiss of Prague. The results of the experiments on which it is based, however, have a direct bearing upon the treatment of tubercular disease by phosphorus. If small does of this remedy produce marked constriction of the blood vessels, especially in young and rapidly growing tissue, it does not appear unreasonable to suppose a gradual starvation of tubercular nodules, with consequent shrinkage and desiccation. Cases of "cured tubercle" are recognised by the discovery of encysted caseous or cretaceous masses; and it is noticeable that those drugs which have been found useful in tubercular meningitis (although mostly given for other reasons), such as opium (Bristowe) codeia, (Harley), chloral, bromide of potassium, &c., possess the power of diminishing the calibre of the blood vessels. Practice is the only bar at which appeals of this kind can be judged; as yet we are still in the region of theory and empiricism on this question. We would raise no hopes, we have no ambition to see an addition to the list of so-called "specific" remedies. But tubercular meningitis is a very fatal disease, for which at present we know of no hopeful treatment. If we agree with Trousseau that "imminent peril justifies the extremity of daring," we may not unreasonably receive without prejudice a plan of treatment which comes before us with at least some theoretical advantages. Some interest freshly roused in this direction will at all events do good if it helps to secure for the new edition of the "Pharmacopœia" the details of some trustworthy and practical method of administering pure phosphorus. In this, as in some other points, the present edition is as misleading as it is behind the achievements of private enterprise.

REVIEWS AND NOTICES OF BOOKS.

THE THROAT AND NOSE.[1]

Four years have already elapsed since the appearance of the first volume of a text-book on the Diseases of the Throat and Nose, which, from its own intrinsic value and from the well known position of its author, at once obtained recognition as a standard work. The second volume, albeit somewhat delayed in its production, is now before us and completes the work as promised by Dr. Morell Mackenzie at the outset of his undertaking. In its arrangement it is modelled closely upon the plan adopted in its predecessor, and deals with the subject of the diseases and abnormal conditions met with in the œsophagus, the nose, and the naso-pharynx. Far more attention has of late years been devoted to these regions than was ever formerly the case, a result no doubt attributable to the more extended use of the laryngoscope as an ordinary instrument of diagnosis. Affections of the pharynx and œsophagus, which used formerly to be regarded more as subjects for discussion than for treatment, have now been brought within the range of practical surgery, and an authoritative treatise, dealing with each in turn in a thorough and scientific spirit, is now a most welcome addition to the standard medical literature of our time.

To all who are familiar with the first of Dr. Mackenzie's volumes, it will be sufficient for us to record the fact that his second volume is compiled in a no less thorough and painstaking manner than its fore-runner and hence possesses an equal value as a work of reference. Apart from its usefulness in this respect, however, we must confess to a slight feeling of disappointment in its perusal, to which we may take occasion to refer later on. Divided into three sections, dealing respectively with the gullet, the nose and diseases of the naso-pharynx, the work is arranged in a series of shorter or longer chapters, in which each affection is described in systematic order. Again, as in his former chapters upon the pharynx, larynx, and trachea, Dr. Mackenzie prefaces his subjects with a brief *resumé* of their history. Perhaps the most important part of his work is that which treats of the affections of the œsophagus, or gullet, as he prefers to style it throughout the book. Of all parts of the alimentary canal, the gullet is the most difficult to deal with surgically, and even from the physician's point of view has received, until quite recently, a smaller share of attention than has fallen to the lot of the more accessible parts within the abdomen. With the introduction of new methods of diagnosis, however, fresh facts are brought to light not only with respect to pathological changes, but also to the variations of the normal physiological processes which do not indicate disease. Among these methods, auscultation naturally takes a prominent position and has, within the last few months, become the subject of closer investigation at the hands of Kronecker and others, whose labours will doubtless find ample recognition in any subsequent editions of the work before us, which at present contains but little more upon the subject than is to be found in the general text-books. The unfortunate occurrence of a devastating fire in the warehouse of the printer has effectually prevented Dr. Mackenzie from taking advantage of the most recent researches, destroying, as it did, a whole edition of his book on the eve of its publication several months ago. Of another and still more direct means of investigation, viz., œsophagoscopy, a more novel account is given. The use of the œsophagoscope, in various forms,

[1] A Manual of Diseases of the Throat and Nose, by Morell Mackenzie, M.D. Lond. Vol. ii. Diseases of the Œsophagus, Nose, and Nasopharynx. London: J. and A. Churchill, 1884.

appears to have been only occasionally successful until in 1880 the author devised the plan of introducing an ingenious form of skeleton speculum, by which he was enabled to inspect the interior of the œsophagus in 37 out of 50 cases. The natural difficulties which combine to oppose the introduction of foreign bodies into the gullet, however, will probably render the most perfect form of œsophagoscope an instrument of only occasional usefulness, and it is a significant sign to that effect, that throughout his book Dr. Mackenzie only mentions one or two cases in which its use has been followed by any important result unattainable by other means.

The diseases of the gullet are discussed in turn, each being fully described and in a few cases exemplified by typical instances occurring for the most part in the author's own experience. These chapters form a most complete summary of the principal facts that have been established with respect to the different diseases by observers and workers throughout the world, and in every instance a full reference is appended to the original article or book referred to. But herein lies a part of that feeling of disappointment to which we have before alluded. The chief desire of the reader of Dr. Mackenzie's work is to ascertain the views and to profit by the recorded experience of a practical physician who has had exceptional opportunities of studying and observing the diseases of which he writes. The reader will find in the present volume a vast store of information, each item carefully arranged and scrupulously ticketed with the name of its presumably rightful owner, but he will at times be inclined to pause and reflect upon the advisability of accepting the assertions of these authorities not otherwise known to fame, and will look for guidance to the composer of the book. It must be confessed that in very many instances he will look in vain.

The discussion of stricture of the gullet opens up the subject of the respective merits of the operation of œsophagostomy and gastrostomy. In common with all practical surgeons, Dr. Mackenzie gives the preference unhesitatingly to the latter, and describes the indications for the operation and the details of its performance with some minuteness. While making mention of the service which Mr. Howse has rendered to the profession in combating the dangers and difficulties of gastrostomy, it might perhaps be more clearly noted that the essential point in its success, viz., the delay in making the opening into the stomach until after adhesions have formed, was entirely original in his hands. The subject of paralysis of the gullet is one which is probably unfamiliar to a large section of the profession, and the author's observations upon it will be read with much interest. He would classify several forms of palsy, according to their central, peripheral or local origin, the former occurring chiefly in association with other grave lesions about the medulla oblongata. The local forms would appear to be of frequent occurrence. A more detailed account of a few illustrative cases would however be welcome out of the large number of patients to whom Dr. Mackenzie incidentally refers as being cured annually by electricity.

Passing now to the middle section of the book, which deals exclusively with affections of the nose, we must again recognise the immense amount of labour and care that has been expended in the preparation of the work. In his anxiety to do justice to his predecessors in the field, the author never omits to unite the name of the authority to the record of the fact, theory, or observation for which each is responsible. *C'est magnifique, mais ce n'est pas Mackenzie.* The perusal of the minor differences of opinion between lesser lights than he, is a poor compensation for the store of information and thought which even the labour of compilation alone must have engendered. That one practitioner in Illinois has twice treated nasal polypus with perchloride of iron, while another has been no less successful in Baltimore with chromic acid, strikes us as a form of difference which may fitly be compared to the immortal contention of Tweedledum and Tweedledee, and certainly forms a sorry substitute for the deliberate opinions of Dr. Morell Mackenzie. With respect to operative interference in cases of nasal tumours, an account is given of the theory and practice of a long series of operators, and the relative merits of evulsion, abscission, and removal by galvanic cautery are discussed. While giving a decided preference to the latter in certain cases, the author would still make free use of the forceps in removing the deep-seated tumours, and especially those which are firmly attached to bone. It cannot be denied that this subject of the treatment of non-malignant tumours in the nose is one of very considerable importance, and we may express the hope that in any future edition of his book, Dr. Mackenzie may find room for some further details with respect to the operative proceedings necessary for their removal, even though it be at the expense of some of the chapters dealing with less familiar conditions.

The chapter upon "hay fever" is practically identical with the shilling pamphlet on the subject, published by the author in the early part of the present year. The most important parts of the article are derived from a paper published in 1873 by Blackley, of Manchester, a work which the author describes as a model of scientific investigation. This fact was however somewhat overlooked by the chorus of daily and weekly newspapers, which combined to trumpet forth Dr. Mackenzie's praises during the month of May last. "Some," said Malvolio, "have greatness thrust upon them," and, perhaps, we ought rather to condole with the author on thus having been compelled to pose as an original authority on the strength of his epitome of the works of others.

The concluding section on the naso-pharynx contains a store of information upon the affections of that somewhat neglected region. The extreme frequency of adenoid vegetations upon the vault of the pharynx has only become generally recognised of late years. The important physiological and even anatomical disturbance to which their presence may give rise, renders their proper treatment a matter of serious importance to the patient. Dr. Mackenzie's chapter on the subject, albeit he prefers to recount the experience of others in preference to his own, will do good service in calling more prominent attention to the disease.

As in the case of the first volume of the book, a German translation of the second has been published, simultaneously with the original, by Dr. F. Semon. Although the translator has faithfully rendered the text of his author, he has introduced in the form of annotations several important considerations in support of his views upon those subjects in which he differs in any material degree from Dr. Mackenzie. Of these, the most important are in relation to the removal of polypi and the treatment of adenoid vegetations. They may be read with advantage in association with the articles to which they are appended, and will be found to add very materially to their value as guides to treatment.

Of the complete treatise on "Diseases of the Throat and Nose" we must speak in terms of high praise. It is a monument of painstaking research and skilful arrangement. In reviewing it, we have ventured to suggest some points in which it might profitably be curtailed or expanded, but while still owning to a distinct feeling of disappointment at the scanty expression of the author's own opinions, and to the somewhat meagre dole from the treasures of his case-books which he has vouchsafed to us, we cannot but admire the splendid industry and perseverance which have been combined to place before the profession so complete and scholarly a summary of such a wide and varied field of research.

THE INTERNATIONAL MEDICAL CONGRESS.

Section of Laryngology.

(*Continued from page* 415.)

Dr. Bosworth (New York), Vice-President, in the Chair.

The Treatment of Bronchocele.

Dr. Morell Mackenzie read a paper on the Treatment of Bronchocele. The necessity of accurate diagnosis in the first place was insisted on as being the only basis of successful treatment. The following is a summary of Dr. Mackenzie's conclusions, which, it must be observed, do not embrace exophthalmic goître or malignant bronchocele: —(1) Simple goître (enlargement of the thyroid body) of recent origin and occurring in young persons, can, in the absence of endemic influences, generally be cured by the administration of iodide of potassium, and in many cases by counter-irritation. (2) Fibrous goître is best treated by parenchymatous injections of tincture of iodine. (3) Cystic goître can be most readily cured by conversion of the cyst into a chronic abscess, which is effected by emptying the sac, injecting a small quantity of a solution of perchloride of iron and allowing it to remain within the sac for three or four days. (4) When the cyst is of considerable size it should not be emptied at once, but should be tapped two or three times before the injection is used. (5) Removal of the thyroid body is a dangerous operation, which should never be performed for mere cosmetic purposes, nor even for the relief of urgent dyspnœa, except when less radical measures have failed. At the conclusion of his discourse, Dr. Mackenzie showed the instruments which he was in the habit of using, viz., the trocar and canula for tapping cysts, and a syringe of peculiar construction for injecting perchloride of iron without risk of the entrance of air.

An interesting discussion followed, in which many members of the section took part, Dr. Schäffer (Bremen), in particular, expressing the opinion that justice had not been done to the efficacy of galvanism, by means of which he had succeeded in curing many cases of goître.

Professor Ribbing (Lund) read a paper on the same subject, in which he maintained that there were many cases in which no mild measures were of use, and excision was therefore the only resource.

Photographing the Larynx.

Dr. Thomas R. French (Brooklyn) presented a communication on "A perfected Method of Photographing the Larynx." He stated that he had been making experiments in connection with this subject for more than two years, and after overcoming many difficulties, his endeavours had been crowned with complete success. He could now with perfect facility obtain sun-pictures of the human larynx, both in health and disease, and so rapidly that only one minute was required for each photograph. Dr. French claimed for his method the merit of being exceedingly simple—little, if any, knowledge of photography being necessary—and so easy in the working as to be available in ordinary every-day practice. The apparatus was described as consisting of—(1) a cone of metal containing two lenses for the concentration of the sunlight; (2) a small camera with the throat-mirror attached, which is held in the hand whilst the photograph is being taken; and (3) an ordinary laryngoscopic reflector. The concentrator is placed in the window in such a way that the sun's rays pass through the lenses, the light thus produced being very intense, without being at all hot. This stream of light is caught on the mirror fixed on the operator's forehead, and from it reflected into the throat of the subject. The small mirror connected with the camera is then placed in the proper laryngoscopic position, and when the larynx is seen to be properly illuminated the operator by pressing with his index finger on a spring, releases a shutter which in falling makes an instantaneous exposure. Dr. French exhibited his apparatus and demonstrated its manner of working; but, unfortunately, he was prevented from giving a public proof of his skill in laryngeal photography by want of sunlight. He showed, however, two portfolios containing a large number of photographs of the larynx both healthy and diseased. These had been taken from twenty-five different individuals. One set was particularly interesting, as being the result of a series of experiments on professional vocalists, and as showing the state of the parts during the production of different notes. The soprano, tenor and bass registers were represented in the utterance of each note through the compass of an octave and a half, and the contralto was shown throughout two octaves and a half. These photographs had been taken both with the subject's tongue protruded, and whilst it was kept in the natural position inside the mouth. Dr. French had also succeeded in photographing the posterior nares and exhibited several views of that region.

Galvano-Cautery.

Dr. Bayer (Brussels) read a highly interesting and practical paper on "Accumulators and Galvano-Cauterisation." He stated that accumulators, or secondary piles, made the practical application of galvano-cautery very simple; that they were easy to keep in order, and at once more durable and less costly than any other galvano-caustic apparatus, whilst they could always be depended on for certainty and efficiency of action, besides being extremely convenient for many different purposes, as for carrying about in private practice, electric illumination, &c.

Treatment of Diphtheria.

Dr. Seifert (Würzburg) presented a communication on the treatment of diphtheria. He maintained that the practitioner must be guided by the appearance of the throat, and that therefore the treatment must be essentially local in character. The diphtheritic product must be either dissolved by proper medicaments, or rendered harmless by antiseptic applications, but cauterisation must never be employed.

A paper dealing with the same topic was read by Dr. Berlème Nix (Denmark). Starting from the position that diphtheria is primarily a local disease, generated by specific

contagion, the point of invasion being the throat, and the system being secondarily infected by the false membrane, he argued that whilst the general condition must be carefully attended to, the principal part of the treatment must be the removal of the false membrane. For this purpose Dr. Nix maintained that no reliance could be placed on either caustics, solvents, or astringents. The treatment which he recommended was cleansing of the throat by means of gargles, syringing the parts with disinfectants, and removal of the false membrane with sharp spoons, followed by the application of lunar caustic to the scraped surface. Dr. Nix also spoke very highly of the results of Dr. Morell Mackenzie's method of treatment by exclusion of air from the false membrane by means of varnishes. In addition to the local measures, isolation of the patient, nourishing food, and fresh air were insisted on. Internal medicines were useless, except tonics and stimulants which were indicated in some cases.

The Training of the Singing Voice.

Besides the communication on the structure of the tonsils which has already been referred to, Dr. Bosworth (New York) read a paper on the proper method of training the singing voice. He contended that the importance of the larynx in the production of the singing voice was exaggerated, the fact being that the whole extent of the upper air-passages constituted the true organ of phonation. The use of the laryngoscope had led to faulty modes of teaching based on narrow conceptions of the mechanism of voice-production. Voice-culture, to be successful, must be grounded on physiological laws. Dr. Bosworth's chief practical conclusions were that training of the voice may be begun at an early age, provided it was restrained within prudent limits; that methods which over-develop a single factor in voice production are essentially vicious; and that compass of voice is to be gained by training the notes which the pupil *easily* possesses.

Laryngeal Paralysis.

Dr. Cadier (Paris) read a paper on paralysis and paresis of the larynx. He said that he had frequently observed cases of slight temporary paralysis—generally affecting the tensor muscles—of the vocal cords. Most of these had occurred in gouty subjects, and as a rule the speaking-voice was extremely little, if at all, affected. In singing, however, weakness and some degree of hoarseness in the upper notes were discernible, whilst on local inspection, congestion and deficient tension of the cords could be recognised. The causes of the condition were cold, overstrain, or even mental emotion, and Dr. Cadier had found that the most successful treatment consisted in the use of a moderately strong continuous current.

Dr. E. J. Moure (Bordeaux) read a paper, in which he strongly condemned the habit which many practitioners were in of treating tubercular disease of the upper air-passages, as well as other laryngeal affections, with sulphurous medicaments. The action of these on the larynx was irritative, *i.e.*, they caused congestion, and although this might be beneficial in certain conditions, it was absolutely contra-indicated in laryngeal phthisis. The only effect of such treatment must be to quicken a chronic disease into a state of acute mischief and so hasten the fatal issue. Dr. Moure did not hesitate to affirm that the worst examples of laryngeal phthisis which he had met with had been in cases where patients had been subjected to the sulphur-treatment (sometimes during no longer than a week or a fortnight) for a slight hoarseness, the cause of which had, as a rule, been misunderstood.

Dr. Ernest Schmiegelow (Copenhagen) related a case of nasal calculus occurring in a man aged 58. The patient had had an offensive discharge from the left nostril for sixteen years. On examination, a rhinolith was found curved around the lower turbinate bone. The stone was crushed with a lithotrite and removed. It was found to have no nucleus and to consist chiefly of inorganic matter (phosphate of lime, phosphate of magnesia, a little carbonate, with traces of chloride of lime). Dr. Schmiegelow drew attention to a curious symptom that had existed for a considerable portion of the time during which the patient had suffered from the complaint, viz.: frequent profuse perspiration on the left side of the head.

A mannikin for the practice of intra-laryngeal manipulations was exhibited by Dr. Garrel, of Lyons, and Dr. Michael, of Hamburg, showed some ingenious instruments intended for use in the operation of tracheotomy and in the application of local remedies to the larynx.

In conclusion we have great pleasure in stating that it was the unanimous opinion of the members of the section that the brilliant success of its meetings was in a large measure due to the admirable arrangements made beforehand by Dr. Wilhelm Meyer, and to the unflagging zeal, painstaking attention to detail, and uniform courtesy with which the Secretaries, Drs. E. Schmiegelow and H. Mygind (assisted by Dr. Hooper, of Boston, and Dr. Krause of Berlin) discharged their trying duties.

Section of Psychological Medicine and Neurology.

Morphinism and its Treatment.

Dr. Obersteiner (Vienna) on August 11th read a paper on this subject. The treatment, he said, varied according to the individual; most generally it was best to diminish the dose gradually; sometimes one might suppress the use of the drug altogether, suddenly, without any bad result. Throughout the whole treatment the employment of cocaine would be found beneficial. Sometimes one could foretell that even if one succeeded in checking the use of the poison, the cerebral phenomena which had already made their appearance would continue just the same after the withdrawal of the drug. In such a case it would be better to leave the matter alone, and not to undertake a long and tedious treatment which would be fruitless.

Professor Adamkiewicz (Cracow) communicated his researches on the pathological nature of *locomotor ataxy*. According to him the lesion always commences by two symmetrically placed S shaped zones of sclerosis towards the middle line and a little above the posterior radicular fasciculi.

Cerebral Affections due to Excessive Brain Work.

Dr. Kjellberg (Upsala) on August 12th communicated two papers on this subject; the first was headed "On the Influence of School Discipline and the Present Methods of Teaching on the Health of Youth," in which he showed that this discipline constrained the pupils to spend the greater part of the day in intellectual labour, that work so assiduous was to be considered as very dangerous for the normal development of the child, and that the lack of sleep and the sedentary life exercised a pernicious influence on his physical development. He then narrated instances of cerebral affections caused by excessive brain work, and demonstrated the remarkable analogies which their respective courses showed. Taken in chronological order these symptoms were headache, insomnia, intellectual and physical torpor. The character of the scholar changed completely; very soon there appeared muscular weakness, spasmodic movements, hallucinations, and very often sudden loss of consciousness. The determining cause was a partial chronic cerebral congestion of the grey substance of the hemispheres chiefly, caused by the excessive attention sustained too long and by insomnia. Statistics collected in the Swiss schools showed that the cases were so numerous that the various governments were considering how to modify a state of affairs so dangerous.

Bodily Exercise in the Treatment of Mental Disease.

Dr. Kjellberg made a second communication on the value of bodily exercise in the treatment of mental diseases. If one took the admission list and compared it with the discharge list, excepting the general paralytics, it would be seen that from 40 to 45 per cent. remained incurable from the date of their admission into the asylum. This lack of result was not to be attributed so much to the nature of the maladies under consideration as to the defective treatment adopted. The best form of bodily exercise was undoubtedly work proportioned to the strength and health of the patient. Every one knew the good results obtained in agricultural

districts, but there were a great many patients always for whom this admirable exercise was not available. There always remained in the asylum a number of idlers (not less than 50 per cent. of the whole number) for whom special arrangements were almost everywhere wanting, especially in respect of space large enough for long walks, and the establishment of a complete gymnastic apparatus. The essential condition to make this system of treatment effective was that during the night the patients should have complete rest, and therefore the system of large dormitories ought to be abandoned.

M. Paetz (Alt-Scherbitz) read a somewhat similar paper on the use of country establishments in the treatment of the insane. He insisted, even more forcibly than the previous speaker, on the part which such establishments were destined to play in the future in the treatment of lunatics. Even those whose disease ran a rapid course would derive great benefit from that open air exercise, the benefits of which it was no longer necessary for him to demonstrate.

M. Luhier said that the country establishments had likewise produced very good results in France, but in order to avoid disappointment it was desirable not to send thither indiscriminately all sorts of patients. It was desirable that these establishments should not be too far from the great centres in view of the difficulties of transport, and the incessant necessity for supervision which was required.

M. Steenberg gave a statistical review of the mental diseases and psychiatric institutions of the countries of the North. The points to which he especially alluded were the frequency of suicide in Denmark, and of suicide by strangulation, the form of melancholia which mental diseases generally assumed, and the predominant part played by syphilis in the ætiology of general paralysis.

Dr. Rohmell (Denmark) also affirmed that syphilis was very constantly found in the antecedents of the general paralytics, and that it was largely implicated in the origin of these mental disorders. This syphilis, he said, which at the commencement of the paralytic symptoms was usually of some years' standing, had often been of a very mild character, though it might also sometimes have given rise to serious troubles. The essential lesions found at the autopsy in these cases were adhesions of the meninges and atheroma of the basilar arteries. Specific treatment did not cure the disease, it only retarded its evolution. Perhaps one might suppose that the syphilis underwent some peculiar modification in its nature.

M. Magnan spoke of the great number of this class of patients who came under his observation. The antecedents of each patient were always carefully enquired into, and syphilis was found to be in a position to be accused in not quite as large a proportion as that given by the two previous speakers. The numbers, which he could not then give, were not, he thought, too high to be explained as a mere coincidence. When heredity, the great predisposing cause was present, syphilis might be the occasional cause, it was not the efficient cause, and it never was in any case. Syphilis might give rise to limited cerebral lesions, which might stimulate general paralysis, but in these cases the group of symptoms so characteristic of the disease was never complete. Besides, in these cases iodide of potassium produced excellent results, and both the authors had admitted that in their cases anti-syphilitic treatment had been without avail.

M. Gilles de la Tourette presented, on behalf of M. Charcot, an album containing photographs of all the cases of interest observed at the Salpetrière, and made a communication on salivation in nervous diseases, from a physiological point of view.

Lateral Amyotrophic Sclerosis.

Dr. Friedenreich (Copenhagen) on August 14th read a paper on this subject. He did not deal with the lesions of this disease now well known, but contented himself with offering some considerations referring at once to the pathological anatomy of the disease and its clinical aspect. Thus, according to him, the alteration of the white substance was not limited to the pyramidal fasciculi, but occupied in less degree the whole of the antero-lateral columns, especially in their deeper parts. Cases with progressive muscular atrophy could then be divided into four classes: (1) The hereditary or infantile progressive muscular atrophy with or without excessive development of fat (pseudo-hypertrophic paralysis). (2) The so-called juvenile form, rather a rare one, and one of which there had been but very few *post-mortem* examinations which appeared to be analogous to the infantile form. (3) Lateral amyotrophic sclerosis, a common disease with well defined lesions. (4) Protopathic spinal amyotrophy, the anatomical lesion of which was atrophy of the motor cells of the cord without lesion of the white substance. M. Friedenreich believed that these latter might be regarded as typical instances of lateral amyotrophic sclerosis.

M. Roth (Moscow) also made a communication on lateral amyotrophic sclerosis, somewhat analogous to that of the last speaker. The author, in his classification of muscular atrophies, almost denied the existence of the form known as that of the Duchenne-Aran type (our progressive muscular atrophy), which he said had not been clearly defined by clinical observation backed up by *post-mortem* examinations. In reference to infantile muscular atrophies, M. Roth admitted a hereditary form with or without pseudo-hypertrophy, and relying on a single case where lesions of the nervous system had been absent, substituted for the non-hereditary form (infantile paralysis) a new form of progressive muscular atrophy essentially protopathic without nervous lesions.

M. Gilles de la Tourette said that both from a clinical and a pathological stand-point it was impossible for him to subscribe to the views of the two last speakers, and more especially to those of M. Roth. If it was true that the discovery by M. Charcot of a spinal affection as well defined as lateral amyotrophic sclerosis had contributed not a little to throw a new light on the whole group of progressive muscular atrophies, it was no less certain that protopathic muscular atrophy (Duchenne-Aran) had come out of this trial victorious. Clinical observations, of which there were plenty, showed that this type had a special course of its own; and there was one characteristic in particular on which M. Charcot insisted, and that was the absence of exaggeration of the tendon reflexes, which was one of the characters of lateral amyotrophic sclerosis even when ankle clonus had not as yet appeared. The progress of the two affections was not the same, lateral amyotrophic sclerosis rapidly affected the medulla and led to a fatal termination much sooner than the proto-pathic form. It had been said that there had been very few autopsies. The speaker regretted that he was not in a position to bring forward statistics of the cases recently observed by experienced persons. In the same way he thought that tephro-myelitis, better known as infantile paralysis, ought not to be connected with pseudo-hypertrophic paralysis (even without hypertrophy), as M. Friedenreich proposed, or replaced by a new form on the strength of a single case as suggested by M. Roth. Clinically there were vital differences between them, both in regard to mode of onset and to course, whilst from the point of view of pathological anatomy, from the writings of M. Duchenne the younger, of Roger and Damaschino, and of others whose ability for the task could not be gainsaid, infantile paralysis must be acknowledged to be a well defined affection.

Religious Rites in the East.

M. Zambaco read a paper on this subject. He said that in Islamism there were several routes or *tariks* leading to Paradise, by special methods of adoring the Deity and the prophet. Numerous confraternities, having at their head *chehs*, gave themselves up to prayers with demonstrations, varied according to the body to which they belonged. These *chehs* were holy men, gentle, amiable, and intelligent. The religious exercises of these fraternities led to nervous excitement and neuropathic manifestations, resembling the hysterical outbursts of Christendom in past centuries, which might still be met with at the present day in some Christian lands. The sect of the Naxi-Bendi was one of the most important; assembled in their chapel, they would fall on their knees, facing the *cheh*, who watched them during the whole ceremony, which lasted about two hours, during which period all the worshippers had their eyes closed, the *cheh* alone excepted. The latter commenced by

offering up a short prayer, then came an interval for meditation, followed by a hymn, after which various nervous manifestations would make their appearance. Some would be seized with partial convulsions, others with epileptiform attacks. One would commence a violent rotation of his head, moving it 400 times a minute; another would strike his knees with his hands 200 times a minute, saying each time he did so "Allah," another would be seized with violent laughter, another with lamentations and a flood of tears. Some would be found in various attitudes, others would utter discordant cries. In the place set apart for women the scenes that took place were even more extravagant; every stage and variety of hysteric contortion could be seen, including catalepsy, choreiform movements of the head, and epileptoid attacks. Ultimately they all became calm, worn out with exhaustion. Towards the end of the performance, the *cheh*, after reciting some prayers in a low voice, would blow with all his might on the chest of those supposed to be exorcised over the region of the heart, and at each blast of his breath, which sounded as if it came from a metal tube, the subject would tremble. In this way the *cheh* treated a crowd of patients, mostly neuropathics. He also would go out into the village to those who were not able to be moved, but he did not exclude the calling in of medical practitioners. He also blessed the linen and clothes of patients, that they might recover their health by wearing them. Another favourite method of treatment with him was to write some prayers on a piece of paper, which would then be placed in a glass of water and be swallowed by the patient. There were other sects whose religious manifestations would be of interest to the neurologist, notably the Bavais, who fell into convulsions after having leaped and danced and oscillated in every possible direction, and cried aloud for whole hours together. When the paroxysm was nearly over, they were so analgesic that the skin and the limbs and trunk might be pierced with a brooch without their feeling any pain, and they would swallow bits of glass, living scorpions, and the leaves of the cactus.

In the discussion which followed the reading of this paper it was pointed out by some of the speakers that men as well as women were subject to typical attacks of hysterical nervous phenomena.

The Section would up its labours by an excursion to the Asylum at St. Hans, about half-an-hour's ride from Copenhagen, an asylum built to accommodate about 800 persons, under the supervision of M. Steenberg, the director, who, after showing his guests over the building, entertained them most hospitably at dinner.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE XVI.

Food.

Food, dressed and raw, natural and artificial, diets of prisons, of workhouses, of soldiers, of sailors—the luxuries of the west, side by side with those of the east—dinners illustrative of far away eating customs and manners and the manifold curiosities of food used by omnivorous man, have been displayed on a scale and with a lavishness never before possible in the whole of the world's history. The articles dealing with food in this journal must now be brought to a close, not from any dearth, but rather surfeit of material. First there are, however, a few miscellaneous matters which are important enough to deserve a brief notice.

Meat Extracts.

Liebig is the father of beef extracts; his analyses of flesh extractives and views thereupon gave the requisite impetus to the commercial manufacture on a large scale of extract of meat. Messrs. Brand, of 11, Little Stanhope Street, Mayfair, exhibit essence of beef, potted meats, sauces, and all sorts of specialities for invalids. These, so far as our examination goes, seem to be without exception of the highest excellence. Messrs. H. W. Brand, of 5, Vere Street, Oxford Street, also have a very similar exhibit, and so far as genuineness and palatability are concerned, their samples leave nothing to be desired. It may be well to observe, that although the two Brands are similar in name and business, they are altogether distinct firms.

Carnrick's Beef Peptonoids is practically a dessicated meat extract; the peptonoids are presented in the shape of a brown dry powder, with but slight odour and feeble taste. In portability and permanence a dry powder has advantages over a sticky extract. That it is equal or superior to ordinary meat extract has not yet been satisfactorily proved; as with so many other things of the same kind, actual comparative feeding experiments by perfectly uninterested observers are requisite to form a correct judgment.

Kreochyle is an entirely different preparation from any of the above. In the manufacture of ordinary meat extracts the fat, the soluble albumen and the fibrin are all as much as possible removed, the result being that beef-tea made from extract has been considered rather as a stimulant than a food. By infusing meat in water, kept always under the coagulating point of albumen, filtering, and then evaporating the fluid down to the consistence of a syrup in a vacuum pan, it is of course possible to obtain all the extractives together with the soluble albumen, and this we presume is something like the process adopted by the Kreochyle Company, who by this means, or some other, have succeeded in supplying a substance which is very fairly described as "liquid meat." Kreochyle then should be tried. It certainly ought to be found most useful in the treatment of wasting maladies, in inanition and in the artificial feeding of the insane.

Self Digestive Foods.

The idea of assisting the nutrition of a body inherently weak, by doing work outside the stomach and intestines which in robust health should be done inside, is essentially modern. Physicians have now not alone a goodly array of imperfectly known substances, such as ingluvin, ptyalin, pancreatin, diastase and pepsin, but also more or less completely digested foods at their disposal.

Messrs. Savory and Moore exhibit, among many interesting objects, a little case containing a thermometer and all appliances for "peptonising" foods. In the ordinary domestic manipulation of foods containing diastase or pepsin, but little attention is paid to the temperature of the water added in the first place or to the subsequent digestion; but provided with Messrs. Savory and Moore's case, any ordinary nurse would be able to prepare the food in a suitable manner. The same firm also display soluble meat jelly, infant's food, fluid meat, pepsin, peptone, and several other valuable preparations and principles.

Benger's peptonised beef-jelly, the well known and really active liquor pancreaticus, as well as the "self digestive food," all three exhibited by Messrs. Mottershead, are typical examples of the group of artificial digesters.

The action of diastase on oils and fats has not been sufficiently studied. The writer made a single experiment once upon cream and malt extract digested together at blood-heat. A splendid emulsion was obtained, and apparently the fat was partly broken up, and even the nitrogenous constituents in a way digested. If this really be the case, malt extract may be more valuable as a digestive and a remedy than hitherto supposed. Whatever interesting chemolysis results, the main practical fact that oily matters can be thus acted upon by means of malt extract was early found out by the manufacturers; as for example, in the Cod Liver Oil Milk of the Maltine Co., and in Loeflund's Cremor Hordeatus. Whatever the value of these preparations may be, they are of considerable interest, indicating a possible method of disguising the taste of the most nauseous remedies.

"Canned Foods."

"Tinned," or as the Americans term them "canned," goods are to be judged not alone by the quality of the preserved edible, but also by the presence or absence of corrosion of the metallic lining. The conditions favouring

the solution of tin are chiefly scratches or flaws in the lining, solder setting up galvanic action, and above all the amount and kind of acidity. In a tin of very sour apricots, sold at a low price, the writer found as much as 11 grains of tin per pound of fruit in solution; in this case all the above favouring conditions were present. On the other hand the comparatively feeble acidity of meat juice only dissolves mere traces of tin, so small that no one save a homœopath could conceive such traces as physiologically active. The canned goods of different importers naturally vary much in both quality and metallic contamination. We have made a special examination of Messrs. Moir's tins, and find them excellent in quality, and even their vegetables, with juices of considerable acidity, yield but feeble evidences of metal.

While speaking of canned goods, the excellent tinned mutton imported by Messrs. Walsh, Elliott, and Rennie, may be referred to as equal in flavour and quality to the best we have ever tasted.

The writer, while denying the ill effect of very carefully prepared "canned" goods, must emphatically state his conviction that after all the best material for use is glass or earthenware. Messrs. Blanchflower show jars hermetically sealed by an ingenious form of stopper, which they are using for their potted meats. The samples of fish and fowl which have reached us from this firm, preserved in the way mentioned, are deserving of high commendation.

Other Food Exhibits.

The artful amalgamation of hot peppers, spices and flavours, so as to please jaded palates, has been brought to perfection by Mr. Edmunds, who manufactures all kinds of curry powder, sauces and baking powders. Some of these substances are of an extremely complicated composition; and the receipts remind one of mediæval potions. However empirical the principle of composition, the legion of medals carried off by this fortunate "epicier" shows that success has been attained.

Rose's Lime Juice Cordial is largely used in our ships and consists of a very pure lime juice, which keeps clear and free from ropiness for an indefinite time.

The A B C cereals now constantly figure at all food exhibitions. They consist of very fine selected samples of oatmeal, maize, &c., ground in a particular manner. The only fault that can be found with these cereals is that the price is somewhat above the ordinary brands.

Messrs. Blaxall have an imposing exhibit of confectionery jams, and preserved fruits. The jams have been carefully examined, both by chemical analysis, and also by the staining process lately introduced. They were found free from foreign pulp, genuine and wholesome.

Mr. Torrance exhibits rusks made not alone of pure materials but of the best quality. Rusks, and generally speaking dessicated bread stuffs, are found to be useful in the treatment of many forms of indigestion; palates loathing almost everything, are yet not repelled by dry toast, dry biscuits or rusks.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

SIR,—I am glad to see in your issue of last week an attempt being made to record the experience of those connected with Hospitals for Sick Children, on the subject of over-pressure in elementary schools, as such records cannot fail to be of great value as an important contribution towards the elucidation of this much debated question. At the risk of repeating what has already been said, I will send you the impressions made on my own mind, during the last two years, since public attention has been directed to the question, in the out-patient room, and also while seeing something of the children both at school and at home.

In the first place, is chorea a commoner disease among children than it was ten or twelve years ago, before the present Board School system commenced its operations? As an attempt to answer this question, I have searched the records in the out-patient department of the General Hospital for Sick Children, Manchester, with the following results:—

1871,	40 cases of chorea admitted,	9101 total out-patients.	
1872,	39	,,	7957 ,,
1873,	56	,,	8227 ,,
1881,	55	,,	5773 ,,
1882,	66	,,	6916 ,,
1883,	80	,,	7602 ,,

From these figures it would seem that the number of cases of chorea admitted as out-patients has risen from 4·3 per thousand, in 1871, to 10·5 per thousand in 1883. I am well aware of the fallacies which may lurk in such figures, and in any attempt to work out such a question by statistics; and even granting the inference as correct that chorea is a commoner disease than it was, it does not necessarily throw the onus of producing it on the Compulsory Education Code. But my own enquiries made in the out-patient room have convinced me that school work, whether "forced" or not, is frequently the exciting cause in producing chorea. I believe this is more especially true with regard to the milder and more irregular forms which are treated as out-patients, rather than in the severe forms which are admitted to hospital. Indeed, I have been surprised to find, in looking over the histories and enquiring of friends, how comparatively seldom the question of overwork has been mentioned in the severer forms of chorea; and how, when it has, it has rather been that the twitchings began after a scolding, or at the sight of the master's cane, than from any hard brain-work. It has often happened that after the movements have ceased, they have quickly recurred after going back to school.

I can corroborate also the experience of your correspondents with regard to *frontal* headache. I have again and again seen girls suffering in this way, their headaches being connected, in the minds of the parents, with school-work, and who have quickly got well with rest at home. So severe was the headache in one case, that I admitted her to the hospital under the impression that there might be organic disease. But these cases have mostly had one condition in common, *i.e.*, more or less marked hypermetropia. They have been quickly relieved by rest, and in most cases permanently so by suitable glasses. I do not think I have seen any cases of headache, other than the above, which were evidently the result of straining the accommodation, rather than from over-worked brains.

I fully agree with the remarks of Dr. Sturges on tubercular meningitis, diabetes, nephritis, &c.

I do not believe for a moment that over-pressure at school is responsible for the production, or is the exciting or predisposing cause of any of these ailments. Tubercular meningitis is the final scene of a general tuberculosis in the vast majority of instances, and its ætiology cannot be separated from the constitutional disease of which it is only an incident. The few cases of convex meningitis which I have seen and verified *post-mortem*, have been in subjects who were too young to have suffered from brain-forcing or overwork.

In considering this question it must not be forgotten how and where the children spend their time when absent from school. Is it better for many of our weakly and badly fed children to be under discipline and careful training in well-ventilated schoolrooms, even with some risk of over-working their brains, or to be running wild in the

slums or selling newspapers in the streets? I have written certificates for children to certify that they were unfit for school, and have seen them out next evening selling hot potatoes at the corner of the street!

Finally, to sum up, I believe there is ample evidence to show that the system of education in our elementary schools is productive, or has a share in the production, of functional brain disturbance of which chorea may be taken as a type, that damage is being done in some instances to the eye-sight of the scholars, which calls for the serious attention of the authorities, but I acquit it *in toto* of having any hand in producing organic brain disease or any other ills which threaten or seriously affect the lives of the scholars. Believing as I do that compulsory education is a necessity of our times, that examinations and various standards are necessary evils, and that the time which the children of our poor have to devote to learning is necessarily short, it is a matter of the greatest moment that the authorities, while insisting on a rigorous code, should take the greatest care lest they defeat the object they have in view by applying it blindly and without discrimination to the weak as well as to the strong.

I am, Sir, yours, &c.

HENRY ASHBY,
Physician to the Manchester General Hospital for Children.

Manchester, September 30th, 1884.

[To the Editor of the Medical Times.]

SIR—I have responded somewhat tardily to your request, because at first sight you seem to require detailed facts such as are not in my possession. But on further consideration, it may at any rate not be amiss to state a thought which came to my mind as I read Mr. Fitch's memorandum. If I mistake not that gentleman objects that some of Dr. Crichton Browne's conclusions were founded upon bases such as no lawyer would accept for a moment. Nor do I doubt the correctness of that assertion. But I do doubt whether this is a matter which lends itself to the satisfaction of such a requirement. There are a good many things in medicine at any rate which could not be proved to demonstration, the probable truth of which it would hardly be wise to reject; and in the matter of educational over-pressure it would be easy indeed for a logical mind to refuse to accept almost any number of such facts as can I think alone be offered. The subject is far too intricate to allow of the collection of facts in any number which shall be free from objection, and I fancy that if there is any truth in the idea of its existence, over-pressure will yet be established on the, to Mr. Fitch, but baseless fabric of Dr. Fell's impressions.

And having said this much I may be allowed a little further latitude as regards the question itself. I am not prepared to say that my experience has taught me that educational over-pressure exists among the children of the poor in any large number of instances, but perhaps it is worth saying that after reading the letters of your correspondents in last week's issue, the experience of Dr. Donkin almost exactly tallies with mine. I have repeatedly thought that school work was proving injurious, almost exclusively in the case of girls, and have had difficulty in persuading the mother to allow her child to absent herself, either because of a forthcoming examination, or the—perhaps imaginary—fear of the inspector.

I had thought that this was more the case in the earlier than in the later years of the application of the Code. At first there was considerable difficulty with certificates of absence; a certain form was printed, I believe by authority, but between the parent and the teacher it was not readily procurable. The certificate was worded in a manner which gave little countenance to ill health. It ran thus: I certify that A. B. is suffering from——and is unable to, attend school, but will be able to return in——weeks. And finding that this hampered my freedom in the matter of convalescence a form was ultimately printed for use at the Evelina Hospital which contained the simple statement that the child was ill and unable to attend school. I have not often found that parents have asked for their child to be needlessly examined.

I think, however, that the case which most needs investigation is that of the pupil teacher. I have several times, amongst my out-patients at Guy's Hospital, met with cases of young girls I considered urgently in need of mental rest; headache, nausea, bad appetite, wasting and sleeplessness being attributed to the continuous round of teaching and learning which this twofold duty necessitated. Further, I think there is evidence to show that the unremitting work at their time of life, in the fears that centre round puberty, tells prejudicially upon the male as well as the female, for I have often noticed, amidst ample opportunity for so doing, that youths who have been studying hard in the lower ranks of life to qualify them for the position of teachers, are, as a rule, a poor lot, pale, nervous, flabby and headachy.

This, however, is beyond the immediate issue, which is, how far the Board School system is causing over-pressure. On that head had Mr. Fitch confined himself to the criticism, "but what are these among so many?" I should have been disposed to agree with him so far that further evidence is imperatively called for before the question can be settled. That individual cases of over-pressure occur, I cannot doubt, but whether these are in any such large number as would demand some changes in the scheme in vogue, I do not know. I think it may even be questioned whether a certain amount of it can be avoided in these days of high pressure, when the weakest inevitably goes to the wall.

I am, Sir, yours &c.,

JAMES F. GOODHART,
Physician to the Evelina Hospital for Children.

October 1st, 1884.

[To the Editor of the Medical Times.]

SIR,—There is no doubt whatever but that a certain number of children are the victims of overwork in Board schools. In the out-patient department of the Hospital in Great Ormond Street, such cases are met with, not often but every now and then. The same has probably been observed at other Children's Hospitals. The impression produced on my mind by many years' experience of this kind, is that there is need of improvement in the relations existing between the visitors and the children of the poor; that there is a want of courtesy and consideration which is not calculated to make the School Board respected and valued, and that medical supervision is absolutely necessary. There is no way, it appears to me, in which the system of the School Board can be properly carried out without it. Fully appreciating as I do the value of education and its important influence upon the social and moral condition of the people, I have seen clearly for many years that the School Board will be obliged to adopt some plan of medical supervision to prevent the evils of overwork, and what in my opinion is more important still, to prevent the serious

dangers now existing from the spread of contagious diseases to which I have no doubt the Board schools contribute more largely than is believed.

I am, Sir, yours, &c.,
ROBERT LEE,
Assistant Physician to the Hospital for Sick Children,
Great Ormond Street.

6, *Savile Row, W.*,
September 26, 1884.

[To the Editor of the Medical Times.]

SIR,—I have of late often been struck by the fact that mothers, coming to this hospital, not unfrequently attribute many of the minor ailments of their children, such as headache and the like, to the overwork and worry of school life. Though this belief might, at first sight, be thought merely a passing wave of popular feeling, it is undoubtedly widespread, and there often appears to be considerable foundation in fact for many statements which it is impossible for one to ignore altogether. One mother will attribute the headache, loss of appetite, and general malaise of her son—a bright and forward lad in the sixth standard at a Board School—to the lessons he has to prepare at night. These consist chiefly of sums, which frequently keep him up till ten p.m. Subsequently, his rest is much disturbed, and he is often heard talking of his evening lessons in his sleep. Again, a not uncommon answer to the inquiry as to the presence of delirium at night in a feverish child is, "Yes, he was talking about his school all night." Instances like these are often brought to my notice, and might be multiplied indefinitely. They indicate a deep-rooted feeling, or it may be prejudice, on the part of the mothers in reference to home-lessons, and the general worrying of children as the times of examination approach. The hours in school, they complain, are already sufficiently long, extending, with an interval of an hour and a quarter in the middle of the day, from a quarter to nine in the morning to half-past four in the afternoon. No one who has had any extended experience of the homes of many of these children in one of the poorer districts of London can consider the further addition of home-lessons in the evening to be anything but an unmitigated evil. Carried on as they must often be in most unsuitable surroundings, they can serve no true purpose of education, and produce a condition of mental distress and sleeplessness which, in a conscientious and painstaking child, must be productive of the most painful results.

Attention was drawn in your journal last week to the influence of over-pressure in schools on the production of chorea in children, and a striking case in point is at present under my own care. The child, Lucy D., aged 11 years, is the youngest of eleven children, in none of whom any similar affection has occurred. At the last school examination she failed to pass into the standard above, and of late has been very distressed, according to her mother's account, about her school work, more especially the sums, or, as the child herself expresses it, "She can do multiplication, but not long division." She has frequently complained of headache on her return home from school, and has slept badly. Previously she had always been intelligent, but very timid, and has had no rheumatism or other serious illnesses, and no cardiac bruit is audible. The choreic movements commenced a few weeks since, and are very marked, and the child is also somewhat strange in her manner. The mother can suggest no other possible cause but the worry of the school work, and there is no history of any fright or any other painful emotion.

The general impression left on my mind by the observations and enquiries I have made for some time past is, that the injurious effects are not the result of the mere intellectual work, but rather of the worry and anxiety attendant on the periodical examination, in the ineffectual struggle of a young and sensitive, and at the same time often weakly or underfed, child to cope with difficulties too great for its powers. In such cases, I venture to think, that further appeal by the parents should be permitted to a competent medical authority.

I am, Sir, yours, &c.,
FREDERICK WILLCOCKS,
Physician to Out-patients at the Evelina Hospital.

October 1*st*, 1884.

[To the Editor of the Medical Times.]

SIR,—If you will allow me to depart somewhat from the direct line of the subject upon which you invite correspondence, I should like to say a few words as to the study of the brain condition of school children, leaving the question of the causation of such conditions. I recently visited four schools for the purpose of trying to ascertain the present condition of the scholars, and found the following methods of procedure work well. Briefly stated they were as follows:

(1) Note the more permanent conditions of the child, signs of good or ill development; the state of nutrition; anæmia, probable condition of eyesight; the general signs of a healthy or unhealthy body.

(2) Note the movements and results of movements, steadiness of the hands when held out, special postures or movements of the head, hands, eyes, face, spine, etc.; these are the *direct* indications of the present nerve-muscular condition.

Such observations can be tabulated. One head master to whom I have demonstrated these methods is trying to make observations for himself in his school; the head mistress of a high school is making anthropometric observations among her girls. It seems to me that we must determine with clinical precision the present condition of a child before we can detect the cause of that condition. Such methods as those given above I have practised and taught for some years.

To know the average brain condition of school children is of national importance; we must know their physical as well as intellectual state, and some such enquiry on a scientific bases ought to be called for in the public interest.

I am, Sir, yours, &c.,
FRANCIS WARNER,
Late Physician to the East London Hospital for Children.

28*th September*, 1884.

[To the Editor of the Medical Times.]

SIR,—It is proverbial that statistics may be made to prove anything. Dr. Abercrombie's letter in your issue of to-day beautifully illustrates this statement. He finds that 11 per cent. of all children suffering from chorea are described as working hard at school or preparing for examination, and therefore argues that school work and chorea stand to one another in the relation of cause and effect. But supposing I wished to prove that hard work at school prevented rather than caused chorea, I would argue as follows: All children are compelled by law to attend school, and no doubt at least 20 per cent. would be described by their fond parents as hard working. We should therefore expect 20 per cent. of all cases of chorea to be thus described, but as only 11 per cent. belong to this class, diligence at their studies protects from chorea to the extent of 9 per cent. of all

cases. Again, children are examined annually for their "standard," and would describe themselves as working for examination for some six weeks out of the year; 12·5 per cent. of the children are thus working for examination while only 11 per cent. of the chorea cases belong to this class. The protective influence of examination work is thus exemplified!

I do not wish to discuss the question of so-called over-pressure, but am desirous of pointing out the difficulties which must attend any investigation of the subject. While a large proportion of all children attend school, an equally large proportion attacked by any particular disease must be school children. On investigation we should find that a certain percentage of children suffering from scarlatina would be described as hard working, and that a considerable number would be preparing for examination, but no one would, therefore, conclude that scarlatina is due to over work. It is, I think, important for us as medical men to refrain from hampering the great work of national education by advancing as facts theories which are devoid of all scientific accuracy.

I am, Sir, yours, &c.,

Leeds, September 27, 1884. A. F. McGILL.

SKELETON INTRODUCTORY ADDRESSES.

No. I.

PREPARATION FOR THE STUDY OF MEDICINE.

In choice of subject may seem a little belated, seeing that the most valuable opportunities of preparation are past for you, and perhaps lost. But medicine a life study and never too late to prepare. School preparation for study of medicine, not what it should be. Reasons. Once only two professions, Arms and the Church. In old and more lucid days preparation well adapted to each, though now inextricably mixed. Later on education passed entirely into hands of clerics, and everyone educated as if to become one, or else education became purely literary—Chinese. Reaction. Now our soldiers educated as if to be clergymen; clergymen often as if to be soldiers. Birth of science and rise of new professions; till lately unregarded by educationists. Better, far, were everyone educated as if to be a doctor than as if to be a priest. Science = sublimated common sense; scientific observation and method applicable to every study; different in this from literary education. Scientific warfare, scientific law, science of theology, science of politics; but not literary law, literary warfare, or literary medicine; in the one case adjective complimentary, in other the reverse. Observation and method; former essential. First catch your facts; cooking a subsequent operation. Appreciation of "method" a late mental development; logic the final study in medical education. Hence scientific preparation consists mainly in training observation. "How to observe and what to observe, in the past and in the present, is the ever-recurring function of education through life." (Cf. Lord Reay's address to International Educational Conference.) The training of observation neglected in school education; unaccountably so, except for persistence of old idea that intuition more important than inference. Observation, a function of special sense. Training of eye; degeneracy of civilized eye-sight. Physical sight and intellectual sight. Training different in each case. Physical sight; training of accommodation; games. Intellectual sight; best training secured by reproduction of impressions; drawing, painting, description. Quotation from Ruskin. Clinical case-taking a grand preparation; but why not imitated in school education? Much truer training, for boy to describe his play-fellows, his school-room, his games than to write themes or verses on love of country. Training of hearing; this sense especially susceptible of culture and degeneracy; stethoscopists out of practice. Country life the best educator of hearing for boys. How many of you have learnt to know one bird's call from another? Not a mere accomplishment. Senses of smell, taste, and touch. The "tactus eruditus"—why not learnt at school? Smell, a very useful sense, especially for a doctor. Instances of diagnosis by smell. Smell of bloods of different animals. Smell, a sentinel. Quote Plato. Smell also best educated in country. Training of senses in combination, and in combination with muscular action. Sight and movement, drawing, laryngoscope: hearing and movement, musical instruments, percussion. Such training lost sight of in typical school education. Workshops in schools, a modern innovation with the highest scientific sanction. Training of memory. The kind of memory required in medicine very different from that required to remember Latin verses and historic dates. Visual, auditory, and tactile memory. Illustrations and anecdotes. All the above acquirements, though essential, only preparatory to exercise of intelligence — the tools and not the finished work. But more eminently cultivable than the higher powers of mind. A good observer may be made; a correct thinker is born. Do not then be despondent. If nature has deprived you of her "nascitur," she holds out to you boundless possibilities in her "fit." Fact is fact. Inference is, well, only inference.

No. II.

THE ART OF WORK.

Introductory Address—a compound of experience and prophecy. Experience of the teacher who has been a student: prophecy as to the student who may become a teacher. Nowadays prophecy considered reliable only when it reflects experience; you will become more familiar with this and other forms of reflex action as your studies advance. Experience of all kinds must be bought; is best and most cheaply paid for by honest work. His work often bewilders first year student by its scope and apparently inconsequent variety. This a false impression; all departments of his work connected; none self-limited; all inter-dependent. Similarly, no man's knowledge lies in a ring-fence—each learns of, for, and with others, no less than for himself. "Borderlands of Science," Borderlands of Work; both fascinating; both rich—for those so trained as to utilise them. Work in this sense not simply reading, or lectures, or dissection, nor all these together; but training of all the faculties. Dependent on method. See, observe, "Eyes and No Eyes"; gather, collect; note, examine, classify; digest and assimilate—make one's own. Must be to some extent omnivorous; should not be greedy,—"Enough as good as a feast," and, for the next day, much better. Surfeit entails indigestion; the chronic intellectual dyspeptic the most hopeless of invalids. So, true work includes care of body; care of implies respect for; respect incompatible with abuse. Main difference between the amateur and the skilled workman—the latter keeps his tools constantly in better order, and can thus turn out better work. Better to wear out than to rust out; but better still to wear well, long, and usefully. Hence value of social intercourse; its risks. Students' Clubs—their use and abuse. Work and recreation—recreation and work; in a perfect system the terms would be interchangeable. Necessity for caution, as to both men and things. Given a fact, find the explanation

of it—but is it a fact? Given an authority, accept his dicta, but is he an authority? Honesty in learning; honestly enquire into the truth, honestly accept it when found. Much must be taken on trust, but distinguish between facts and even honestly deduced conclusions. Your present duty is to lay a foundation; upon its stability and breadth must depend the value and security of that superstructure which your work in after life will rear.

No. III.

CONDITIONS OF FAILURE AND SUCCESS.

Welcome! Smiling young faces before me, carry one back to one's own first year. Wonder where you will all be ten years hence: may safely predict not all so smiling and hopeful as to-day. Most no doubt settled down into steady, serious, responsible practitioners; some diverted into happier or less happy grooves; a considerable percentage unsuccessful at examinations; a few, let us hope a very few, broken down in health—fallen from the ranks. Statistics: students annually entered and practitioners annually registered; pass and pluck lists; estimate of invaliding; Nature's pluckings. Survival of fittest; brain and body. Health a condition of success. Instances of celebrated medical men who have achieved success by help of good digestion. Instances to the contrary. Living by rule. People who have to do it, not to be envied. Mr. Gladstone and Mastication. The healthiest man, one who can adapt himself to his environment; approximating to colour of his surroundings like an animal. Limitations. A gentleman practising amongst the poor, a genius amongst the commonplace, not to sink to their level. Temptations of educated men living amongst uneducated ones. Want of intellectual stimuli; too often replaced by stimulants of other kind. Bush doctors. Other temptations; intellectual arrogance. Self-confidence and self-distrust; both necessary. Distrust of others, also necessary—not of their character but of their opinions. Healthy scepticism, and unhealthy scepticism. Unhealthy when it discourages one in searching for all the facts of a problem. Problems and theorems in medicine; Q.E.D., and Q.E.F. Answers to both not always attainable by the same mind; the diagnostician and the therapeutist. The theorems of diagnosis, and the problems of treatment, however, much more similar in nature than usually believed. Therapeutic "tips." More valuable to the patient than to one's own self-culture. Represent essentially symptomatic treatment. Medicine a science in proportion as it enquires into the relation of cause and effect. Treatment that only aims at palliating or antagonising effect not really scientific. Prevention the highest function of scientific medicine. Prevention of getting plucked not the highest function of scientific studentship. Much the same relation between study for examination and study for life's work, as between treatment and diagnosis. Both necessary, but hope you will all bear in mind that the latter is the more important.

No. IV.

BEING AND SEEMING.

Preface remarks with few words of welcome. Audience not entirely composed of strange faces; many stages of experience represented; some far greater than my own. All intent upon work in their various positions; to all a welcome. Old and young alike have a common object in view; some have attained to its fulfilment, others midway in the race; their example should be followed, but their method must be studied. A scientific committee now investigating methods which lead to old age. Let us collectively investigate art of success in life; distinguish clearly between notoriety and success. The former dependent upon what men say of you, the latter upon what men think of you; these things very distinct. Genuine success only follows genuine work, but the work must be applied in right direction; first aim of student to pass his examination; that a wrong direction; aim should be to learn subjects thoroughly; the rest will follow; start with firm grip of elementary subjects—that essential to success. Glories of London M.D. will not compensate for ignorance of ordinary anatomy. Surgery and Medicine studied in two ways—from books and from patients; the study of latter will repay you best; a sound and extensive acquaintance with them will render you free from any examinational terrors. Note-taking; volumes of notes of lectures only monuments of misapplied industry; careful records of personal observation will enable the student to teach the physician in after years. Habit of accurate observation one great secret of success; all great advances in science made by its means. Beware of theories; stick to facts. Professional talk, always popular among doctors, apt to lead to professional scepticism. Disbelief in efficacy of drugs too often exaggerated; the sick doctor always takes physic. Value of other people's opinions—generally depreciated at first and over-estimated afterwards. Never accept opinions at second-hand. Reputation in medicine is easier to lose than to make. Professional etiquette is capricious; hero-worship prevails. Junior men apt to copy their seniors too closely; vaulting ambition frequently o'erleaps itself from that cause alone. Medicine no longer to be practised as a mystery, hence the appearance of supernatural wisdom no longer essential at the bedside. Thorough investigation always appreciated; treatment generally suggests itself; if successful, make a note of it; but let others advertise it in public.

No. V.

THE DOCTOR AS ENEMY AND THE DOCTOR AS FRIEND.

After compliments; reference to well-known engravings "Death as the Enemy," and "Death as the Friend." The doctor viewed by different classes in the same lights; enmity and friendship, however, depend not on varying character of the doctor, who is uniformly a friend, but on mental pre-occupation of his critics—on medium through which he is seen. (1) The doctor as enemy. Prejudice against him (*a*) selfish (*b*) sentimental. (*a*) *Selfish.* Death in the woodcut, disturbing a revel. Similar part played by doctor. Warnings against drunkenness, gluttony, dirt, debauchery, sloth, avarice, overwork, fashionable distortion, &c., &c. The doctor the forerunner and, if heeded, the averter, of disease and death. To fools, an enemy. Illustrations. (*b*) *Sentimental.* Interference here not with selfish and senseless appetites but with sentimental preconceptions, often with a nucleus of sense. Here doctor regarded not in individual, but in collective capacity. General anti-scientific bias strengthens most of these enmities. Instances—Vaccination; Vivisection; Contagious diseases; Sanitary reform: Hygiene of Education; Notification of infectious disease, &c.; "Doctor-ridden," analogy from "priest-ridden." Where analogy fails. Question of *authority;* in priest's case final and indisputable; in doctor's case provisional and disputable, the evidence for it being open to all. Enmity therefore unreasonable. How

to diminish it? By approximating general education to medical. (2) The Doctor as Friend. (*a*) Individually. Pleasant relation of doctor to patient. Trust and gratitude. Obligations entailed by them. (Room here for considerable amplification). (*b*) Collectively. Doctor's place in State. Relation to State should resemble relation to private patient. Not so in practice. Trust and gratitude, conspicuous by absence. Instances not far to seek. Inadequate recognition of public services. Jenner, Parkes, Farr. Further considerations. The doctor, like Death, sometimes called in too lightly. Comparison between suicide and too facile resort to medical advice. Both result of nerve degeneracy. Modern neuroses. Fallacy of regarding them as modern. (Cf. Dr. George Cheyne on "The English Malady, or a Treatise of Nervous Diseases of all kinds." London: 1733). Concluding considerations. What the doctor can learn of his familiar, Death. To be no respecter of persons. Fearlessness of it and obedience to it. The euthanasia — ethics of. Anecdote of Napoleon at Jaffa; Dr. Desgenettes' reply to him. Peroration.

MEDICAL NEWS.

Calendar of the Royal College of Surgeons of England.—This annual compilation has just been published by the Council of the College, and with the usual care. From it we make the following analysis, which we think will be interesting not only to the Fellows and Members of the College, but to the profession generally, and indeed to the public, who will learn from it that there is no scarcity of doctors to look after their health, seeing that there is a small army of no less than 17,675 fellows and members on the roll of this one institution. Beginning with the Fellows of the College we find there are now 1,166, including 611 who have obtained the honour after undergoing the severe examinations; there are five who have been elected as members of twenty years' standing, under Section 5 of the Charter XV., Vict.; and three *ad eundem* fellows, viz., two from the Irish and one from the Scotch college. There are 16,509 members; the Licentiates in Midwifery remain at 969, the examinations for this distinction having been suspended for the last eight years. The Licentiates in Dental Surgery now number 553. The Board of Examiners in Anatomy and Physiology consists of nine members, annually elected by the Council from the Fellows of the College. It conducts the *Primary* examinations in Anatomy and Physiology for the diplomas of Fellow and Member, and during the past collegiate year has held eight meetings for the fellowship and forty-seven for the membership; at the former there were 134 candidates, of whom only 56 passed, 78 being referred for six months. For the primary membership there were 1,108 candidates, 733 of whom passed, whilst 330 were referred for three months, and 45 for six months. The fees received from the candidates for this examination amounted to 6,139*l.* 7*s.*, the Board receiving in fees 2,618*l.* The Court of Examiners consists of ten members, also elected by the Council from the Fellows of the College, all of whom however are members of the Council, except Dr. Humphry. During the past year the Court has held two meetings for the fellowship, and forty-five for the pass-examinations for the membership: at the former there were 45 candidates, 30 of whom passed, 15 being referred for twelve months. For the membership there were 804 candidates, of whom 348 were successful, and 303 rejected, viz., 77 for three months, 212 for six months, 11 for nine months, and 3 for twelve months. The fees paid by candidates amounted to 10,431*l.* 5*s.*; the fees paid to the Court of Examiners amounted to 4,707*l.* 12*s.* The Board of Examiners in Dental Surgery has held three meetings for the examination of 30 candidates, 22 of whom received their diplomas: the fees paid by them amounted to 346*l.* 10*s.*, of which the Board received 110*l.* 5*s.* The income of the College from all sources during the past year amounted to 22,111*l.* 10*s.* 9*d.*, derived principally, as already shown, in fees paid by candidates for the diplomas of the College, viz., 16,917*l.* 7*s.* Rents from chambers adjoining the College produced 1,530*l.* 18*s.* Fees paid by Members of the College on admission to the Fellowship, which formerly yielded a large amount, is set down as producing for the year only thirty guineas. Dividends on Stock amounted to 1,182*l.* 19*s.* 3*d.* From members of the Council and Court of Examiners on their election, 63*l.* The expenditure for the year amounted to 20,046*l.* 7*s.* 4*d.*, the largest item being in fees paid to members of the Court and Boards of Examiners, viz., 7,435*l.* 17*s.* The next largest amount appears in Salaries and Wages for the officers and servants of the College in the three departments, Library, Museum, and Office, viz., 3,784*l.* 14*s.* Taxes, Rates, Diploma Stamps and Insurance absorbing the large sum of 1,469*l.* 9*s.* 3*d.* In the extraordinary expenditure 700*l.* appears in honoraria to Dr Goodhart, and Messrs. Trimmer and Doran; under miscellaneous items 431*l.* 11*s.* 6*d.* appears as having been expended. There appears the respectable balance at the banker's of 2,065*l.* 3*s.* 5*d.* The metropolitan hospitals are represented on the Council by Messrs. J. C. Forster, *President*, T. Bryant, and A. E. Durham, *of Guy's*. *St. Bartholomew's* by Sir J. Paget, Bart, F.R.S., W. S. Savory, F.R.S., *Vice President*, H. Power and T. Smith. *St. George's* by T. Holmes, *Vice President*. *University College* by J. E. Erichsen, F.R.S., J. Marshall, F.R.S., C. Heath, and M. B. Hill. *King's College* by Sir J. Lister, Bart., F.R.S., and J. Wood, F.R.S. *The London* by J. Hutchinson, F.R.S. *The Middlesex* by J. W. Hulke, F.R.S., and G. Lawson. *St. Thomas's* by Sir W. MacCormac, J. Croft, and S. Jones. Sir T. Spencer Wells, Bart., and Messrs. W. Cadge, W. Allingham, and E. Lund are not attached to any of the recognised metropolitan hospitals. The oldest Fellow of the College is Mr. J. M. Arnott, F.R.S., a late President of the College, who was admitted a Member of the College so long ago as April 4th, 1817, and as he must have been 22 years of age at the time, he is consequently in his 90th year.

Poisoning by Canned Foods.—This subject was recently brought before the Medico-Legal Society of New York by Dr. J. G. Johnson, and discussed thereat at some length (*Medico-Legal Journal*, Vol. 2, Nos. 1-2). His attention was called to the subject by the occurrence of symptoms of irritant poisoning in a family of six persons who had partaken of some canned tomatoes for luncheon. About two hours after this they were all seized with pain in the pit of the stomach, intense thirst, dryness of the throat, retching and tenesmus. The family at the time consisted of the mother, her two daughters, two sons and a nephew; the boys all recovered in course of a day or so. The eldest daughter, who suffered most severely, had most violent tenesmus, and remained in a comatose state for several days, passing a good deal of blood by the bowel. Eventually they all recovered, and unfortunately the evacuations were not examined in any of the cases. By a process of exclusion it was shown that none of the other articles of food taken at luncheon on that day could have poisoned them, and the symptoms had come on in them all so definitely and so soon after the luncheon that the tomatoes were naturally suspected of being the cause. The tomatoes were not spoiled, as would naturally suggest itself to anyone as the most likely explanation, and for the following reason. When the food has been placed in the can and the lid soldered on, the goods are "processed." That is, they are put into a steam bath and submitted to a heat of about 250° F., till a pressure of 25 lbs. to the square inch is created in the can. An awl is then thrust through the centre of the cap and the gases are allowed to escape. The can is then soldered while hot; when it cools down the heads bulge in and stay in. If decomposition set in the heads would bulge out again, in such a case another hole would be made in the cap and the gases allowed to escape, the cap being then again resoldered; cans which had been thus treated were known in the trade as "swells," and could always be recognised by having two holes instead of one. The can from which these tomatoes had been taken had

only one hole. But even if the tomatoes had been spoiled the cooking would have prevented their doing any harm, so that the poisonous symptoms could not be due to decomposition of the tomatoes. It was found out that the daughter who suffered most severely had soaked her bread in the juice and had not eaten any of the solid part, the mother had done the same but she had not eaten much because she did not like the taste, she had noticed too that the colour of the tomatoes was rather a faded red, but she had not thought anything of it. On taking the cap to a tinsmith Dr. Johnson learned that the cap was not fastened to the head by a resin amalgam as the sides were, but that the amalgam was made of muriate of zinc; pieces of zinc were placed in muriatic acid till the acid could no longer attack the zinc, and this saturated solution of muriate of zinc was painted into the groove of the head of the can. The cap was then placed on and clamped whilst it was being soldered down. If too much acid had been applied to the groove then as the tin expanded with the heat, it (the acid) would be forced into the can, as it could not escape on the outside. On examination of the tin in question the inside of the head was found to be dull when compared with the rest of the can, owing, as Dr. Johnson considered, to the acid having got inside and attacked this part of the tin, so that a muriate of zinc and tin had been formed, and it was this which, being present in the juice especially of the tomatoes, had given rise to the symptoms of poisoning. Amongst the conclusions which he arrived at were these, viz: that these cases were of poisoning from muriate of tin and muriate of zinc, and that this poisonous amalgam ought to be abandoned; and further that every cap that had two holes in it should be rejected, and also every article of canned food that did not show the line of resin around the edge of the can, the same as was seen on the seam at the side of the can. An animated discussion followed in which several representatives from the houses in the canned food trade took part and expressed pretty strongly their objections to Dr. Johnson's criticisms. One speaker pointed out that the solution of muriate of zinc that was used was a very weak one and expressed the opinion that if it had any effect at all it would probably be a beneficial one. Another speaker said that the presence of two holes in the cap was no proof that the can had been re-processed, as several dealers were in the habit of opening their goods twice to ensure their keeping. And they nearly all called attention to the fact that Dr. Johnson had no chemical evidence in support of his theory, a deficiency which he accounted for by the fact that there was not enough left in the can to test, and the evacuations had unfortunately not been kept. A committee was appointed to enquire into and report upon the subject of canned fruits. The importance of the question thus raised will be gathered when it is stated that sixty millions of cans are annually exported. Professor Reese sent a letter to the Editor of the *Medico-Legal Journal* expressing the belief that the poisonous symptoms in such cases as those referred to by Dr. Johnson were more likely to be due to the action of a ptomaine than to poisoning by a mineral acid such as zinc chloride. Major-General J. P. Hawkins (U.S.A.) has expressed his views on this subject in the trade organ, and is very strongly of opinion that there is no ground whatever for the present outcry against canned foods. His contention is based mainly on the experience of the army, where canned foods are used to a very large extent. He states that no cases have ever occurred in the army in which bad symptoms arose through eating canned foods, and expresses the opinion that in those cases amongst civilians in which symptoms of poisoning are said to have occurred it would probably be found that the meat had been spoiled, and so spoiled as to be obviously unsound to the most casual observer; if under such circumstances people will eat the meat, he says they must expect to be ill, just as they would be if they ate a piece of tainted butcher's meat.

Royal College of Surgeons. — The library and museum of this institution were re-opened on Wednesday last, the 1st instant.

John Hunter.—Tuesday, the 14th instant, will be the anniversary of the death, in 1793, of the immortal Hunter.

Medical Sickness, Annuity, and Life-Assurance Society.—The first meeting of the Executive Committee of the Medical Sickness, Annuity, and Life-Assurance Society, since its formal election at Belfast, was held on Wednesday last, at 38, Wimpole Street. Mr. Ernest Hart (Chairman) presided. There were present Dr. Ord, Mr. Septimus Sibley, Mr. Major Greenwood, junior, Dr. Dolan (Halifax), Dr. Clibborn, Dr. F. de Havilland Hall, Mr. E. Noble Smith, Mr. Brindley James, Mr. Edward Bartlett, Mr. Wallace, Mr. Radley (Secretary). The minutes of the last executive meeting were read and approved. It was reported that 72 new members had been enrolled since June 30th, making a total of 567. The receipts since June 30th were reported to amount to 1,350*l.* 2*s.* 4*d.* (entry-fees, 37*l.* 16*s.*; and premiums, 1,312*l.* 6*s.* 4*d.*) The total amount of funds in hand had reached the sum of 2,782*l.* 10*s.* 9*d.* It was stated that the society had already received one sickness-claim, on behalf on which 4*l.* 10*s.* had been paid; the chairman's previous proposal that they should invest at least 2,000*l.* of the reserve-funds in hand having been approved, a list of the most approved securities was now presented; and it was unanimously decided to invest 2,500*l.* in first-class guaranteed securities of one of the English trunk-lines, in accordance with the conditions of the trust. It was resolved to send a neatly bound copy of the new rules to each member, free of charge. It was decided to hold the meetings of the General Committee of the Society on the same date as the meetings of the General Council of the British Medical Association; the first meeting to be called for October 15th, at 5 p.m.; and future meetings of the Executive Committee to be held on the second Wednesday in each month. The chairman reported that the premium income of the society now amounted to upwards of 6,000*l.* a year, and the rigid economy exercised in keeping the management expenses down to the lowest point, had enabled them to keep considerably within the margin of the management expenses usually calculated, and estimated by the actuary for the management of such societies. A handsome balance had already been secured to the credit of the management account. The financial result for the first half year's work was extremely satisfactory, and it was still more satisfactory to know that the society, being strictly mutual, the whole benefits accrue to the members. It was reported that letters had been received from Mr. C. H. Watts Parkinson, Wimborne Minster, stating his intention of bringing the society's aims and objects before the notice of the West Hants and Dorset Branch of the British Medical Association; from Dr. Alexander Dempsey (Belfast), offering to adopt the same course before the North of Ireland Branch; from Dr. De Vere Hunt, stating that Dr. Brierley had announced his intention of bringing the matter before the Manchester Medico-Ethical Society. It was further reported that, in response to an invitation, Mr. E. Noble Smith had undertaken to read a paper on the objects and benefits of the society at the West London Medico-Chirurgical Society on Friday, November 7th. Other communications were brought before the committee, and the secretary instructed with respect to them. The chairman congratulated the members on the solid progress of the society, and on the large career of usefulness which was opening before it, and the proceedings terminated.

The Josephinum Academy at Vienna.—The *Times'* Vienna correspondent states that the proposed revival of the Josephinum Medical Academy seems to meet with the greatest opposition. It was abolished because it did not answer its purpose of supplying a sufficient number of efficient medical men and surgeons, and because with the introduction of the general liability to military service a sufficient number of surgeons well taught in the public schools, and with considerable practical experience in the hospitals, were placed at the service of the army. When the Josephinum was built and endowed, the Austrian army was not one-tenth part so effective as it is now. Surgery and medical science, too, were in their infancy, nor did any one think much of the sanitary condition of the army, or even of the country in general. The revival of the hospital now would certainly be a curious anachronism.

NAVAL MEDICAL DEPARTMENT.—The following appointments have been announced: Fleet Surgeon—William J. Eames, to the *President*, additional; E. J. Butler, M.D., to the *Achilles*. Staff Surgeon—Robert W. Biddulph, to the *President*, additional. Surgeon—Otway P. Browne, to the *Asia*. Surgeons—Fredk. A. Trevor, to the *Indus*; Theodore J. Preston, to the Royal Marine Division at Chatham; Bowen S. Mends, to the *Téméraire*; John S. Thomas, to the *Superb*; Paul B. Bookey, to the *Hector*.

MEDICAL SCHOOLS.—At Guy's Hospital the Entrance Scholarship of 125 guineas in Arts has been awarded to Mr. Alfred Parkin, and that of 125 guineas in Science to Mr. James McDonald Gill. At the St. Mary's the Scholarships in Natural Science of 75*l.* each have been awarded to Mr. W. G. Holloway and Mr. F. W. Lewitt, and those of 50*l.* each to Mr. C. Graves, Mr. A. M. Hickley, and Mr. C. G. Mack. At University College the Medical Entrance Exhibitions have been awarded as follows:—100*l.* H. Caiger; 60*l.* H. M. Fernando; 40*l.* S. V. J. Brock. At the London Hospital College the Entrance Scholarship, of the value of 60*l.*, has been awarded to Mr. William S. Fenwick; and that of the value of 40*l.* to Mr. J. H. Sequiera.

APPOINTMENTS.

BOSWELL, JOHN IRVINE, M.R.C.S. Lond., and L.R.C.P.—Medical Officer to the First District, Faversham Union, *vice* Dr. W. E. B. Atthill, resigned.

GORDON, JOHN JOSEPH, L.R.C.S. and L.R.C.P. Edinb.—Medical Officer to the Infirmary and the Workhouse of the Hackney Union, *vice* Mr. J. C. Garman, resigned.

JELLY, F., A.M.B. and C.M.—Assistant Medical Officer to Wynford House Hospital for the Insane, Exeter, *vice* W. A. Moynan, M.D., resigned.

JOHNSTON, F., M.B., C.M. Glas.—Honse Physician to the Northern Hospital, Liverpool, *vice* E. W. Roughton, M.B. Lond., M.R.C.S., resigned.

KITE, E. W. D., M.R.C.S., L.S.A.—Honse Surgeon to the West Bromwich Hospital, *vice* R. K. Delancy, resigned.

MARTIN, J. P., M.R.C.S.—Junior Assistant Medical Offieer to the Wilts County Asylum, Devizes.

MCWILLIAM, ALEX., M.B., M.C. Aber.—Senior Assistant Medical Officer at the Somerset and Bath Asylum, *vice* W. C. Beatty, M.D. Durham, resigned.

PINK, THOMAS, M.R.C.S. and L.S.A.—Medical Officer to the Weldon District, Oundle Union, *vice* Mr. S. Stokes, resigned.

ROBBES, C. E., B.Sc. Lond., B.A. Camb., M.R.C.S.—Honse Surgeon to the Gravesend Hospital, *vice* R. J. Bryden, M.R.C.S., resigned.

SMALL, THOMAS, L.R.C.P., L.R.C.S. Edin.—Medical Officer to Tenth District, Hexham Union, *vice* Mr. C. J. Connon.

TREVES, FREDERICK.—Surgeon to the London Hospital, *vice* Mr. James Adams, resigned.

VACANCIES.

BRISTOL GENERAL HOSPITAL.—House Surgeon. Salary, £120 per annum, with board, washing and residence in the house. Candidates must be Members of the College of Surgeous of London, Edinburgh, Glasgow or Dublin, and also Licentiates of the Apothecaries' Company of London or Dublin, or some other recognised medical qualification and must produce testimonials of good moral character and ability and must send certificate of registration. Applications to be sent to the Secretary, on or before October 27th.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer and Dispenser. (*For particulars see Advertisement.*)

CHARING CROSS HOSPITAL, STRAND, W.C.—Assistant Physician. Also, Anæsthesist. (*For particulars see Advertisement.*)

DEWSBURY AND DISTRICT GENERAL INFIRMARY, DEWSBURY.—House Surgeon. Salary to commence at £80 per annum, with board, residence in the Institution, and washing. Candidates must be duly qualified in Medicine and Surgery. Applications with copies of testimonials to be sent to the Secretary, on or before Oct. 6th.

MALE LOCK HOSPITAL, 91, DEAN STREET, SOHO.—Resident House Surgeon. Salary, £50 per annum, with apartments and board. Applications with testimonials to be made to the Secretary, Female Lock Hospital, Westbonrne Green, Harrow Road, up to October 6th.

MANCHESTER TOWNSHIP.—Medical Officer to the First District, *vice* Mr. Robert Manners Mann, deceased. Salary, £200 per annum.

NORTH SHIELDS AND TYNEMOUTH DISPENSARY.—Housc Surgeon and Dispenser. Salary, £130 per annum, with house, coals, water and lighting. Candidates mnst be legally qualified. Private practice prohibited. For further information apply to the House Secretaries, to whom applications with testimonials are to be sent before October 15th.

RICHMOND HOSPITAL, SURREY.—House Surgeon. Salary, £80 the first year, with an annual increase of £10 to £100, with board and furnished apartments. Candidates must be medically and surgically qualified and registered uuder the Medical Act. Copies of testimonials, not exceeding six in number, to be forwarded to the Secretary, on or before October 10th.

ST. NEOTS' UNION.—Medical Officer to the Third District, *vice* Dr. Walker, resigned. Area, 3,854 acres. Population, 438. Remuneration by fees.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates mnst be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28.

DEATHS.

BEACH, H. J., Brigade Surgeon, Her Majesty's Indian Army (retired), at Maryville, St. George's Road, Cheltenham, on September 29th, in his 52nd year.

CORY, W. G., B.A., M.D., at 27, West Mall, Clifton, on Sept. 25th, aged 57.

JACKSON, EDWARD, M.D., at Longsight, Manchester, on Sept. 24th, aged 82.

MASH, J., F.R.C.S., at 4, St. Giles's Square, Northampton, on September 27th, aged 87.

ROE, E. T., M.D., at 18, Kensington Crescent, W., on Sept. 28th, aged 64.

NOTES, QUERIES, AND REPLIES.

[TO THE EDITOR OF THE MEDICAL TIMES.]

WISE BIRDS.

SIR,—I notice in your article on the Appendix to the Report of the Army Medical Department, that Surgeon-General Irvine remarked upon *the cessation of bird life* at the commencement of the cholera epidemic in Egypt. A correspondent in the *Standard* of September 27th, informs us that the disappearance of birds during the plague at Athens, was observed by Thucydides, who is supposed to refer chiefly to vultures. Bnt Lucretius, speaking of the same event, says "birds were hardly to be seen at all." It would be interesting to ascertain if *all* bird life ceased at the ontbreak of the Egyptian cholera. I take it that the birds disappeared, and not that they ceased to live; and if so, it would be reasonable to suppose that the birds fled to avoid a poisonous atmosphere, rather than imagine that instinct enabled them to detect "comma-shaped bacilli" in the unfortunates who were doomed to be the victims of the terrible epidemic.

I am, Sir, yonrs &c.,
SENEX.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Will you kindly inform me, through the medium of your columns, respecting the best means of preserving pathological specimens? As it is of paramount importance to have as little bleaching as possible, will you please advise me respecting the requisite strengths of solutions of boro-glyceride, corrosive sublimate, hydrate of chloral, rectified spirit or other matter that may be made use of?

I am, Sir, yonrs &c.,
L. GREY THOMPSON,
M.D., Snpt.

Launceston General Hospital, Tasmania, 2nd August, 1884.

[WITH regard to the various fluids used for monnting animal tissues none fulfil the requirement of retaining the specimen's original colour, and this for the simple reason that every specimen must be thoroughly cleansed before being mounted, otherwise the fluid would be so turbid as to prevent examination of the contents of the jar. We might suggest the adoption of a system of pseudo-tanning, with which in a few cases we have had some success. By soaking the viscus in a strong solution of carbolic acid and glycerine the colonr has been rendered fairly permanent. The first effect of this is to render the organ hard and white, bnt after the specimen has been immersed in spirit for a few days the original colour returns. There are patent fluids, as for example, Wickersheimer's solution, &c., which are said by their vendors to give excellent results. These have made no headway, for, in addition to their dearness as compared with spirit, they have not been found to work well in practice. We believe that a 5 per cent. solution of boro-glyceride has been recommended, but we cannot testify to its merits. It is quite possible that it may be worth a trial. Pure glycerine has considerable merit, especially with joints and bones. Hydrate of chloral we believe is chiefly used for vegetable preparations. Bnt nothing has been found to supersede spirit in preserving specimens. It is, however, useless to try to prevent its bleaching action; in fact, to make a specimen look well when mounted, the opposite course must be adopted, that is, the tissne should be quite blanched before it is put up. A strength of from five to ten degrees over proof is usually found most suitable for ordinary purposes.

Lastly we might mention that the neatest and easiest method of sealing up the jars is with a mixture of gelatine and acetic acid. This preparation has the additional advantage of allowing the glass top to be easily removed from the jar by the application of heat.—EDITOR *Medical Times*.]

Dr. A. H. Bampton, Plymouth.—The lithograph of "The Anatomy Lesson" may be obtained by applying to E. H. Schroeder, 137, Möckernstrasse, Berlin, S.W. The price is under five shillings.

COMMUNICATIONS RECEIVED—

Dr. Champneys, London; Mr. Wynter Blyth, London; Dr. D. W. Finlay, Helensburgh; Dr. Goodhart, London; Dr. F. Warner, London; Mr. A. F. McGill, Leeds; Mr. J. T. W. Bacot, Seaton, Devon; Mr. Alfred Craske, London; Mr. W. Stephenson Richmond, London; The Secretary of the College of Medicine, Newcastle-upon-Tyne; The Sanitary Commissioner for the Punjab, Lahore; The Hon. Secretary of the Clinical Society of London; The Hon. Secretary of the Royal Medical and Chirurgical Society of London; The Hon. Sec. of the Pathological Society of London; The Registrar-General, London; Dr. Ashby, Manchester; The Registrar-General, Edinburgh; Dr. Hebb, London; Mr. Fredk. Treves, London; The Hon. Secretary of the Hunterian Society, London; The Secretary of the Medical Sickness Annuity, etc., Society, London; Dr. A. H. Bampton, Plymouth; Our Dublin Correspondent; The Dean of the St. Mary's Hospital Medical School, London; The Secretary of the Pharmaceutical Society of Great Britain, London; The Secretary of University College, London; Dr. Eustace Smith, London; Dr. Quain, London.

BOOKS RECEIVED—

Recent Pathology, &c., by J. W. Hayward, M.D.—Cases of Reflex Cough due to Nasal Polypi, &c., by J. N. Mackenzie, M.D.—Coryza Vasomotoria Periodica, by J. N. Mackenzie, M.D.—The Seventh Congress of the Sanitary Institute of Great Britain—The Sanitary Chronicles of the Parish of St. Marylebone during July, 1884—Anatomische Vorlesungen für Aerzte und ältere Studirende, von Dr. Ad Pansch—Report on the Outbreak of Enteric Fever in Royal and Western Infirmaries and Fever Hospital, Belvidere, Glasgow, in August, 1884—The Encyclopædic Dictionary, Part 9—Magnetism and Electricity, by C. J. Woodward, B.Sc.—Acoustics, Light, and Heat, by C. J. Woodward, B.Sc.—Materia Medica: Physiological and Applied—Proper Medical Education, by Henry Leffmann, M.D.—The Social Code, by George Ager, LL.D.—Elements of Physiological Physics, by J. M'Gregor-Robertson, M.A., M.B., C.M.—On the Condition of the Fundus Oculi in Insane Individuals, by Joseph Wiglesworth, M.D., &c.—Cholera Treatment and Cure, by Kenneth Henry Cornish — Surgical Handicraft, by Walter Pye, F.R.C.S.—Man not a Machine, but a Responsible Free Agent, by the Rev. Prebendary Row, M.A.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin — Philadelphia Medical News — New York Medical Journal—New York Medical Record — The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften — Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Revue d'Hygiène—The American Journal of Obstetrics—Medico-Legal Journal—The Medical Temperance Journal—Edinburgh Courant, September 25th—Archives de Neurologie—Le Progrès Médical—Scienze Mediche—Canada Medical and Surgical Journal—Edinburgh Medical Journal—The Veterinarian—The Boy's Own Paper—The Leisure Hour—The Sunday at Home—The Girl's Own Paper—Friendly Greetings—The Medical Chronicle—The Practical Confectioner—Archives Générales de Médicine—The Birmingham Medical Review.

APPOINTMENTS FOR THE WEEK.

Friday, October 3 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

West London Medico-Chirurgical Society, 8 p.m.—President's (Mr. F. Lawrance) Address, and "A Case of Foreign Body impacted in the Foot;" Mr. Bernard Pitts, "Foreign Body in the Air Passages, followed by Abscess of the Lung—Recovery;" Mr. A. Litton Forbes, "Pharyngeal Deafness, its Pathology and Treatment, with analysis of cases;" Mr. Gunton Alderton, for Mr. M. Thompson, "Case of Retention relieved by Railroad Catheter—Fever—Death in three days."

Saturday, October 4.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, October 6.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, October 7.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, October 8.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Hunterian Society.—7.30 p.m.: Council. 8 p.m.: Address by the President (Dr. Robert Fowler.) Specimens of Bacillus Anthracis, by Mr. Walter Fowler. Cases of Anthrax, with specimens, by Dr. Pitt.

Obstetrical Society of London, 8 p.m.—Specimens will be shown by Dr. Potter and others. Papers—Mr. Hopkins Walters, "A case of post partum Avulsion of the Uterus, Right Ovary and Fallopian Tube, followed by Recovery;" Dr. Horrocks, "A Case of Rupture of the Uterus and Vagina;" Dr. Potter, "On a Case of Retained Product of Conception."

Thursday, October 9.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, October 10.

Clinical Society of London.—Dr. Haddon, "On certain Nerve Symptoms in Rheumatic Affections;" Mr. Croft, "Cases of Preputial Calculi;" Dr. Crocker, "On a Case of Urticaria Pigmentosa or Xanthelasmoidea;" Dr. Finlay, "On a Case of Perforation of the Vermiform Appendix;" Mr. Golding Bird, "On a Case of Dislocation of the Patella."

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MEDICAL TIMES

AND GAZETTE.

No. 1789. LONDON, SATURDAY, OCTOBER 11, 1884.

Contents.

REMARKS ON A CASE OF MECHANICAL CONGESTION OF THE LIVER, AND ON THE SO-CALLED NUTMEG LIVER, AS A RESULT OF INCOMPETENCE OF THE MITRAL VALVE.

By Professor v. BAMBERGER, Vienna.

Gentlemen,—I have lately brought under your notice several cases of disease of the liver, and to complete the series, I wish to-day to show you a case of mechanical congestion of that organ, the result of incompetence of the mitral valve. The patient complains of cough and expectoration, of short breath and general dropsy, which first appeared in his legs and subsequently in his abdomen. He is coughing a good deal, and his expectoration consists of small isolated opaque particles of a greenish colour mixed with a little mucus, but with no particular smell. On examining the sputum under the microscope, we find epithelial and pus cells and some mucous corpuscles. The chest walls are extensively œdematous, but the chest itself presents the usual configuration. The patient breathes mainly with his diaphragm; the chest walls indeed expand when he takes a deep inspiration, but their movements are not nearly so extensive as in the normal condition. We find no distinct dulness on percussion over any part of the chest, hence there is no congestion of the lungs. On auscultation of these organs we hear rough inspiration and dry crepitant râles with an occasional moist crepitus. From these symptoms we diagnose a diffused bronchial catarrh which extends to the minutest bifurcations of the tubes. The rough breath-sound is due to tumefaction of the bronchial mucous membrane while the dry crepitant râles show that at certain points in the lining of the bronchi there is a tough secretion, causing artificial stenosis of their lumen. From the moist sounds we conclude that the medium-sized bronchial tubes are occupied by loose collections of mucus, through which the air bubbles in expiration, and so gives origin to this phenomenon. You see that the præcordial percussion dulness extends over a large area, and measures more in the transverse diameter, than in the longitudinal, viz., 16 centimetres compared with 15. What are the conditions that may give rise to such an increase in the area of cardiac dulness? First, the increase may be produced by an enlargement of the heart itself, in consequence of dilatation, or hypertrophy, or a combination of these conditions, and this may occur on either side of the heart; usually we find that the auricle is enlarged as well as the ventricle. (2) An abnormal increase of the percussion dulness in the same region may be caused by fluid in the pericardium, due either to exudation or transudation. (3) There may be solid

tumours in this region; in such cases, however, the percussion dulness is usually irregular in outline. Where there is a collection of fluid in the pericardium the outline of the area of dulness differs from that found in the case of dilatation; the fluid first collects about the base of the heart and the area of percussion dulness assumes the form of a truncated cone. This is not so in the case before us. Further, if large quantities of fluid collect in the pericardium the action of the heart is diminished, its contraction not being felt and seen distinctly, as the liquid hinders the propagation of the impulse. As we do not find this condition here, we conclude that the abnormal increase of the cardiac area is caused by enlargement of the heart itself. Is the whole of the heart enlarged or only a part of it? If the left side of the heart only is enlarged, the enlargement takes place in the longitudinal direction, the chief axis of the left ventricle corresponding with that diameter; in such a case the transverse measurement is never longer than the longitudinal. In our patient the reverse is the case, the transverse diameter (16 centimetres) exceeding the longitudinal (15 centimetres), hence we infer enlargement of the right ventricle. The condition of the pulse will still further elucidate the point. If the left chamber is dilated or hypertrophied, it throws an increased quantity of blood into the arteries, giving rise to a full tense pulse. In our patient the pulse is small and very compressible. In dilatation of the left ventricle the aortic sounds, especially the second, are much accentuated; in dilatation of the right ventricle, on the other hand, the accentuation of the second sound of the pulmonary artery is greatly augmented. That this latter condition is present in our patient is further shown by his cyanosed appearance and by the enlargement of his liver in consequence of congestive hyperæmia, the blood of the superior and inferior venæ cavæ not being able to discharge itself into the right auricle in its usual way.

What kind of enlargement is present here, hypertrophy or dilatation? First, we know by experience that in the right ventricle dilatation is most common, whereas hypertrophy is chiefly met with in the left chamber, its walls being sometimes so enlarged as to measure an inch in thickness. In our case the percussion dulness is very much increased, which of itself suggests the presence of a dilatation.

On auscultation over the apex of the heart we hear during the systole a murmur with a rudimentary first sound; during the diastole there is neither a sound nor a murmur. Over the aortic cartilage both sounds are audible, together with a systolic murmur conducted from the mitral valve. Over the pulmonary cartilage we hear both sounds, the second sound being more accentuated than is usually the case. From the fact that the systolic sound at the apex is replaced by a systolic murmur, disregarding the insignificant rudimentary sound, we conclude that the mitral valve is incompetent, *i.e.*, that the segments of the valve are unable to prevent the blood from regurgitating into the left auricle. The latter chamber must therefore be considerably dilated, but we cannot prove it directly, owing to its situation, as in most cases it only comes in contact with the chest wall by its appendage. Stenosis of the left auriculo-ventricular orifice cannot be deduced from the conditions of the heart already mentioned, but can only be diagnosed if we hear a diastolic murmur over the bicuspid valve. In uncomplicated mitral incompetence the left ventricle is, in some cases, of normal size, in others it is a little larger, and the character of the pulse will depend on which condition is present. If the capacity of the left ventricle is normal, the whole quantity of blood which it contains is not thrown into the aorta on its contraction, and accordingly the pulse remains normal. If, on the other hand, the capacity of the left chamber is increased, the pulse may be nearly normal; for in spite of regurgitation into the auricle, a sufficient quantity of blood may be driven into the aorta. If, however, there is at the same time stenosis of the mitral orifice, the pulse presents conditions which are altogether abnormal. As in such a case the action of the heart is quicker than normal, the diastolic movement is of shorter duration, and the whole of the blood in the left auricle cannot pass in such a short interval through the contracted orifice, so that there is not so much blood as usual to be driven into the aorta. The pulse is therefore small in proportion to the degree of stenosis. As our patient's pulse is extraordinarily small and very compressible, we may diagnose, from the condition of the pulse itself, stenosis of the mitral orifice. In incompetence of the mitral valve, such as is present here, the right ventricle must work with a greater *vis a tergo*, in order to overcome the pressure in the pulmonary circulation. Hence we get hypertrophy and dilatation of the right ventricle and auricle, accentuation of the second sound over the pulmonary cartilage, and, finally, enlargement of the veins which run into the right auricle, viz., the superior and inferior venæ cavæ, and backward congestion of the liver.

The abdomen of our patient is distended, especially in the epigastric region. In the right hypochondriac region a hard body is felt, which extends as far as the umbilicus, and presents an outline like that of the inferior margin of the liver. The percussion dulness begins as high up as the nipple. The liver is therefore considerably enlarged, in consequence of the regurgitation of blood from the right ventricle and auricle.

There are two forms of hyperæmia of the liver: active or congestive hyperæmia, and passive or mechanical hyperæmia. Of the first much has been written, but even now we know very little about it. It may have its origin in an injury, it may also arise in consequence of the ingestion of excessive quantities of strongly-spiced food, and it may also depend on climatic conditions; in this case the blood assumes a venous quality, owing to its diminished content of oxygen, and collects chiefly in the portal vein. In severe forms of malaria there are symptoms which seem to point to active hyperæmia of the liver. The hyperæmia of the liver found in individuals who suffer from disturbances of menstruation, or from hæmorrhoidal losses is also supposed to be of an active character. But all these conditions are very difficult to explain, as they are never followed by death, so that we have no opportunity of getting a good and clear idea of their nature. The patients suffer from a feeling of pressure and heaviness, and from slight pains in the region of the liver. They are also distinguished by a slightly jaundiced skin, especially when they have lived in hot climates; they suffer from digestive disturbances, and their liver is considerably enlarged. If we find in such a case enlargement of the liver with pain, we may assume the presence of congestion.

Passive hyperæmic enlargement of the liver develops in most cases in consequence of heart and lung diseases, especially in the case of diseases which are associated with dilatation of the right ventricle. The liver in such cases is very considerably enlarged; it may reach quite low down in the abdomen. It is usually unattended by pain, but on firm pressure, or after bodily fatigue, it is apt to become painful. If the condition has lasted for a long time the patient does not complain of any pain, even on firm pressure. If the regurgitation is considerable, ascites may also develop, but it is then ordinarily general dropsy caused by a diseased heart. The liver in such cases presents a characteristic appearance, which we call "nutmeg liver"; yellow and red spots being found on transverse section. The red spots are the distended veins,

the yellow ones represent the liver-cells, which are usually the seat of fatty degeneration. The distended veins press upon the liver-cells, and so lead to this degeneration. In the later stages of this disease the liver, we find, presents an altogether different appearance, and gradually diminishes in size. The reason for this is that in consequence of long-continued stasis there is a considerable development of connective tissue around the hepatic veins, which is followed by a degeneration of the cells. At a later stage the hepatic veins atrophy and the smaller bile-ducts become compressed.

The prognosis in the case of our patient, suffering as he does from this enlargement of the liver, is undoubtedly a bad one. Treatment must be directed towards the condition of the liver, disregarding the "vitium cordis," the former disturbance being now the more prominent one. In former times we used in such a case to abstract blood, either from the liver-region, from the external abdomen walls, which is not to be recommended, or from the region of the anus. Relief can only be produced by derivation directed towards the abdominal cavity; we, therefore, shall not prescribe for our patient anything beyond energetic purgation.

ON STATISTIC MEASURES OF THE HEALTH OF COMMUNITIES.[1]

By THOMAS W. GRIMSHAW, M.A., M.D.,
Registrar-General for Ireland.

I HAVE to thank the Council of the Sanitary Institute of Great Britain for the honour they have done me in selecting me to preside over this important section of the Congress. It would be impossible to state what subjects might not be included under the comprehensive title of this section—namely, "Sanitary Science and Preventive Medicine." In the absence of any system of recording the prevalence of sickness, the only way we have of arriving at a general estimate of the health of any district is by making use of the information afforded by the number of the deaths among its inhabitants, the nature of the diseases of which they die, and the relative proportion of the causes of death to the total and to one another, and their relations to other conditions with which I desire specially to deal on this occasion. A death-rate does not necessarily indicate the amount of disease prevalent in a district; for instance, there are some diseases, such as influenza, which cause but few deaths, but which may almost suspend the activity of a population. Many are sick who do not know it, or who take no notice of it for a long time, and there is not yet any method of recording the sickness that is known. Indeed, it is improbable that any reliable record of sickness will ever be established. Nevertheless, many very effectual attempts have been made to estimate the extent to which sickness prevails in certain communities. From tables prepared by Mr. Sutton, the Actuary to the Registry of Friendly Societies, it appears that the average time of sickness among males during the working years is 1·314 weeks—that is, a small fraction more than nine days each in each year; and that among females it is yet a small fraction more. The result is that among males there is a loss of 9,692,505 weeks' work in every year, and among females a loss of 10,592,761 weeks. Thus we may believe that our whole population between 15 and 65 years old do, in each year, 20,000,000 weeks' work less than they might do if it were not for sickness.

No further proof is necessary of the great loss the community suffers from sickness, and therefore as death statistics are practically our only measure of the prevalence of sickness, and the only generally available statistical measure of the health of communities, it is of the utmost importance that we should know the exact value to be attached to these measures, and the fallacies to which we are liable in making use of them. We find that among the great towns of the world, the death-rate, taken upon an average over a series of years, varies from 19·9 in Christiania to 48·0 in Madras:—

Calcutta ..	30·9	Munich ..	34·0
Bombay ..	34·8	Vienna ..	27·9
Madras ..	48·0	Buda Pesth	37·1
Paris ..	26·4	Trieste ..	34·1
Geneva ..	22·6	Rome ..	28·6
Brussels ..	25·4	Turin ..	26·8
Amsterdam	25·9	Venice ..	28·5
Rotterdam	26·1	New York	27·7
The Hague	24·6	Brooklyn	23·6
Copenhagen	24·8	Philadelphia	20·6
Christiania	19·9	Baltimore	22·2
St. Petersburg	42·1	Naples ..	31·4
Berlin ..	29·0	Alexandria	42·4
Hamburg	25·8	London ..	22·0
Dresden ..	25·1	Dublin ..	27·9
Breslau ..	31·2	Edinburgh	21·4

Undoubtedly the death-rates published weekly, quarterly, and annually by my colleagues in England and Scotland, and by me in Ireland, are *primâ facie* evidences of the relative healthiness or unhealthiness of the population living in each of these, and no doubt a very high death-rate does in nearly every case indicate unhealthiness, and a very low death-rate indicates healthiness of a population to which it refers; but it does not at all follow that a death-rate of, say, 40 per 1,000 indicates double the unhealthiness that a death-rate of 20 does. To speak in common parlance, the high death-rate really indicates that the population to which it refers has a delicate constitution, and that with a low death-rate a robust constitution.

It is important, in the first instance, to enquire under what circumstances we may expect to find a low and a high death-rate respectively. If a people are well fed, well housed, and well clothed (in fact well off), and the district is well drained, and the climate moderate, we may expect, all other things being equal, to find a low death-rate. Yet, if the people are employed at unhealthy occupations, and if they contain an undue population of young children or very old people, the death-rate will be high. If, on the other hand, a population is badly fed, badly housed, and the district is badly drained, we may expect to find a high death-rate, even although the occupations are healthy, and the age constitution of the population duly proportioned. In estimating the value of death-rates as a test of healthiness, there are some elements to which too much importance appears to have been attached. It is too much the custom to attach exaggerated importance to the proportion of deaths from "zymotic" diseases of an infectious or catching nature as evidence of unhealthiness. I admit that the prevalence of infectious diseases and their fatality is a very important element in estimating the health of a community; nevertheless, if the death-rate from any particular group of diseases were taken as a single test of unhealthiness I should choose the constitutional, not the zymotic group, as the most reliable. If we take London and Dublin, for example, and contrast them as to the relative mortality from particular groups of diseases, we find that the deaths from zymotic diseases were 57 per 10,000 of the population in Dublin, and 51 in

[1] Address delivered in the Section of Sanitary Science and Preventive Medicine at the Sanitary Congress, Dublin, Oct., 1884.

London, or but slightly greater in the former than in the latter; whereas the deaths from constitutional diseases in Dublin were 43, while in London they were only 23, or little more than one half the same proportion. Nevertheless, the total death-rate in Dublin was 277, while in London it was 230, or 47 less. Again, the infantile death-rate is much relied on, but a low infantile death-rate is quite consistent with a high general death-rate—as, for instance, happens to be the case in Dublin.

Attempts have been made from time to time to estimate what should be the death-rate of a healthy community, but in my opinion all such efforts have been signal failures; and we are driven to depend upon comparisons of death-rates in various countries with one another, or to comparisons of different portions of the same community with the whole or with one another, as the only test of the healthiness or unhealthiness of such communities. Thus, the average annual death-rate of the population of England and Wales for ten years, 1871–80, was 21·4, while in London it was 22·5 In Scotland it was 21·6 for the same period. In Ireland for the same decade it was 18·3, and varied from 27·5 in Dublin to 14·1 in the rural districts of Connaught. Now, do these varying rates truly represent the relative healthiness of the different communities to which they refer? I state, unhesitatingly, that they do not; that in some of these districts the people are less unhealthy, in others more unhealthy, than the rates represent them to be. It is therefore of the utmost importance that when we find that *primâ facie* a community has a very high death-rate or a very low death-rate, or in many cases an average death-rate, we should minutely investigate all the elements which compose such an exceptional death-rate, and having hunted down the peculiar elements to their habitat in a particular place, class of life, age, sex, or occupation, we shall be in a position to rightly estimate the significance of the high or low death-rate, as the case may be. It will be necessary, in making such investigations, to consider the death-rate in relation to the following conditions:—(1) The locality in which the people live, its climate, soil, &c., its drainage, the density of the population, and the mode in which they are housed. (2) The wealth or poverty of the people, and their means of obtaining food and clothing. (3) The occupation and social position of the people, and the proportion of each class to the whole and to one another. (4) The age-composition of the population, the population living at each age, and therefore their expectation of life. (5) The diseases of which the people die. (6) The relations of births, marriages, and deaths to one another and to the population. I shall now endeavour to touch upon each of these questions, and consider how far statistical measures can be fairly applied to their solution.

We have no statistical measure which can be applied as a test of the healthiness of a particular locality as such, although we can state with a considerable degree of accuracy that we are not likely to find a healthy population living in swampy grounds, or in a low-lying locality which is not sufficiently drained. We also know that the inhabitants of a damp district may have their health materially impaired by the drying of the soil by drainage works. In the matter, however, of climate, we can apply statistical tests, and I would take the familiar case of Dublin and London to illustrate this point. In Dublin we have a delicate population as compared with London. If we take the temperature of the air as one of the most important elements of climate, we find that the means for Dublin and London are not very different, Dublin being somewhat more equable in its temperature, and therefore more favourable to delicate people, while in each district sudden falls of temperature and considerable cold, lasting for an extended period, are accompanied by material increase of death-rate; yet the addition to the death-rate in Dublin under such circumstances is much greater in proportion to the cause than it is in London; thus showing that the more delicate—in other words, the less healthy — population of Dublin is more easily injured by cold than the more robust population of London. Why this is so is a separate question, but the fact, I think, will be found proved, whenever tested, that a population whose death-rate is extremely sensitive to alterations of temperature is an unhealthy population, and has generally a high death-rate at all times.

It has long been known that a very general relation exists between the density of a population and its death-rate; in other words, where people are packed closely together there we expect to find a high death-rate. This at first sight appears to be a mere truism, but I am glad to say that the old sanitary, or unsanitary maxim, "that a dense population has a high death-rate," is becoming less true every day, as it has been proved by the operations of artisans' dwellings companies and others who have undertaken to provide dwellings for the working classes, that with reasonable precautions very dense populations can enjoy very good health and have very low death-rates. The very natural inference has been drawn that the principal zymotic, or infectious diseases (as they are popularly called), contribute largely to this high death-rate in dense populations. This influence, however, cannot be very potent, and, indeed, Liverpool is the only instance where it is well marked. It would appear that more can be done by re-arranging and re-distributing the dense populations within existing areas than by making futile attempts to diminish density.

The next question to discuss is the wealth or poverty of the people, and consequently their ability to obtain the necessaries of life, in the way of food, clothing, and house accommodation. I have made many attempts to establish statistical lists of these conditions, but the absence of reliable statistics of wages and the variations in the method of relieving the poor and needy through the Poor Law or otherwise, have quite baffled my attempts. Closely connected with the question of the poverty or wealth of a community, as a test of the significance of its death-rate, is that of the social composition of the community. It is a matter of the utmost importance, when applying death-rates as a test of health, that the relative numbers of the population belonging to each social class should be known. We are all, unfortunately, too well aware of the fact that the death-rate among the weekly wage-earning class, especially among children, is higher than in the classes above it. Now, although the census returns take note of the occupations of the people, they do not take note of the numbers of persons dependent for subsistence on each kind of occupation; thus, the census reports tell us how many blacksmiths there are in the United Kingdom, but do not tell us how many blacksmiths' wives and children there are, and therefore how many persons are supported by and dependent upon the trade of the blacksmith. Some years ago the Dublin Sanitary Association —which has had so much to do with the organising of this Congress—considered this question, and determined that when the next census period approached they would ask the Government to include returns of the social condition of the people of Dublin in the census returns for 1881. The variations in the death-rate between the classes and the sub-classes is remarkable. For example, in the "professional class" the death-rate is but 19·8 per 1,000, while in the "general service

class" it is 36·8 or nearly double. Among domestic servants, it is but 9·1, while among labourers it is 34·4, although both are drawn from the same stratum of society. These returns exist only for Dublin and in Dublin. This method of dealing with mortality statistics is only in an experimental stage, and therefore must have many imperfections.

The next point to be considered in the application of statistical measures of health is the age-composition of the community to which the measure is to be applied. The number of persons living at different ages differs materially in different communities. The number of very young people in England is relatively much greater than in Ireland, the number of children under five years being 135·5 per 1,000 inhabitants in England, as compared with 111·3 in Ireland. In the case of infants under one year it is more remarkable, there being 29 "babies" in England to 20·3 in Ireland, a fact which is at variance with commonly received opinions. At the other extreme of life we find that there are more old people in proportion in Ireland, where those above 60 number 106·2 per 1,000 of the population, than there are in England, where they number but 73·8 per 1,000. Now, as very young children die at a greater rate than older children, or persons in middle life, we might expect the death-rate of England to be much higher than Ireland, but it is only a little higher. And why is this? Because the old people, whose lives are also precarious, are more numerous in Ireland than in England. In both countries the highest death-rate is among children, the deaths under one year being 109·4 per 1,000 living at that age in Ireland, and 152·7 per 1,000 in England, as compared with the general death-rate of 17·4 and 18·9 respectively. The death-rate steadily decreases as age increases, until the age period of from ten to fifteen years is reached, when the rate reaches the minimum both in Ireland and England, being 3·7 in Ireland and 3·3 in England. After this period the troubles and risks of life are entered upon, and the death-rate steadily rises until the age of sixty-five is passed, when the rate increases by enormous strides. It is remarkable, on comparing Ireland with England, that up to the age of ten the death-rate of English children is higher than of Irish and after that period the Irish death-rate is in excess of the English. It looks as if the real struggle for existence were harder in Ireland than on the other side of the Channel. This, however, is not likely to be the case, and the difference is probably owing to the larger emigration from Ireland. It is well known that in all countries of Europe it is the most able-bodied, strong-minded, and enterprising who emigrate to seek wider fields for their energies than are afforded by the overcrowded countries of the Old World. This principle affects Ireland more than England, just in proportion to the number of emigrants; the able-bodied and energetic go, the delicate and less active remaining.

The higher death-rate among children in England as compared with Ireland cannot, however, be thus explained. Is it that Irish mothers are more careful of their little ones than English mothers? I trust that with all our differences there is none between Englishwomen and Irishwomen in their love and care of their little ones. Indeed, it would ill serve me to enter upon such a comparison, as my mother was an Irishwoman, and the mother of my children is an Englishwoman. The explanation is simple, though it may surprise some; it is the difficulty of bringing up healthy children in large towns, and the mothers leaving them, to work in mills or at other occupations. In England there are many more large towns than in Ireland. In England of the 25,974,439 people (according to the census of 1881), 14,626,131 live in towns having a population of 10,000 or upwards, and 11,348,308 live in country districts and small towns. In Ireland, of the 5,174,836 only 845,839 live in towns with populations over 10,000, while the balance, 4,328,997, live in country districts and villages. In other words 56·3 per cent. of the English people belong to town populations, and but 16·3 of the Irish people live in considerable towns. The following statement, showing the proportion of deaths under one year to 1,000 births, demonstrates the dangers to infant life in large towns, and shows that this danger is, as a rule, greater in manufacturing than in other towns:—

London ..	.. 154	Glasgow ..	.. 151
Birmingham	.. 167	Dublin ..	.. 170
Manchester	.. 176	Belfast ..	.. 147
Edinburgh	.. 135		

Again, with a view of testing the question further, I take two registration counties of England—namely, Lancashire and Somersetshire—the former of which contains a large population resident in towns, and the latter a small proportion of its population so residing, and I find that in the former case the infant death-rate was 167, while in the latter it was only 116. The differences in mortality cannot altogether be attributed to the peculiarities of a manufacturing population, for if we compare London and Dublin, neither of which can be considered as inhabited by populations *especially* engaged in manufacturing industries, the mortality of Dublin, at all ages, especially among infants, far exceeds that of London. Now why is this? I am unable, from want of information, to give a positive answer; but I believe that a great deal of the difference depends on the social condition of the communities, and the more prosperous condition generally of the lower social strata of society in London than in Dublin. This is, no doubt, a bold assertion, especially when we know how great are the miseries of outcast London. If, however, we look again to the social condition table for Dublin and to the mortality table, we see that the vast bulk of the infantile mortality takes place among the "general service" and "pauper class," which constitute nearly half (44·3 per cent.) of the population of the Dublin registration district. It is a melancholy fact, but nevertheless it is a fact, that the struggle for maintenance between the members of a large family (and indeed not unfrequently in a small family), among the lower strata of society, is so intense that it results in the injury of all its members, and the death of many. This is really one of the first questions of the day, and one which, unfortunately, has not been sufficiently attended to by many social reformers, but with which I cannot deal here.

In connection with the question of the effect of age-composition of a community in relation to its death-rate, I would draw special attention to some remarks on the subject in the summary of births and deaths of the Registrar-General for England for the year 1883. In this summary a very ingeniously constructed table is introduced, by which this effect of age-composition on death-rate of population is shown, and death-rates corrected according to standards derived from the age and sex-composition of the population of England and Wales, are given for all the large towns of England and Wales, and then compared with the recorded death-rates. In some cases the differences are very considerable between the two rates. I have had some experimental calculations made on Irish death-rates, based on the principles suggested by the Registrar-General of England, and there can be no doubt that such investigations will tend to throw further light on the statistical measures of the health of communities.

At the commencement of these remarks I said, when speaking of the importance attached to the death-rate for zymotic diseases as a means of health, that if I were to take the death-rate for any particular group of

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diseases, I would choose the constitutional, not the zymotic, as the test. I would here again refer to the instances of Dublin and London as useful examples, the former being an unhealthy, the latter a healthy town population. It will be observed that in nearly every instance the death-rate of Dublin is somewhat in excess of that of London; in many diseases the excess is small. Thus, in the case of the zymotic diseases, the excess of Dublin over London is not, proportionately, nearly so great as in the case of constitutional diseases; in the former case the ratio is 57·1 to 50·6, in the latter 52·3 to 42·9. Among the constitutional diseases we find that the death-rate per 10,000 from phthisis or pulmonary consumption alone is 31·6 against 25·1, and closely connected with this we find that the death-rate from diseases of the respiratory organs is 55·8 in Dublin against 47·5 in London. This accords with my former remarks on the delicacy of the population of Dublin compared with London, as measured by the effect of sudden falls of mean temperature on the death-rate of these two towns. I believe that the prevalence of the class of diseases termed "constitutional," as measured by the death-rates from these diseases, will be found to be a better gauge of the health of the community than the prevalence of any other single class of fatal affections, and in this sense may be truly termed "constitutional," whatever objection there may be to the term when viewed by the scientific nosologist.

My remarks have now extended beyond the limits which should be placed on an address such as this, and I shall not attempt to analyse the statistics which are available regarding the relations between marriage-rate, birth-rate, and death-rate; but I think I may ask you to take my word for it that when these three rates bear an undue proportion to one another in any given community there will be found to be serious defects in the health of that community, and not improbably a serious defect in its moral as well as its physical health. The relation between cleanliness and godliness is deeper than many who use this common proverb are aware. In conclusion, I have a word to say about the contrast between the health of the inhabitants of town and country districts. I have recently been engaged upon an analysis of the returns of marriages, births, and deaths in Ireland for the ten years, comprised between the census periods of 1871 and 1881. The report on this subject has been recently presented to Parliament, and will soon be in circulation. From this analysis I find that the death-rates in the districts in Ireland comprising towns with a population of 10,000 and upwards, during the decade, was at the rate of 225·1 per 10,000 of the inhabitants, while in the districts which comprise no considerable towns it was only 166·5 per 10,000. It may be pointed out that the death-rate from nearly every cause is greater in the town districts than in the country districts. It is, however, specially worth noting that the deaths from consumption in town districts were at the rate of 27·7 per 10,000 of the mean population, and in the country districts but 16·4, and in diseases of the respiratory organs the ratio was for the former 38·4, and for the latter 22·6. I shall not venture to analyse any further the information contained in this report, which will be in the hands of the public in a few days. I must now bring these remarks to a close, and trust that I have not occupied your time unprofitably in asking you to consider some of the many and not a few of the most important points we have to take into consideration when applying statistical measures as tests of the health of communities.

The Library of the Royal College of Surgeons will be closed this day (Friday), and on Friday, Oct. 17th, for the purposes of the examinations, which commence earlier this year.

CRITICISMS ON THE EXHIBITS OF DISINFECTANTS AT THE HEALTH EXHIBITION.

By A. WYNTER BLYTH,
Medical Officer of Health for Marylebone.

Disinfectants are the shot and shell of the sanitarian.

Disinfection may aid but never replace cleanliness—an often repeated and ever accepted axiom; nevertheless, the pestilence that flies by night, the murrain falling on man and beast, require even more than cleanliness which is but a passive resistance. The war against hosts of the infinitely small is offensive as well as defensive. It is not sufficient to wash away the food of the enemy, he must also be harassed by shot and shell.

Old and new methods of testing disinfectants.

The older experiments on the activity of disinfectants but touch the surface. True it is that sulphur dioxide decomposes hydric sulphide, but a better knowledge is, will it neutralise or influence cholera or typhus? It is this better knowledge, one which it is no figure of speech to say will save myriads of human lives, that the new method aims at attaining. The new method cultivates in flask and test-tube pathogenic forms of micro-life in such a manner that they may be studied at leisure and in detail, and the influence upon their growth exerted by disinfectants observed.

This method, only of recent years possible, will give a precision to the science of preventive medicine hitherto unknown, and deal a blow at the reputation of many a disinfectant sold by cupidity and bought by ignorance.

Provisional classification of disinfectants.

Disinfectants, in relation to their influence on micro-life, might be divided as follows:—

1. *Sterilisers or Germicides.*—That is, agencies destructive of pathogenic micro-life, *e.g.*, heat, strong mineral acids, undiluted chlorine, corrosive sublimate.

2. *Agencies which as a rule* do not destroy pathogenic life, but act as inhibitors to the growth and multiplication of microbes generally, *e.g.*, dilute carbolic or cresylic acids.

3. *Deodorisers*, substances neither overpowering nor masking bad smells, but destroying them, *e.g.*, peroxide of hydrogen, chlorine.

4. *Antiseptics*, substances which arrest decay, *e.g.*, thymol, common salt.

Action of commercial disinfectants on anthrax cults.

During 1883, I experimented on the action of the ordinary commercial disinfectants on the anthrax bacillus. My paper, with full details, will be found in the "Transactions of the Royal Society of Edinburgh," but I will give here a brief abstract of the method employed, and will refer to the general results attained.

Anthrax bacillus was cultivated in gelatinised pork broth, until crops of spore-holding threads were produced. These spores were used to infect sterilised veal and mutton broth after being treated as follows:—Pieces of glass-tubing were drawn out in the flame so as to make capillary rods, each rod was tipped by sealing wax, and each little red bead of sealing wax was made to carry a minute "fluff" of sterilised cotton wool. This little fluff was infected by spore-anthrax, by dipping it in an anthrax cult; it was then submitted to the action of the disinfectant under examination for a definite period of time; after this the infected wool was freed from any minute trace of the disinfectant by careful soaking in suitable fluids, water, alcohol or ether, according to circumstances; lastly, the capillary glass rod, with its fluff, was plunged

into sterilised broth with all the well-known precautions necessary to prevent other contamination, and the broth submitted to cultivation. A large incubator, kept at blood heat night and day, permitted the simultaneous treatment of 20 to 30 cults. If the anthrax spore had been destroyed, no growth resulted; delayed development was discovered and estimated by cultivating, side by side, ordinary (control) cults.

The method I have so briefly detailed is the outcome of successive simplifications, and was convenient and satisfactory; but, on the other hand, I am not quite content with the main result of the investigation. Anthrax is in two states, the thread and the spore—the thread state is so delicate that all sorts of things, substances even with feeble claims to be considered disinfectant, will destroy it. Anthrax spores, on the other hand, are so resistant, that to compare disinfectants one with another by their action on the spores, is taking too high a standard. I hope to find for further experiments some micro-life, the vitality of which stands between these two extremes.

Method of ascertaining the deodorising power of disinfectants.

To ascertain the deodorising effect of a disinfectant, I proceed as follows:—Offensive liquid sewage is taken, and a litre put into a wide-mouthed stoppered vessel; the fluid to be tested is added to the sewage little by little from a burette, and after each addition; the vessel is well shaken, and allowed to rest a given time, and then the odour (if any) ascertained. This test is very rough, and as applied to any disinfectant having a strong odour, unsatisfactory, for there is ever a doubt whether the sewage-scent be masked or annihilated.

Carbolic, Cresylic Acid, and the Tar Principles Generally.

Messrs. Calvert's preparations.

I notice with commendation Messrs. Calvert's fine display of various carbolates, of phenol and of cresol. Messrs. Calvert hold, I believe, a strong opinion that the purer forms of acid are, for disinfecting purposes, superior to the impure; nor will anyone venture to gainsay this so long as a comparison is made between equal bulks; but it is a different matter if the competition lie between equivalent strengths, as, for example, between 100 parts of 50 per cent. phenol, against 50 of absolute. In such a case, according to my experiments, the crude mixture of acids goes farther than either the equivalent quantity of pure phenol or pure cresol, or a mixture of phenol and cresol, the reason probably being that the so-called impurities are, to a certain extent, disinfectant.

Effect of phenol and cresol on anthrax.

I have experimented on anthrax with both phenol and cresol. As chloroform and ether are the anæsthetics of higher life, so the tar acids are anæsthetics of microbe life. Under the influence of moderate amounts of either vapour or liquid, a state which may be compared to sleep is produced, but on complete removal of the acid, and on placing the microbe on a suitable soil at a suitable temperature, growth sooner or later developes:—

One per cent. solution of Calvert's carbolic acid, of the common impure commercial acid, and one per cent. solution of cresylic acid, were severally used to sterilise the infected "fluff" acting for various periods of time; but in each case subsequent development was almost as rapid as in the "control."

A five per cent. solution of these three acids gave results not dissimilar, save that growth was at first much delayed, but afterwards active.

A twenty-five per cent. solution in alcohol of either cresylic or carbolic acid seemed to destroy anthrax-spore life; that is, it made it incapable of germinating in broth.

Various tar-acid disinfectants.

Jeyes' perfect purifier, the concentrated carbolated creosote of Messrs. D. & W. Gibb, the kresylene described by Messrs. Mackey & Co. as a preparation of coal-tar creosote, pixene, and the thymo-cresol exhibited by Messrs. Ness & Co. (Darlington), have all the property of emulsifying with water. Jeyes' purifier was for some time tried in St. Marylebone urinals and drains, but the deposit left on the surfaces with which it had been in contact was found difficult to cleanse and inconvenient. I have made some experiments on anthrax, in the spore state, with the "perfect purifier." The solutions used were five to ten per cent.; the "fluff" had to be freed from the tenacious fawn-coloured deposit by alcohol. The result was very similar to what might have been predicted from results of experiments on the pure tar-acids, viz., growth was a little delayed, but never destroyed.

Pixene.

Mr. James Wheeler's pixene I was on the whole favourably impressed with. He claims to have condensed the whole of the volatile constituents of pure tar, and to have presented them in a form readily miscible with water. Pixene is of the colour and consistency of treacle, its odour is decidedly more agreeable than that of coal-tar, or of impure phenol. Anthrax spores soaked in a ten per cent. solution did not grow for some time.

I have made no very elaborate experiments on the other disinfectants of this class; they appear to me to differ but little from Jeyes' in their activity and properties. All either destroy or overpower (I know not which) bad odours.

Carbolic acid powders.

I have experimented on anthrax with Calvert's, Jeyes', and McDougall's powders, but even when a paste was made with the several powders, and the infected "fluff" allowed to remain therein twenty-four hours, no sterilisation resulted. On placing the wool in a proper medium, growth invariably took place.

A powder is, of course, convenient for transit, for storage, and for application, but I have not the slightest hesitation in expressing doubts as to the disinfecting activity of the carbolated powders.

Sanitas.

Sanitas.

Of all the substances introduced under the name of disinfectant, this is the most pleasant. Sanitas is chiefly in the form of sanitas oil and sanitas fluid; peroxide of hydrogen, thymol, camphoric acid, and terebene enter into their composition. Of the numerous sanitas preparations, liquid and solid, the oil seems to be the most active. Nothing replaces or destroys so rapidly the unpleasant odour which tenaciously adheres to hands contaminated by contact with offensive animal matters. It is also to be commended for use in stables, and as a corrective of dung-heaps, and of the sickly smell at times rising from the metropolitan wood pavement.

I made many experiments with sanitas on anthrax.

Spores soaked in sanitas fluid for twenty-four hours grew afterwards very freely. Spores placed in the undiluted emulsion, and afterwards removed, seemed at first to have their growth delayed, but in forty-eight hours growth commenced and ultimately became luxuriant. The oil itself gave similar results. Sanitas powder was also tried, but with no better success.

Allowing, as I said before, that anthrax spores are extremely resistant, nevertheless the very non-poisonous character of sanitas on which so much stress is laid by those interested in its sale, renders it unlikely to be a true steriliser, and in the present absence of evidence I would not rely upon it in serious disinfection, that is, in cases of disease.

Sanitas appears a good antiseptic, and I notice at the Exhibition meat preserved in it.

Eucalyptol. *Eucalyptol*, and *Eucalyptol powder* with sulphate of iron, or with copper or lime, exhibited by Messrs. Mackey, Mackey & Co., are suggestive of sanitas, and have all pleasant odours. In default of experience I pass them over for the present, reserving them for future trial. I may, however, state that, counter to general belief, sulphates of iron and copper are according to my own trials rather stimulant than destructive of micro-life; that is of course in the strength likely to be used in practice.

The Permanganate Class of Disinfectants.

Condy's fluid. Condy's fluid is of course exhibited. The delicate attractive red or pink colour, the property of giving up nascent oxygen, and the non-corrosive and non-poisonous characters of permanganate of potash will always ensure it a place among disinfectants.

Anthrax in the spore state is only attacked by permanganate when concentrated and hot, and it is doubtful whether the dilute form in which permanganate is used in practice would destroy any but the more delicate and feebler forms of micro-life; the maximum oxidising effect is only produced in the presence of either a strong alkali or a strong acid, and at a high temperature. Under these conditions, it is possible to oxidise the carbon of very complex and resistant substances into carbon dioxide. If, for instance, a little flour is boiled with strong sulphuric acid, and from time to time a crystal of potassic permanganate is added, a perfectly colourless solution may be obtained, without any visible particles of carbon; but these violent reactions belong to the laboratory, and are not to be attained in ordinary disinfection.

Chlorine and potassic permanganate. *Chlorozone* exhibited by the Chlorozone Fluids Company, and Messrs. Mackey's oxychlorogene, are very similar and their properties depend upon permanganate and chlorine. Twenty parts of either of these fluids fully deodorise 10,000 parts of offensive Marylebone sewage. I think these disinfectants are of some considerable power, and regret that I have not yet experimented with them on micro-life.

Hartin's crimson salt. *Hartin's crimson salt* seems to me nothing else save permanganate, and certainly possesses no virtues superior to an equal weight of potassic permanganate.

Sulphur Preparations.

Germicidal properties of sulphur dioxide. There is some evidence that sulphur dioxide, whether in solution or as gas, is destructive of the more tender forms of micro-life. Bucholz found that 1 part in 666 of a cultivation fluid inhibited the growth of ordinary putrefactive bacteria.

Braidwood and Vacher mixed vaccine lymph with a saturated solution of sulphurous acid, and with this mixture vaccinated twelve children; one alone "took." Koch found that under one per cent. of sulphur dioxide as a gas, destroyed the thread form of the anthrax bacillus, the micrococcus prodigiosus and the bacteria of blue pus; on the other hand, Koch, Abloing, Cornevin, Thomas and myself, have found the spore-holding threads unaffected, although exposed to an irrespirable sulphur atmosphere for long periods of time.

Sulphur fumigation. I do not put much faith in any form of sulphur fumigation, unless it is prolonged, the room first moistened by steam, and large volumes of the gas used. The disinfecting fluids about to be described are probably efficacious so long as they are allowed to act in their present tolerably concentrated form.

Various saturated solutions of sulphur dioxide. Messrs. Mackey, Mackey, and Co., under the name of liquid sulphur gas, sell a saturated solution, one volume containing about 400 of sulphur dioxide; such a liquid is certainly most convenient. The same firm have introduced "sulphenic acid," which is phenol saturated with sulphur dioxide, and it seems to me to be a promising disinfectant.

Prof. Tuson's disinfectants. Professor Tuson's two disinfectants, a liquid and a powder, exhibited by Messrs. A. Boake and Co., are, in a chemical point of view, highly ingenious. The liquid is of a light green colour, and consists of a solution of chloride of zinc, saturated with sulphurous acid gas. The powder is also tinted green, and is a mixture of sulphite of lime, sulphate of alumina, and sulphate of zinc; when moistened, whether by exposure to the air, or by being added to moist substances, a chemical reaction is set up, and sulphurous acid is slowly evolved.

I regret that I have only made some experiments on the deodorisation of sewage with these disinfectants, but intend at a future time to test their effect on micro-life. Of course the sulphur dioxide decomposes at once sulphuretted hydrogen, and any smell produced by mixtures of this gas would probably be at once annihilated; but I was surprised to find that the Marylebone sewage was not deprived of its offensive odour by treatment with a sufficient quantity of the liquid, to make the odour of the sulphurous acid very pungent, for through, as it were, the sulphur smell, the unmistakable sewage odour could be perceived. The powder as a deodoriser of sewage acted better than the liquid.

Chloride of zinc. With regard to one of the ingredients which make up the liquid, viz., chloride of zinc, Dr. Koch has expressed himself unfavourably, and states his astonishment that it should ever have been considered disinfectant; he found anthrax spores after a month's sojourn in a five per cent. solution grow and flourish.

I have also experimented on anthrax with zinc chloride. One per cent. solutions used in the manner detailed in the former part of this paper, most decidedly stimulated subsequent growth, the development being quicker and more luxuriant than in the control. A five per cent. solution acting for 24 hours had no influence one way or the other, while a twenty-five per cent. solution seemed, so far as artificial cultivation is concerned, to have arrested the life of the spore. I also dissolved chloride of zinc in thymol-water, but did not obtain by this combination any modification of the results.

It will of course be argued by the proprietors of Professor Tuson's disinfectants, that the combination of sulphurous acid and chloride of zinc will be found to possess more than the sum of the single action of each; this may be so, but it would be well to prove it.

Other Disinfectants.

Affinitan. "*Affinitan*," fathered by Mr. J. Alfred Shilton, F.C.S., should, according to my views, have its composition stated. I find among its constituents bromine, iodine, and ammonium chloride. The assertion on the label that it leaves no permanent stain is correct, whilst that it has no smell is not correct; the bromine odour is decided, though possibly not disagreeable.

There can be no doubt that the composition is powerfully disinfectant, but there is no novelty in the application of either bromine or iodine; the only question is, whether the particular form, strength, and combination has any particular advantage, or whether the price at which "affinitan" is sold is a reasonable one.

Camphorine. *Mackey's camphorine* consists of cam-

phor dissolved in a terpene. It is a pleasant fluid, and may be used for antiseptic and deodorising purposes.

Disinfection.

Much modern disinfection little better than the use of charms.

A practical study of the question of disinfection has profoundly altered my views, and I have an honest conviction that most of the disinfection by *chemical agencies*, as commonly practised, is worse that none. The reliance that even medical men of repute, still more the laity, place on a sheet wet with a little permanganate hung up before the sick room door, or on a feeble atmosphere of phenol, or a tablespoonful of Burnet's fluid to destroy things, the resistant nature of which is pretty well proved by their persistence, is astonishing. I question whether three horseshoes nailed over the lintel, by which some country folk keep the devil away, would not avail as much.

Effective treatment of excreta.

Specific excreta should be treated with the strongest chemical agencies. They may for instance be cast into the undiluted crude carbolic acid of commerce, which contains from 25 to 50 per cent. of real acids, and there digested for at *least two hours* before being thrown into the common sewer.

Disinfection of house drains.

House drains in the presence of zymotic disease should not be intermittently but continuously disinfected, so that the walls of the pipes be ever moistened with a disinfectant.

A non-poisonous germicide an impossibility.

A non-poisonous disinfectant is certain to be useless as a germicide. It stands not in reason, that a fluid harmless to mammals, rodents, and reptiles will be destructive of forms of life, some of which withstand a short exposure to the heat of boiling water.

Disinfecting quackery.

Rampant rides the quack in the fields both of preventive and remedial art. Quackery takes a well-known common powder, labels it with a grand mystic name, selling bright copper at the price of gold. Quackery finds a stink outstinking feebler stinks, and gives it forth as a disinfectant. Of all the substances gathered together under the name of disinfectants—solids, vapours, gases, and odours—a small percentage alone possess any value.

Contagion to be killed not "scotched."

Heat, chlorine, phenol, and corrosive sublimate are the sole practicable agents in which I put my trust as germicides, but to have due effect these must be used in a concentrated form, and for a prolonged period. To receive specific excreta in a five per cent. solution of carbolic acid, and then after a few minutes' interval to cast the substances so treated into drains or cesspits, is not likely to afford safety; for the disinfectant will be immediately diluted a thousand or million fold, and cease to inhibit pathogenic activity. The aim of the disinfector must be not to "scotch," but to kill, and this destruction should take place at the bedside of the patient; on the birth, as it were, of the fever egg.

PIECE OF COAL IN LEFT BRONCHUS ONE HUNDRED AND ONE DAYS.—PERICARDITIS.

By JAMES OLIVER, M.B. (Edin.).

Assistant-Physician to the Hospital for Women, Soho Square.

When a foreign body enters the air passages and becomes impacted in a bronchus, the right is more usually the seat of lodgment. This at first seems somewhat anomalous and difficult to explain, seeing that the left bifurcation is the more direct continuation of the trachea itself. The right bronchus is somewhat horizontal, but this, it would seem, is more than counterbalanced by the position, to the left of the median line, of the dividing septum. It is this deviation alone which apparently determines and favours the lodgment of foreign bodies in the right tracheal branches.

In the case in question the physical signs led to the determination of the seat of obstruction, and it is more especially to the changes occurring in the chest that I wish to draw attention. I shall not, therefore, enter into the details of the case in its entirety; suffice it to say that during the first two days, before impaction had resulted, the symptoms were those generally evinced under like circumstances — convulsive cough with dyspnœa, and occasional paroxysmal aggravations.

Complete occlusion of a fair-sized bronchus had resulted, evidenced by the fact that a partial emphysema had occurred, which interfered more or less completely with the respiratory function of the whole lung, the chest walls being maintained in a position of full inspiration. The left chest was fully expanded, the bulging at the side more especially being well marked, little or no change occurring during deep inspiration. Vocal fremitus was well marked over the right chest but barely determinable over the left. The percussion note over the left lung in front was hyper-resonant, and almost tympanitic, whilst posteriorly the note of this side was impaired, compared with the note of the right, a fact probably due to the compression of the air-cells posteriorly, the space previously occupied by them being encroached upon by the emphysematous lobules. The breathing all over the right chest was compensatory, and more or less puerile, whilst over the left, breath sounds were but faintly audible.

Inflammatory changes developed in the course of time in the neighbourhood of the impaction, and gradually spread by continuity and contiguity of tissue, the bronchus itself apparently participating but little in the change. The pericardium, however, eventually became involved, evidenced by a well-defined to-and-fro friction murmur heard plainly in the region of the third and fourth ribs over a limited area midway between the nipple line and the left border of the sternum.

On the 101st day the patient was seized with a violent fit of coughing, and the offending body again becoming liberated, symptoms of an alarming nature ensued; the little piece of coal, however, being eventually ejected, the sufferer obtained immediate relief.

Long before the offending body was got rid of, signs indicative of phthisis had developed. A gradual improvement, however, in the general condition of the patient followed its expectoration.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

CONGENITAL MALFORMATION OF THE HEART—PATENT DUCTUS ARTERIOSUS—DEFECT OF VENTRICULAR SEPTUM—CYANOSIS—FACIAL ERYSIPELAS—PERICARDITIS—DEATH.

(Under the care of Dr. SIDNEY COUPLAND.)

James G., 31 years of age, a farm labourer in Hampshire, had been noticed to have had a livid appearance from his birth. He had never had rheumatic fever. When seven years of age he suffered from eczema of

the legs, and at the age of eleven from some intractable affection of the eyes for which he was treated in hospital. But he does not appear to have had any symptoms directly referable to the heart until he reached his 27th year. Up to that time he had worked steadily on the farm, and although rather dull and stupid, he was a sober and industrious man. In November, 1878, he had some swelling of the abdomen, became short of breath and suffered from slight hæmoptysis. Returning to work in April, he continued well till June, 1881, when similar symptoms recurred with swelling of the legs, and palpitation. In November, 1881, he went into Winchester Infirmary and remained there until January, 1882, when he was discharged in slightly better condition, but he found himself unable to resume work and again took to his bed.

He was admitted into the Middlesex Hospital, on July 3, 1882. He was then almost free from dropsy, had a hale appearance, and was able to walk upstairs without distress. Although of good muscular development he complained of feeling weak, and said he had pain in the abdomen and loins. The vessels of the face were markedly injected; the lips were livid, and the finger nails of a slaty bluish colour. There was a slight amount of anasarca about the ankles and feet, and also evidence of slight ascites. The heart's impulse was diffused, being most marked in the fifth interspace just below the nipple. There was a slight presystolic thrill. The cardiac dulness commenced above at the upper border of the fourth rib, extended to the nipple on the left, and to the border of the sternum on the right. On auscultation the first sound at the apex was very rough; the second sound sharp and ringing. At the base, in the third left interspace close to the sternum, a loud rasping bruit could be heard. This bruit, which was very localised, appeared to follow closely upon and partly to conceal the first sound. It was not audible at the aortic cartilage nor at the back. The pulse was of fair volume, compressible, regular, 96. The lungs were resonant, and breath sounds normal except at both posterior bases, where crepitation and occasional rhonchus were audible. The area of hepatic dulness was increased, extending from the seventh rib in the nipple line to two inches below the costal margin. The surface of the organ was readily felt. The splenic dulness was not increased. The urine was high coloured, acid, sp. gr. 1,025, containing a trace of albumen. The bowels were freely open. A perchloride of iron mixture was prescribed. He had not been in the ward three days before he was attacked with facial erysipelas. In the morning of July 8th, he complained of feeling ill; he vomited; suffered from thirst and headache; and the temperature, which had been subnormal, rose to 103°. The cyanosis now became more marked. Next morning the face, which was much flushed, was noticed to be slightly puffed on the right side. Temperature 102°, pulse 144, respiration 36. Tongue was coated, and the bowels had been open loosely three times. He had a cough, and the expectoration was rusty; basic crepitation as before. At 3 p.m. temperature 104·6°, when a dose of quinine was given; 9 p.m. temperature 104·2

July 10th.—9 a.m. temperature 100·6°, pulse 120, respiration 36. Face deeply cyanosed; the erysipelas is now marked and is spreading from the right to the left cheek. Swelling and tenderness of glands below the angle of jaw, most on the right side. Tongue dry and brown. Bowels loosely open. Towards the evening he became very weak and prostrate, and free stimulation was prescribed. At the same time the cyanosis became more and more marked, and the erysipelas continued to extend. A friction sound could be heard at the base of the heart, where the former loud musical bruit was no longer audible. The rhythm of the sounds at the apex was decidedly "cantering." Pulse 132, very small; temperature 100°.

July 11th.—Restless during the night but not delirious. Pericarditic friction very evident; erysipelas has not further extended. Temperature 99·6°, pulse 120. Urine contains no albumen; chlorides are diminished. Although the erysipelas did not continue to spread, considerable effusion occurred in the pericardium, and he became more prostrate. Death took place on the 13th.

At the *post-mortem* examination the cuticle was seen to be peeling off the face, which was puffy and œdematous. The peritonæal cavity contained about half a pint of serum. The pericardial sac containing 30 ozs. of serum, and the serous surfaces, especially about the base of the heart, were coated with shreds of lymph. The heart weighed 26 ounces; all the cavities were hypertrophied, and the auricles also notably dilated. Coagula occurred in all the chambers. The tricuspid orifice was large, and its valve incompetent. The pulmonary valves natural and competent, and the infundibulum natural. The ductus arteriosus, which had been partially laid open in removing the heart, was of large size and freely patent, admitting the tip of the little finger. At its orifice into the aorta there was some calcified atheroma beneath the lining membrane. The aortic valves were competent; the mitral also competent, but thickened along its border. A rounded aperture large enough to permit the passage of an ordinary cedar pencil occurred in the *pars membranacea* of the ventricular septum. Whether the aorta were narrowed beyond the entrance of the ductus or not, was not observed. The wall of the right ventricle at the base of the heart measured seven eighths of an inch in thickness; that of the left six eighths. The lungs were highly œdematous. The branches of the pulmonary artery within the lungs were dilated, and in many spots the intima was opaque, thick and atheromatous. The liver weighed 74 ounces, and was indurated from chronic congestion. The spleen, 12½ ounces, was also large and very hard. The kidneys were in a similar condition of cyanotic induration.

Remarks.—It is unusual, but not wholly exceptional, for the subject of such a cardiac abnormality as was here presented to attain the age that he did. Often death occurs, as in this case, from an acute intercurrent disease, against which there would naturally be a lessened capability of resistance than in people with normal circulatory mechanism. Acute fevers of any kind, and especially erysipelas, are very fatal to the subjects of cardiac disease. Had this man's life not been so cut short it seems unlikely that it would have been much prolonged. For the compensatory capacity of the heart which had sufficed to enable him to pursue the duties of life for seven and twenty years, had been failing for three years past, having reached its limit. The condition of the abdominal viscera also pointed to the long continuance of the circulatory difficulty, and the improbability of life being much longer maintained under such circumstances. The association of the pervious ductus arteriosus with an imperfection in the septum ventriculorum is not uncommon; and it is probable that the one defect depends upon the other, or that both are due to a common cause, *e.g.*, atresia of the pulmonary or aortic orifice, or contraction of the aorta. In this case there was no evidence of such a common primary change, and it is possible that the defective closure of the septum in fœtal life, may, by diverting some of the blood from the right to the left side, have aided in keeping the ductus patent. After birth, with the establishment of the pulmonary circulation, and the increased development of the left ventricle, the direction

of the flow through the ductus must be in the opposite direction to that which it takes in fœtal life. It must travel from the left side into the pulmonary artery. Hence the dilatation and disease of the intra-pulmonary branches of the latter, and the resulting embarrassment of the circulation on the systemic venous side. The aperture in the septum may have operated in the way of compensation, and for a time maintained the equilibrium between the blood pressure in the two sides; but as the heart's muscular power failed, this compensation would fail also, and there would be increased liability to over-distension of the right chambers with all its results. As to the cyanosis, although in this case a communication between the two sides of the heart did exist, it seems more probable that it was due to the lack of aëration in the lungs than to admixture of venous with arterial blood. The diagnosis of the case could not be precise; but the auscultatory signs were very suggestive of the actual condition. Congenital malformation was suggested by the history of the case; and a harsh but limited basic bruit (in the pulmonic area) is a frequent concomitant of a patent ductus. In a case in the Middlesex Hospital a few years ago (reported by Dr. Greenhow in Clin. Soc. Trans., Vol. IX., p. 152), in which the lumen of the ductus was of the size of a crow-quill, the aorta being slightly narrowed beyond, there was a marked thrill in the third and fourth interspaces, and a double bruit, viz., a harsh systolic bellows murmur followed by a humming bruit. A recent writer (Eichorst), speaking of the physical signs characterising this particular malformation, says that in it the cardiac dulness is increased to the right; the second (pulmonary) sound is accentuated, and a systolic murmur with a thrill is often met with, the murmur being conducted to the carotids. Sometimes there is bulging and dulness in the second left interspace due to dilatation of the pulmonary artery. After reference to other signs—cyanosis, dyspnœa, &c.—he says truly that they may exist from birth or first make their appearance in later life; and "that life has been maintained to nearly sixty years; but death frequently takes place early from intercurrent disease, owing to the diminished power of resistance of the organism."

Medical Times and Gazette.

SATURDAY, OCTOBER 11, 1884.

THE General Medical Council met last Tuesday, and re-elected Sir Henry Acland as their president for a third term of five years. That they were wise in so doing, those who are best acquainted with the working of the Council and the duties of the office will probably fully agree, though we must confess to not a little surprise that he should have been willing to undertake a further term of office. After a few preliminaries the first business of the day was reached in Mr. Macnamara's proposal to require of all intending students of medicine a certificate of moral character, which after being discussed at very considerable length was rejected by a large majority. This we unhesitatingly say we are glad of. Almost all who spoke for it admitted that very little reliance could be placed on such certificates, and allowed that they were frequently given on very scanty information. Indeed we think that Dr. Matthews Duncan really represented himself in quite a wrong light when he spoke of giving such certificates every day of his life, for we know of no one whose certificates are more conscientiously worded than his. But as Professor Humphry said, how are we to refuse to give such a certificate. What kind of moral obliquity would justify us in saying that a person is not of good moral character. It seems to us that Mr. Simon was nearest the truth when he said that only such offences as the criminal law takes cognisance of would justify a man's rejection on moral grounds, and if this be so, then a certificate becomes wholly unnecessary. Another point, too, seems to us of importance, though none of the speakers took it up. It was proposed by Dr. Banks that these certificates should be signed by two medical practitioners, and that certificates should not be accepted from magistrates or clergymen. To have passed this would have been a blunder of no ordinary magnitude, as it seems to us. The less medical men meddle with things that do not belong to them the better, and as it is part of their duty to certify to the professional fitness of young men as regards ability, they will do well to leave others to judge of their moral fitness.

A CONSIDERABLE amount of time was devoted both on Tuesday and Wednesday to discussing what, as it turned out on a division, a large majority disapproved of; we refer to Dr. Banks' proposal to raise the age at which men might become legally qualified to practice medicine to 23 instead of as at present 21. We fail to see any advantage in the reasons offered for the proposed change, or in Professor Struthers' suggestion to make it 22 instead of 23. There is a very good reason for fixing upon 21 as was pointed out over and over again, in that it is the age recognised by the law as that at which a man becomes responsible for his actions; and as Mr. Simon very justly urged, it is a question of fitness in a professional point of view that should be the real test and not the accident of the date of a man's birth. We do not believe that the proposal would have had the effect of really lengthening the period of study in itself; that must depend upon a re-arrangement of the subjects of the curriculum, and the only effect of the proposed alteration would, we believe, have been to discourage young men of ability from joining our ranks, and by putting off the time at which a man could become a bread winner to increase the cost of his education, and, as Dr. Storrar pointed out in a most excellent speech, to necessitate his charging higher fees afterwards to recoup himself for the additional outlay entailed.

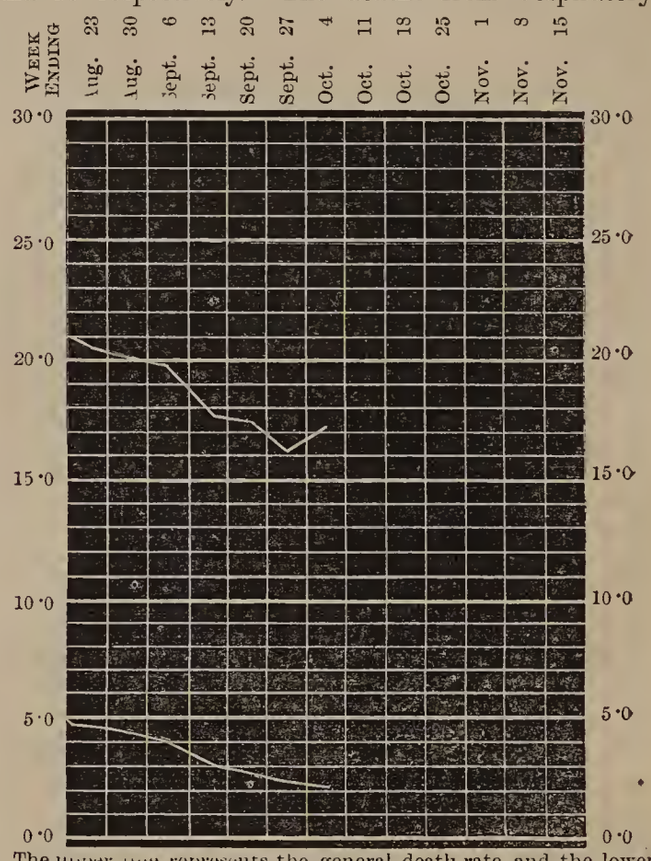
THE first half-hour of Wednesday's proceedings was (we say it with all deference to the Council) wasted. After having had a seat at that board for about ten years, Mr. (we beg pardon, PROFESSOR) Macnamara has discovered that he is not treated with that respect that he feels to be due to the exalted position that he holds as Professor of Materia Medica in the Royal College of Surgeons of Ireland, and he demanded in a formal, not to say pompous, manner that in future he shall be given his proper style and title in the printed minutes of the Council's doings. If he was in earnest, and several of the speakers evidently did not think he was, we can

only say that in our opinion Mr. Macnamara exhibited what we cannot but characterise as a piece of very bad taste, which was hardly to be expected from one with his well-known sense of humour. Even when he had learnt that in the whole history of the Council no one had ever been given the title of Professor in the minutes, he still adhered to his demand, and only consented to refer the matter to the arbitration of the President on the urgent appeal of Mr. Simon after half an hour had been spent in airing this fanciful grievance.

During the latter part of Wednesday afternoon and the whole of Thursday's sitting up to the time that we went to press, the Council was occupied with the discussion of the proposed conjoint scheme of the Royal College of Physicians of London and the Royal College of Surgeons of England. The proposal that the Council should ratify this scheme was introduced by Sir Henry Pitman, and seconded in a most lucid speech by Mr. Marshall. Dr. Quain proposed an amendment, the terms of which are given in another column. This was vigorously discussed and when we left the Council Room, at tea-time on Thursday afternoon, it had just been rejected by a very large majority, only four councillors—viz., Dr. Pyle, of the English representatives, and Dr. Aquilla Smith, Dr. Banks and Mr. Collins, of the Irish—voting with Dr. Quain. Subsequently, we hear, an amendment of Dr. Chambers', as well as two other amendments were rejected, and the sanction of the Council was given to the scheme. To-morrow the Council will probably go into Committee, to decide with closed doors what changes should be made in respect to Medical Education and Examination, in order to carry out efficiently the intentions of the Medical Act of 1858.

The Obstetrical Society re-assembled after the vacation on Wednesday last, October 8th. A long and elaborate paper by Mr. Hopkins Walters, of Reading, was read, in which was related a remarkable case in which the entire uterus was torn away by a midwife, but the patient, nevertheless, recovered. Mr. Walters illustrated his case by an exhaustive *resumé* of every similar case on record that he had been able to find. As, when cases of this kind occur, criminal proceedings often arise out of them, the summary of published experience which Mr. Walters put before the Society will greatly assist those who may have to deal with these painful cases. The paper elicited some valuable remarks on the explanation of such occurrences from Dr. Braxton Hicks, and some discussion took place on the light in which such cases should be regarded when medico-legal evidence is required concerning them. Dr. Herman, and Dr. Robert Barnes were of opinion that the rarity, difficulty and suddenness of these emergencies were such, that blame should not be hastily laid upon the medical man or midwife who should be unfortunate enough to meet with an accident of the kind, and with these speakers the writer of the paper concurred. Others on the contrary took a harsher view.

The death-rate of the metropolis rose again last week from the low figure at which it had stood in the previous week. It was, however, still only 17·2 per 1,000 and the number of deaths was 115 below the ten years' average. Nearly half of this figure, viz., 62, was due to the favourable zymotic return, the zymotic death-rate per 1,000 standing lower than it has done in any previous week in the year. The deaths from small-pox, diphtheria, and diarrhœa and dysentery were all above the average, but, on the other hand, the deaths from scarlet fever, measles, whooping cough and typhoid were all considerably below the average, to the extent namely, of 46, 8, 17, and 10 respectively. The deaths from respiratory



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past seven weeks.

diseases were 22 more than in the previous week, but were still 67 below the average. The mean death-rate of the 28 great towns was 20·1, and the mean zymotic death-rate 3·3 per 1,000. Halifax showed the highest general death-rate, viz., 31·4, while Preston, with a general death-rate of 29·4, had a zymotic death-rate of 10·0, chiefly due to the fatal prevalence of diarrhœa. The Scottish and Irish capitals had both high zymotic death-rates, viz., 4·4 and 4·9, but the general death-rate of Edinburgh was lower than that of Dublin by more than 10·0 per 1,000, viz., 16·1 as compared with 26·3. All these figures receive a new interest in the light of the very suggestive address by Dr. Grimshaw, the Registrar-General for Ireland, which we publish in full in another column.

The Congress of the Sanitary Institute of Great Britain in Dublin was brought to a successful issue on the afternoon of Friday, the 3rd instant. The President, Sir Robert Rawlinson, C.B., took the chair at the closing meeting, which was held in the new Lecture

Rooms of Trinity College. The President announced that the Council had accepted an invitation to meet next year at Leicester. He then moved a hearty vote of thanks to the Provost and Senior Fellows of Trinity College, the President and Fellows of the King and Queen's College of Physicians, the President and Council of the Royal College of Surgeons in Ireland, the Council of the Royal Dublin Society, and the Dublin Sanitary Association. The motion was carried by acclamation. Votes of thanks were also passed to the Right Hon. the Lord Mayor of Dublin, to the President and Sectional Secretaries, and to the Press. In the evening, Dr. Alfred Carpenter, Chairman of the Council of the Sanitary Institute, delivered a lecture in the Antient Concert Rooms on "Education by Proverb in Sanitary Work," at which there was a large attendance.

Dr. Carpenter's lecture did not quite square with its title, "Education by Proverb in Sanitary Work," the only utterance that he quoted as a proverb and wished to have written in letters of gold in every council-chamber in the kingdom, being this, "that the expenditure of money by the Local Authority will be repaid to them tenfold in the better health of the people." For a sanitary proverb, Mr. Maguire, who read a paper on the same day, easily carried off the palm with his Irish version of a well-known maxim, "The best way to prevent what is past, is to put a stop to it before it happens." Still Dr. Carpenter's lecture was a most eloquent plea for perseverance in sanitary work. In his praise of the Mosaic dispensation he bettered even Dr. B. W. Richardson. In the sweetening of the waters of Marah by the branches of a tree, he sees a foreshadowing of the sanitary occupation of tea-drinking. In the burning of incense he finds the germ of our modern disinfection; in the blue-ribbonism of Mahomet he traces the beginnings of the modern sanitary crusade against drink; and in the Friday fast of the Roman Church he discovers hidden a sanitary teaching of the highest moment. The rest of the lecture was of a less startling character.

Saturday was devoted to excursions to the Vartry Waterworks, at Roundwood, in the county Wicklow; to the extensive railway works of the Great Southern and Western Railway, at Inchicore; and to the far-famed and beautiful scenery of Killiney and Bray. On Saturday evening, the 4th instant, a most successful Hospital Fête took place at the Sanitary Exhibition at Ball's Bridge, Dublin. Several thousand persons were present, and as the weather was exquisite the *fête*, which was partially *al fresco*, was thoroughly enjoyable. Not the least novel and attractive item in the programme was a view of the total eclipse of the moon, which was proceeding at the time.

The new wing lately opened at St. Mary's Hospital, by H.R.H. the Princess Louise, afforded the Medical Officers and Lecturers of the hospital the opportunity of celebrating the opening of the Medical Session by an unusually large and successful *conversazioné*. About 2,000 guests visited the hospital during the evening of Thursday, the 2nd instant, and there was a very general expression of surprise and pleasure at the attractiveness of the entertainment. In the hospital the whole of the ground floor was thrown open and the rooms were excellently decorated by Messrs. Gillow. In the refreshment department there was among other things a supply of bird's-nest soup presented, on behalf of the Chinese Government, by Mr. Duncan Campbell, Commissioner for China to the International Health Exhibition. The out-patients' rooms were beautifully decorated by Mr. William Morris, with the help of wares lent by Messrs. C. B. Pare & Co., Messrs. Procter & Co., and Mr. Samuel. In the Medical School buildings which have been lately considerably enlarged, Messrs. Marshall and Snelgrove had shown considerable taste and judgment in decoration. The entrance room was decorated in an Oriental fashion and was very much admired. Some beautiful china and pottery were lent by Messrs. Doulton and by Mr. Mortlock. Quite the most attractive feature of the evening was Mr. Tayler-Smith's "Economic Electric Domestic Lighting," which was shown chiefly in the museum. The value, from a hygienic point of view, of electric lighting in habitations in the place of gas, lamps, or candles, is so great that we have thought the subject worthy of a separate article. All the decorations and exhibits that we have referred to were most liberally lent by the various firms above named. There were also exhibitions of new instruments and interesting microscopic preparations. Among the latter some cholera bacilli were to be seen by those who cared to inspect them, though one lady positively declined to look at them for fear of infection. It remains for us to add that the musical performances were quite in keeping with the rest of the entertainment.

Our Edinburgh correspondent writes:—The Anatomy-rooms in the University and Extra-mural School were opened for the winter on the 1st instant, and already a large number of men are at work. The rooms in Surgeons' Hall have undergone extensive structural modification, and are now much better adapted for their purpose. The changes in the junior teaching staff of the University are not numerous. Dr. Lockhart Gibson has resigned the senior assistantship to the Professor of Physiology. This is much to be regretted, as his departure is a distinct loss to the school. It is not satisfactory to find that one who has proved himself a capable and popular teacher, and who promised well as a physiologist, should have had so little encouragement to stay among us as he has apparently met with. Under circumstances like this, the foundation of a School of Physiology in Edinburgh seems a remote possibility. Dr. G. F. Alexander is, we believe, promoted to the vacant post. Drs. Mackay and Fraser join the staff of the Professor of Surgery. In the Extra-mural School Dr. Alexander Bruce commences a course of General Pathology; Mr. Cathcart begins to lecture on Surgery, and Mr. Macdonald Brown on Anatomy.

We understand that there is a proposal to hold a meeting of Edinburgh students at the beginning of the

session, for the consideration of the subject of note-taking in connection with the systematic lectures. Whether this leads to any immediate result or not, it is undoubtedly a wise step, for it is only by ventilating their grievance in the matter that the students can ever hope to see any change in the present absurd system. The professors show no signs of offering any remedy for the evil, and nothing short of popular agitation seems capable of meeting the case. Last winter, as the result of some pressure, a small "fasciculus," containing the gist of the lectures on the Respiratory and part of the Digestive Systems, was obtained from the Professor of Physiology. The notes were excellent so far as they went, but cover but a small portion of the course. As there is no appearance as yet of any further contribution, it is to be hoped that the projected meeting will have the effect of calling attention to the matter, so that "Fasciculus No. 2" may appear on the scene without the prolonged latent period exhibited by the second part of the same author's text-book.

Professor Cossar Ewart has sailed for the United States in order to make some investigations in connection with fishing and fishing stations. His duties at the First Professional Examination at Edinburgh are, we understand, to be performed by Dr. Ramsay H. Traquair, of the Science and Art Museum.

With reference to the attendance of medical witnesses in small debt actions, our Glasgow correspondent writes—Last week, in the Small Debt Court, Dr. Alexander Henderson Patrick was fined in the sum of two pounds for not attending the court and giving evidence in the case of a man who was injured in a ship-building yard. It was stated for the doctor that he had professional duties to attend to which prevented him from being present, but this seemed of no avail with the sheriff, for in another case, which followed immediately after, the plaintiff, who sued defendant for 12*l.* for assault, was non-suited. Dr. Matthew Martin was subpœnaed to give evidence for the plaintiff but failed to put in his appearance. The sheriff advised the plaintiff that though the case had gone against him, he should make application to the doctor for the payment of the full penalty. The extraordinary part of this state of things is, if the medical men had been present and had given their separate evidence, they would have received *no* fee for their attendance, supposing the plaintiffs had lost their case, because they were poor cases. The law in regard to medical men attending courts and giving evidence seems to stand in need of some change from its present state. We stand in need of many reforms in this city. If a suspicious death takes place, even although suspicion is strong, unless the Procurator Fiscal thinks fit no enquiry is instituted.

Our Paris Correspondent writes:—The post of Director-General of Public Assistance at Paris is vacant, in consequence of the resignation of M. Quentin. A difference of opinion with Government authorities is said to be the cause of M. Quentin's resolution. The four years during which he has held office have been marked by the steady progress of *laïcisation*, that is, by the removal of Sisters of Charity from Paris hospitals, and the substitution of lay *surveillantes* in their stead. The lay system had always prevailed in some distant establishments, such as La Salpétrière and Bicêtre, but the central hospitals had always been in the hands of some religious order (Augustines, Sœurs de Saint Vincent de Paul, &c.). The well-known temper of the present Municipal Council led to the introduction of the lay element. Various establishments passed out of religious hands, and were organised upon secular principles. St. Antoine, La Pitié, Lourraine, Cachin, Laënnec, and other establishments were successively *laïcised*. But when M. Quentin attempted to follow out the same system at Ivry, the sisters of that hospice, who appear to enjoy great influence at headquarters, were successful enough to resist the Director, through application to the Minister of the Interior, M. Waldeck Rousseau. Upon this, M. Quentin resigned.

That Sisters of Charity are in most cases diligent and well-trained nurses cannot for a moment be disputed. But in former times they unquestionably exerted a sort of tyranny which extended not only to patients, but to the medical staff itself. Guy's Hospital has recently been the scene of a similar battle between doctors and nurses or matrons, in which the medical body got the worst. In present times, however, the state of things is so different that no aggression can be anticipated from that quarter. A large number of our hospital physicians now stand up in defence of Sisters, and this, apart from any clerical proclivities, on the ground of greater competence, assiduity and economy. A Sister costs the Administration 8*l.* per annum, her services being, of course, unpaid. The salary of a *surveillante* is 24*l.* (besides other advantages), and however inadequate this remuneration may be, it represents an important sum when multiplied by the large number of persons who fill that post. Public assistance in Paris is bitterly poor. Its revenues amount to about 80,000*l.* per annum: its expenses to 900,000*l.* per annum. The deficit is made up by the Municipal Council, which, like a local Parliament, votes annually the Budget of the city. The situation of M. Quentin's successor will therefore be one of great difficulty. If, in accordance with orders from above, he refuses to *laïcise*, the Municipal Council will reject the Vote of Supplies, and Government will be obliged to interfere. No wonder that hitherto nobody has been found to accept so difficult a position, and that M. Quentin's place has not yet been filled.

The lady students of Paris are getting up a petition to be allowed to compete for the situations of *interne*, or house surgeon, in the Paris hospitals. The *internes* are annually appointed by competitive examinations, and fill their post during four years, acting in many cases as substitutes to the physicians and surgeons of the medical staff. Up to the present time these honours had been reserved to the male sex; but the lady students, with that pushing tendency which has always characterised the female element, now insist upon "equal rights." Whether a lady is apt to meet all the

emergencies of medical service in hospitals of 600 or 800 beds is a point which experience alone can decide.

Dr. Wolfe, of Glasgow, is at present in Paris, where he has been invited to come by several distinguished French oculists, who offered him cases, to show his operation for detachment of the retina, which has excited so much interest. He has already operated on several patients, and proposes to address the Academy of Medicine upon the subject.

Amongst the many interesting papers read at the meeting of the French Association for the Advancement of Science at Blois, last month, was one by M. Hayem, on the examination of the blood as an aid to diagnosis in acute disease. His idea is to watch the phenomena of coagulation under the microscope, and thus to estimate the quantity of fibrin the blood contains. After describing the apparatus he uses, he laid down certain general principles as the result of his studies. If the blood was found to coagulate without giving rise to a fibrinous reticulum, pyrexia might safely be diagnosed, probably typhoid fever; if, on the other hand, there was an increase or thickening of the fibrin of the blood, typhoid fever could be excluded. In other febrile states the fibrin was increased, and this fact served as a diagnostic point differentiating them from typhoid fever. Some inflammatory diseases, however, formed an exception to the rule, and were not accompanied by any increase in the fibrin. As an instance of such exception he mentioned typhoid pneumonia, but when pressed for an exact definition of this disease, as apart from acute pneumonia, he was obliged to admit that the matter was one of great difficulty.

Another name has been added to the list of famous workers and teachers of the past, that of Herman von Zeissl. He died in Vienna on September 23rd. A contemporary and fellow worker with Skoda, Rokitansky, and Hebra, he made for himself a reputation as a syphilographer which attracted vast numbers of students of all nations to the Great Hospital in Vienna, and his text-book on the subject enjoyed an exceptionally large circulation. Compelled by ill-health to retire from work during the last few years of his life, he carried with him into retirement the respect and affection of his colleagues, students, and patients alike. The great gathering of friends which was brought together on the occasion of his funeral, bore silent testimony to the widespread feeling of regret at his loss.

Zeissl, writes our Vienna correspondent, was born in 1817, at Vierzighuben, near Zwittau, in Moravia. After having passed through the school of his native village he was placed at the gymnasium of Leitomischl (also in Moravia), and subsequently at that of Brünn. In the year 1839 he entered the Vienna Medical Faculty, where he devoted himself with much zeal and diligence to his medical studies. In 1845 he took the degree of Doctor of Medicine, and in the subsequent year that of Surgery. After holding various resident posts in the wards of the General Hospital, he was admitted as a "secundarius of the second class," in the wards for dermatology, which were at that time under the direction of Hebra. Here he had a good opportunity of displaying his great ability, especially in the differentiation of syphilitic and non-syphilitic diseases. The great interest which Zeissl took in this special branch of dermatology induced Hebra to offer him a ward exclusively occupied by syphilitic patients in order that he might make special enquiries in this direction, and he further encouraged him in the study of the literature of the subject. In 1850 he was appointed "Privat-Docent," his inaugural address being entitled "A compendium of the pathology and therapeutics of syphilis and venereal diseases." This passed through two editions in the course of six weeks. In 1860 he received the Extraordinary Professorship, and in 1864 he published his chief work "A Manual of Constitutional Syphilis," which brought him considerable scientific reputation as the founder of the German dualistic school. In 1869 he was named director of the second ward for syphilis which had then recently been formed in the General Hospital. He filled this office up to a year ago, when he resigned it on account of bad health. Zeissl was the recipient of several distinctions. After the retirement of Sigmund he received the honour of "Regierungsrath," and when he gave up his post of director he was knighted. Besides these distinctions he possessed the Russian Stanislaus Order. Hermann Zeissl was not only an eminent scientific investigator, but also an excellent teacher, a good-hearted man and a sincere friend. Science and humanity will always remember his name with love and esteem.

Among the many pleasant recollections which all members of the late International Congress have brought back with them from Copenhagen, that of the reception and supper at the Christiansborg Palace will always hold a prominent place. The spontaneous and wholly unexpected invitation of the King and Queen, and the interest and hospitality displayed by their Majesties in person, gave to the whole entertainment an air of genuine national welcome and served at the same time to emphasise the universal feeling of the International importance of the Congress. With the recollection of that remarkable entertainment still fresh in the mind, the grim account of the destruction by fire on Friday last of the scene where it took place will have aroused feelings of something more than the complacent regret which is customary on such occasions. The building was one of the striking features of the town although not a thing of beauty in itself. Its bluff frontage to one of the most frequented canals and thoroughfares, unornamented except by four colossal bronze statues, gave an impression of solidity and strength which is often wanting in the more ornate royal residences in many continental towns. Within the palace, beauty and strength were admirably combined in the decoration of the Riddaisal, in which the King of Denmark welcomed his guests of the Medical Congress only two months ago. It is most satisfactory to learn that the valuables and pictures have been saved from the fire and it is probable that within a few years a new palace will have arisen upon

the same site, which has been devoted to royal residences since 1168. The medical profession owe a debt of gratitude to the Royal Family of Denmark and to the city of Copenhagen for their magnificent recognition of the deserts of a noble science, and will now offer to them an expression of sincere sympathy in the loss which this great disaster has entailed.

Mr. Bushby, the magistrate at Worship Street, is evidently more sensible in his opinions than parliamentary in his expression of them. A person applied to him on Tuesday with the view of achieving the destruction of a dog which had bitten him, as well as other people. The applicant said that he feared he would fall a victim to hydrophobia unless the dog were destroyed, a course which his doctor had advised. Mr. Bushby replied that his medical adviser must be a goose; and gave some very sensible advice in contravention of the said doctor's. The comparison was a not altogether unfelicitous one.

Rumour has it that a proposal is on foot for the capitalisation of the Government grants to the Dublin Hospitals, and for the founding of one or more large and central hospitals or infirmaries, a condition being that a first-class medical school shall become attached to the new hospital or hospitals. In the interest of medical science and education it is to be hoped that so desirable a project should be realised, more particularly as from their undue number and divided resources the Dublin Hospitals are at present in anything but a satisfactory state.

The lecture on the rearing of hand-fed infants, which Mr. Edmund Owen delivered at the Health Exhibition in August last, has recently been published with an introduction by Dr. Charles West. Mr. Owen's advice and directions are eminently sensible, and are expressed in a way calculated to impress the class of mothers for whom the lecture is intended. We regret to see that he has omitted to describe Dr. Frankland's method of preparing the so-called "artificial human milk," which is now made and used with success in many nurseries. Dr. West's introduction contains an eloquent plea for "suckling," and an anathema against "hand-feeding" where the mother can nurse her own child. Unfortunately, the folly and selfishness of the modern mother are too often proof against the most impassioned appeals to their sense of duty.

Medical men often witness the unwholesome and disagreeable consequences of delayed interments. Burial, which is too precipitate in France, is too long delayed in England, especially with uneducated people. It is cruel for those who ought to know better, to foster delay in the removal of the dead from the apartments of the living. Yet the following was the action of a country coroner:—A death occurred on (say) a Tuesday; the inquest was not held until Friday, on which day an eye-witness thus describes what he saw: "The most advanced state of decomposition I have ever seen. . . . The face enormously swollen; green; a bloody froth, with a considerable quantity of gas exuding from the lips; and a very powerful odour." Now, why was this inquest delayed? Why were the poor people subjected to these horrors? No reason for the delay in holding the inquest was alleged; and one cannot but think that if a medical man were thus slack in his duties he would receive small mercy. Promptness is as much a duty in country districts as in large towns, and it is for the cultured classes to set the example thereof, and not to sink into the ways of sleepy hollow.

The medical men of Exeter have been obliged to make a stand against a curious piece of injustice. It has long been the custom, when a case of lunacy was reported by the relieving officer, for the city magistrates to give him an order for the district medical officer to visit and report; or if the alleged lunatic was in the workhouse, then the order was made out for the medical officer of that institution. But of late some of the city magistrates have chosen to ignore the district medical officers, and to desire other medical men to act instead of them. These other medical men, having of course declined to act under such circumstances, have been in several instances threatened with legal proceedings to compel them to do so. Threats of this description cannot really be carried out, yet they may give considerable trouble and annoyance. With commendable unanimity, the whole profession in Exeter have resolved to stand firm in the matter, and to refuse to encroach on the emoluments of their brethren engaged in union practice. The growing tendency of local magnates to compel medical men at the point of law to do this or that, will not escape the notice of our observant readers.

The first number of the *Medical Chronicle* gives promise that the publication will be a really good *centralblatt* of medical information. Twenty-eight pages out of the one hundred and twenty are occupied by five original papers of considerable value, the list being headed by a useful essay from the pen of Dr. W. Roberts, on "Tests for albumen in the urine." The *Chronicle* consists of well-made abstracts of recent medical work, under a classified arrangement, and is especially remarkable for a due regard to the importance of the contributions chosen for abstraction. It shows no sign, so common in publications of this sort, of the choice of matter being dependent on the convenience of the writers of the abstracts; and the authors of all countries and languages receive their fair share of attention. In these points this work presents a striking contrast to any other English attempt at giving a *resumé* of contemporary medical writings, and should its future contents not belie its present fair promise, it will doubtless secure the eager patronage of all medical men, whether authors or students, who desire a really good record of medicine, and cannot help being dissatisfied with the perfunctory nature of all that is at present offered to them to supply their wants. This periodical, being almost entirely the work of Manchester men, is an important sign of the vigorous medical life in the provinces which cannot but be regarded with much satisfaction as conducive both to professional and social good.

Under the title "What is to be done in time of Cholera," Professor Tommasi-Crudeli, of Rome, in an address recently delivered before the Royal Academy of Science in Arezzo, discusses at some length the question of quarantine. Starting with the axiom, that without the introduction from abroad of individuals affected with cholera, or of cholera-infected garments, the advent of the disease is impossible in Europe, he maintains that theoretically quarantine is the best, if not the only means of warding off an epidemic. Thus in 1865 and 1866, when Italy was suffering from cholera, originally imported by way of Alexandria, the feeling of the populace being general in support of a rigorous system of surveillance, no single case occurred throughout Sicily until the arrival of troops from Naples in consequence of revolutionary disturbances in Palermo. The first reinforcements landed on the 18th of September, and on the same day some of them sickened with the disease. The epidemic spread to the city, and from the city throughout the island, and it was not till the end of 1867 that its ravages finally ceased. Yet, until this violation of the quarantine, Sicily had retained its immunity for more than a year. Practically, however, he considers that sanitary cordons are of no value, unless it be in the case of small islands or naturally isolated districts. "The Franco-Italian frontier," he says, "is certainly not one of these exceptions. The smugglers alone are sufficient to render the system a failure. For if they ordinarily show but little fear of the rifles of the custom-house officers, it is hardly likely that they will be deterred by the lesser punishment which threatens the violation of the *cordon sanitaire*." The result is, that people in easy circumstances, who travel by rail or carriage, are kept out, while the poorer classes, who are much more likely to import the disease, pass on foot through the cordon with comparative ease. Putting on one side the immense expense and trouble entailed, the check on commerce, and the impoverishment of the lower classes which must naturally result, Dr. Crudeli regards the cordons with their accompanying lazarettos as something worse than needless. The latter, he says, become true foci of cholera infection. Travellers crowded together in them, under not too sanitary conditions, become infected, and while the disease is still in the period of incubation they are released, only to develop it on their arrival at their destination. Our Indian possessions have given us an experience of cholera second to that of no other nation, and our best authorities agree with Dr. Crudeli as to the inutility of quarantine, except in special instances. That an epidemic of cholera may be at least delayed, if not entirely kept off, by the protection of the sea-board of islands is possible, but frontier quarantine is, to use the professor's words, at once expensive and ridiculous.

"Dr. Klein," the public is informed by a newspaper telegram from Calcutta, "does not believe in Dr. Koch's bacillus. Dr. Klein has proved its harmlessness by swallowing a microbe himself." After this satisfactory announcement the further statement that "Dr. Klein is coming to Calcutta for the purpose of further investigation" seems an indication of wastefully superfluous energy, unless these investigations are to determine whether this edible microbe, presumably indigenous in Hindoostan, can be made available for supplementing the admittedly scanty fare of the native labourer. But, having caught, cultivated, and cooked our microbe, we are tempted to ask whether he should be swallowed whole, "or how?" Truly the little knowledge which our lay contemporaries occasionally serve up for the delectation of their readers is sometimes presented in a form more mirth-provoking than dangerous.

A recent number of the *Boston Medical Journal* publishes the following "Medical Fable:"—Once upon a time a poor but humane physician was travelling along a road which led by a dark forest, when he saw by the wayside a sick and miserable dog which had lain down to die. Moved with pity, he got down from his carriage, picked up the poor animal tenderly, and gave it some food and drink. Suddenly the dog vanished, and he saw standing before him a beautiful fairy. "You have saved me from a miserable doom by your compassion," she said. "Command now anything you wish, and it shall be yours." The astonished physician replied. "I am a poor man, I should like to be rich." The fairy waved her wand and extended to him a piece of paper and a bottle filled with a dark-coloured fluid. "Here," she said, "is a prescription for an Infallible Compound Hair Restorer. It will never fail, and it has been endorsed by all the leading clergymen on both Continents. The world is yours! Do you wish more?" "I am a quiet man," replied the doctor, "and little known. I should like to be famous." "You shall be more; you shall be immortal." Waving her wand again, she presented to him a small, dark, and curiously shaped instrument. "See," she exclaimed, "it is a new and 'Unquestionably Perfect Pessary.' It radically restores every malposition. Your name is blown into the side. Generations of suffering women and successful doctors will read, and bless you. I have tried it myself," she added, blushing a little, and vanished.

FORBIDDING THE BANNS.

Most of our readers will be glad to hear that the arrangement made between the Royal College of Physicians and the Royal College of Surgeons for the appointment of a conjoint examining board received the formal sanction of the General Medical Council on Thursday, and has thus been placed in a fair way towards realisation. Before the scheme came on for discussion in the Council, it seems to have been generally taken for granted that it was impossible that there could be any just cause or impediment why the proposed union of the Colleges, in respect of their diploma-granting powers should not be consummated. The evils attending a multiplicity of licensing bodies are so obvious and so undisputed that an arrangement which practically rolls two of the most important of them into one has been accepted as a boon, we may almost say without enquiry, by the Fellows of the Colleges concerned as well as by the medical press.

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The Fellows of the Colleges were no doubt justified in assuming that their respective Councils, who are nothing if not conservative, would enter upon no arrangement which would be detrimental to the prestige or the privileges of the institutions under their charge ; while the organs of medical opinion, not excepting the *Lancet*, are too radically inclined not to welcome any change which appears in the guise of a reform. The proposed union, however, loose as it was intended to be, has not been allowed to be completed without a protest. Dr. Quain—who, if he were in the House of Lords, as some of us would wish to see him, would no doubt find his place on the cross-benches—has seen grave reasons to dissent from the views of his late colleagues on the Council of the College in Pall Mall, and besides actively opposing the scheme in the Medical Council, has published a vigorous protest against it. This protest appears in the form of a letter addressed to the Fellows, and its author is at pains to show (1) That the course of education and the examinations required to be undergone by candidates for the College Licence form a sufficient guarantee of fitness to practise physic in its widest sense as defined by law and precedent, viz., Medicine, Surgery, and Midwifery. (2) That the licence is in itself a full and legal qualification to practise all the above branches, and that as the College is not only authorised but required by law to examine the candidate in Surgery, it would be unjust and illegal to compel every candidate for the diploma to pay an additional fee of more than twenty guineas for another diploma which he does not desire to have. (3) That the proposed change would be injurious to the interests alike of the public, and of the profession, and also of the College, the authorities of which are bound by duty and honour to hand down unimpaired to their successors the great privileges which their predecessors have handed down to them. Theoretically, no doubt, Dr. Quain has conclusively proved his theses, and on the point as to whether the College may legally refuse the request of a candidate to be examined by it in Surgery, as it proposes to do, we think that his arguments demand the most serious consideration before the scheme is allowed to be carried into effect. We are as confident as he is that a body of honour, integrity, and dignity like the College of Physicians will not "knowingly adopt and pursue an illegal course, waiting until the action of the law is called upon to check it," and we cannot believe that the College has gone into the present scheme without first obtaining an opinion from counsel that it might legally do so.

When, however, we come to look upon matters from a practical point of view, we cannot believe that the effects of the proposed change are likely to be so serious as Dr. Quain depicts. It may be quite true that the Licence of the College is a complete diploma, giving its possessor the right to practice Surgery as well as Medicine and Midwifery, and we will grant Dr. Quain that the College is competent to carry out an examination in Surgery. But it is a plain fact that the vast majority of London students are not content with the Physicians' Licence alone, but, as a matter of course, take the Membership of the College of Surgeons in addition. Mr. Marshall, in the course of his able speech in the Council on Wednesday, showed that of the first 2,450 names on the medical register, there were 153 Licentiates of the Royal College of Physicians, only six of whom had no other qualification, while as many as 139 had taken the M.R.C.S. Dr. Quain subsequently admitted that the same is true of the rest of the 1,700 practitioners who hold the licence, 93 per cent. of them also holding the College of Surgeons' diploma. It is true that the yearly number of licences granted is steadily and even rapidly increasing, but it is difficult to imagine, and, in our opinion, unwise to desire, that the College of Physicians should ever be able to compete with the College of Surgeons in regard to the popularity of its licence as a surgical qualification. It may be taken for granted that ninety-nine out of every hundred successful candidates for the licence will, for years to come as they do now, take the Membership of the College of Surgeons as well, and the arrangements of the College of Physicians must necessarily be mainly guided by the interests of the ninety-nine, rather than by the interests of the one. No doubt if the scheme comes to anything a way can be found by which the interests of the latter will be as well served as they are now. But it seems to us that if the College believes that the ninety-nine can be examined with greater efficiency and economy by means of its arrangement with the College of Surgeons, it is bound to enter into it. The interests of the students ought to be the first consideration. The Colleges exist for them, and not they for the Colleges, so that if the conjoint arrangement should render it possible to considerably reduce the fee for the double diploma, as, of course, in time, it will do, this advantage of itself should be regarded as an ample set-off against any such sentimental disadvantages as loss of prestige or privileges on the part of the Colleges.

Dr. Quain has dwelt eloquently and ably on the privileges that his College will lose by the proposed scheme, but he has said nothing as to what it will gain. To an impartial observer, however, it must be evident that its gains are likely to far exceed its losses. The College of Surgeons, it must be remembered, also renounces its independent privilege of giving a qualification, and as it at present awards every year nearly two diplomas for every one awarded by the College of Physicians, it is obvious that it will lose much more by the scheme than the latter College. The practical effect will no doubt be that many more students will be driven to take the licence of the College of Physicians than take it at present.

Dr. Quain points out that the College of Surgeons cannot give a complete diploma, and in his speech he compared its arrangement with the College of Physicians to the diplomacy of the fox which had lost its tail. But coming again to matters of fact we discover that the practitioners practising with the M.R.C.S. alone are more than twenty times as numerous as those practising with the L.R.C.P. alone. Having taken the trouble to go through the first two letters in the Medical Register, we find 126 names with the former diploma alone, and only five with the latter diploma alone; and we have no reason to suppose that the same proportion does not obtain throughout the rest of the letters of the alphabet.

It is clear then that the gain to the College of Physicians from the proposed scheme is likely to be much greater than that of the College of Surgeons. We fully agree with Dr. Quain that "the close association of the whole profession with the College of Physicians should be encouraged," but we think that the conjoint scheme is much better calculated to secure that end by the inducement it will offer to students to join the College, than the policy that Dr. Quain advocates.

For our own part we should like to see the Colleges bound together in a much more intimate union than that which they contemplate. We see no reason why they should not give up their separate existence, and be merged in a Royal College of Physic with one President, one Council, and one local habitation. The progress of science is daily lessening the space that once separated Surgery from Medicine, and even were it otherwise they could never be so diverse from each other as are the branches of learning that find room enough to grow up side by side under the shelter of a single university. It would not be an ill-assorted marriage. The College of Physicians has lineage, the College of Surgeons has, or will have, wealth. Together they could be much more useful and influential in the State, in the profession, and in the field of science than they can ever hope to be separate. Let us ask, would any one have ever talked of a Medical Bill, or if a bill had been thought necessary would any talking have availed to defeat it, if an English College of Physic had declared for or against it? In the present temper of our leaders, however, such considerations are, we suppose, purely visionary.

THE PROGRESS OF THE OVER-PRESSURE QUESTION.

In a former article on Dr. Crichton Browne's report to the Education Department on Over-pressure in Elementary Schools and the officially-inspired memorandum by Mr. Fitch which accompanied it, we credited the latter gentleman with scoring a dialectic victory, though we endorsed all that was essential in Dr. Browne's conclusions, and considered that he had amply made out an important case for further enquiry. It will be evident now to any fair-minded person who reads Dr. Browne's letter to the *Times*, of the 8th inst., that the victory such as it was of the Inspector of Schools was very cheaply won. It is easy to be trenchant and superficially logical when we can assume and arrange our data to support what is apparently an inference, but really a foregone conclusion; and that this has been Mr. Fitch's method is clearly shown by Dr. Browne's letter, which is at once a complete vindication of himself, and a crushing reply to every important charge made by his opponent. It is needless to repeat and refute again the gratuitous and somewhat absurd attack made by Mr. Fitch on Dr. Browne's personal fitness for undertaking the investigation entrusted to him by Mr. Mundella; while the "deficient preciseness," to say the very least, of most of the Inspector's statements, most certainly disqualify him for reflecting on Dr. Browne's knowledge of the nature of scientific evidence.

It now appears that, contrary to Mr. Fitch's contention that the schools visited by Dr. Browne were all in one district, the report was based on enquiries instituted over a very wide area, comprising eleven schools scattered over North, South, East, and West London; and further, that Mr. Fitch accompanied Dr. Browne on his visits to only *three* of these, remaining one hour-and-a-half, one hour, and ten minutes, respectively, at each school; Dr. Browne's visits, on the other hand, being all of five or six hours' duration. These facts are enough in themselves to take the sting out of Mr. Fitch's criticism of Dr. Browne's method of enquiry, and to deprive of all its previously apparent force the grave assertion that Dr. Browne's report contained not a line which deserved the name of proof. The remarks, indeed, made by Dr. Browne on this point in his recent letter to the *Times* more than justify our former opinion that his methods of enquiry were not deserving of being stigmatised as slipshod, either from a medical or logical point of view; and had we not been irresistibly led to believe from Mr. Fitch's own words that he had been present at the major part of Dr. Browne's examinations, it would have been impossible to give even a modicum of real weight to any statement whatever in the official memorandum. Dr. Browne has now made it quite clear that his conclusions rested on a far greater array of facts than appeared to be the case from the statements contained in his opponent's official gloss. There is one more point in Dr. Browne's reply to Mr. Fitch, which, though of subordinate importance as regards the main subject, is yet of some gravity, and imperatively demands an explanation from Mr. Fitch. The question has to be answered how it was that Mr. Fitch believed Dr. Browne to be merely a "private enquirer," when the President of the Education Department stated in the House of Commons as long ago as February 19th, that he had invited Dr. Browne to visit some of the public elementary schools in London in company with one of Her Majesty's Inspectors (that inspector being Mr. Fitch), and to favour him with an opinion of their work from a sanitary point of view.

It is now more than ever clear from this controversy that further investigation should be made by the Government on this matter, and should any corroboration of this contention be asked for it may be found in the great consensus of medical opinion shown in the correspondence on over-pressure which has recently appeared in our columns. The letters we have received on this subject are certainly free from bias, representing for the most part the impressions received directly from experience, and by no means conclusions drawn from facts observed with any preconceived object of enquiry. The seven physicians who have addressed themselves directly to the question at issue, all of them on the active staffs of our hospitals for children, are of opinion that cases of chorea in its various degrees, frequent headaches, and disturbed sleep, are often to be attributed to overwork at school; and it must undoubtedly be inferred, though it may not be possible with the data at present at command to demonstrate conclusively the evidence of fatal or permanent effects of over-schooling, that the evils resulting therefrom are of sufficient magnitude and frequency

to arrest the attention of those who administer the Education Code. It is infinitely probable that long-continued disorder of the literally impressionable nervous system of children will have a far reaching and prejudicial effect on the ultimate development of the mind, and permanently damage the delicate structures which it is the avowed object of national education to keep in good working order.

REVIEWS AND NOTICES OF BOOKS.

GUIDES TO MEDICINAL THERAPEUTICS.[1]

THERE is no department of medical study in which the student and practitioner stand more in need of a trustworthy guide than in that of Materia Medica and Therapeutics. It is a more difficult country to find one's way in than the most trackless of jungles, for the luckless strangers who enter therein find themselves at once surrounded and importuned by a thousand self-constituted authorities, shouting themselves hoarse and pointing each in a different direction, like hotel touts at a French railway station. One shouts the praises of this drug and this mode of treatment, another gives him the lie direct and vociferates in favour of that drug, a third politely whispers that both are charlatans and presents his own specific, and so on through all the thousand and one substances, animal, vegetable and mineral, that have been pressed upon a suffering humanity and a long-suffering profession. To the guide who can keep his head amidst all this turmoil, who can push aside the pretensions of this and that specific-monger, and safely show the way through the labyrinth of drug-literature, the student and practitioner have every reason to be grateful. Such a guide should be a man of words few and to the purpose, a man of decision who knows his own mind and can inspire confidence in his clients, a man who has read much, thought much and doubted much, and lastly, a man of culture and science, in the best sense of those words.

Dr. Mitchell Bruce, the first author on our list, has most if not all of these qualifications, and the handbook which he has produced, may be safely recommended to all who wish to have the main facts of materia medica and therapeutics presented to them in a concise and orderly manner. His book is a small one, but in the subject of which it treats, the size of a work bears no relation, except perhaps an inverse one, to the amount of labour spent upon it. The first two parts, comprising an account of the materia medica, have been arranged with much skill, and with the synoptical tables attached to them, will no doubt be found by the student to have many of the advantages of a *memoria technica*, without its disadvantages. The facts of materia medica are so diverse and unconnected that it is only by bringing into prominence the few natural links between them that the student can hope to impress them upon his memory. The action and uses of each drug are given with brevity and with just that amount of authority that the student needs. There is a refreshing absence of the "reputed to be an emmenagogue," "some evidence of its value as an expectorant," and similar doubtful sayings which sorely bewildered the present writer in his student days. It is however on the third part, that dealing with General Therapeutics, that the value and we hope the reputation of the book will mainly depend. It contains the best summary of our knowledge of rational treatment that we have met. It bears signs here and there of a little confusion of thought, and it is perhaps more strictly classified than the subject will bear. But the student who reads and digests it will not fail to gain from it a clear idea of the powers and mode of action, as well as of the limitations, of the drug-cure.

The volume which bears the name of Dr. Binz is the first of three parts in which the distinguished Professor of Pharmacology in the University of Bonn promises to publish his lectures as they are delivered to his students. It was a happy thought to determine to produce a thoroughly readable book on the action and uses of medicines, which should bear very much the same relation to the text-books on materia medica and therapeutics that a good clinical lecture bears to a systematic treatise on the practice of medicine. After a short introductory chapter, the author begins with the subject of anæsthetics, and in a pleasant demonstrative style reviews the action and uses of ether, chloroform, and nitrous oxide gas, touching lightly from time to time on various historical, chemical, and physiological points connected with this group of therapeutic agents. The narcotics are next fully discussed; and here occasion is taken to introduce the subject of poisoning by opium and chloral. Nothing better than this arrangement could be desired in a volume such as the present, for the professional and practical reader can best appreciate the indications for the treatment of poisoning after a thorough discussion of the physiological action of the toxic substance. We question, however, the advantage to the student of pharmacology of having the subject of poisons mixed up with the subject of medicinal remedies, notwithstanding the fact that το φάρμακον signifies both "poison" and "medicine," as Professor Binz is careful to remind us. Iodine, iodoform, and iodide of potassium are, of course, very thoroughly treated, including Binz's own theory of the manner in which the iodides come to act upon the cells as free iodine. Naturally, his theory of the sedative action of the halogen compounds (chloroform, iodoform, chloral, bromides) on the brain is also laid before the reader, but the amount of discussion which this involves is surely somewhat excessive for the ordinary student. This remark brings us to estimate the special use of these lectures. In their present form they will prove of the greatest value to lecturers on therapeutics and possibly to advanced students, but hardly to the rank and file of a materia medica class. Many of the experiments are described in such a way that they could be easily repeated, either in the lecture room or

[1] Materia Medica and Therapeutics, an introduction to the rational treatment of Disease, by J. MITCHELL BRUCE, M.A. Aber., M.D. Lond. London: Cassell and Co., 1884.

Vorlesungen über Pharmakologie, für Aerzte und Studirende, von Dr. C. BINZ, Ord. Professor, &c. Bonn. 1. Abtheilung. Berlin: 1884. A. Hirschwald.

The National Dispensatory, by ALFRED STILLÉ, M.D., LL.D., and JOHN M. MAISCH, Phar.D. Third Edition. London: J. and A. Churchill.

A Practical Treatise on Materia Medica and Therapeutics, by ROBERTS BARTHOLOW, M.A., M.D., LL.D., Professor in Philadelphia. Fifth Edition. New York: D. Appleton and Co., 1884.

in the private laboratory. We have not considered it necessary in this notice to refer to statements of facts by an authority of the rank of Professor Binz. But we must call in question one point. It is said on page 242 that atropia diminishes the intra-ocular pressure. This may still be the common view, but it is fraught with so much danger, through the indiscriminate use of atropia to which it has led, that it is high time it were renounced as being incorrect. When freely applied, atropia even increases the tension of the eyeball.

Stillé and Maisch's *magnum opus*—a volume of nearly 1,800 closely printed large octavo pages—has just reached its third edition. It is considerably larger than previous editions; eighty additional pages having been required merely to give the fruits of recent clinical research. Besides this many additions have been made to the pharmaceutical portion, and an idea of the labour involved in preparing the new edition may be gained from the fact that the general index contains over 3,700 more references than that of the second edition. It is scarcely possible to imagine a more complete compendium of materia medica than the Dispensatory. The paragraphs describing the medical uses of the different drugs are not always entirely satisfactory, and we have in more than one instance found important facts, or at any rate beliefs, omitted. But altogether it is a wonderful compilation, and no author of a smaller manual can afford to ignore it.

A book which has gone through five editions in the course of a few years does not demand a lengthened notice. Dr. Bartholow's work is probably in the hands of many of our readers, and is no doubt valued by them for being thoroughly practical in character, whilst giving succinctly and clearly the physiological action of the drugs which are recommended for use. The prescriptions embodied in the text must be specially useful to the busy practitioner. But in the strength of this book is to be found its weakness. The therapeutical applications of medicines which it teaches are confident in the extreme. In these days, when it is seriously proposed by some authorities to reduce the contents of the British Pharmacopœia to "half-a-dozen really useful articles," it would do therapeutical sceptics a great deal of good to read a few pages of Dr. Bartholow's book; but to ensure conviction on their part we should have to pull them up very shortly, otherwise they might again begin to doubt and to say that all disease appeared to be amenable to medicinal treatment, that "everything seemed to be a cure for everything." Professor Bartholow is too sanguine a therapeutist. Still, this frame of mind is, in the view of the present writer, infinitely to be preferred to that studied disbelief in drugs which too often begins in ignorance and ends in utter carelessness and disaster.

Manual of the Dissection of the Human Body; by Luther Holden. Fifth Edition. Edited by John Langton, Lecturer on Anatomy, St. Bartholomew's Hospital, &c., &c. London: J. & A. Churchill. Pp. 879.—Among the many new books which generally appear at the opening of the medical schools each year, there are none of greater importance than works on anatomy, for they are chiefly intended for and used by the men who are commencing their studies. It is thus highly essential that they should be made to assume as pleasant an aspect as their subject matter will permit. Anatomy is a difficult subject, and for beginners, who are least able to see for themselves the great importance of it, requires a special gift in the writer to invest it with such interest as will draw them on to its study almost in spite of themselves. In our opinion, there are only two really *interesting* works on anatomy, Hilton's "Rest and Pain," and the book before us, "Holden's Dissector." In contrasting this present edition with, say, the second, we find very considerable additions, emendations, and alterations, besides a large number of new woodcuts. There are upwards of 250 additional pages of print, perhaps a doubtful improvement from the purely student's point of view; nevertheless, we are bound to say that the book has grown in scientific as well as practical value *pari passu* with its increasing size; and whatever it was formerly, it is now, under its present editor, not merely a guide for freshmen, but suited to and intended for members of the profession who may wish to refresh their anatomical knowledge. Throughout it is embellished with diagrams and drawings from the subject, which bespeak much artistic power for their original author, Mr. Holden, and which greatly help the student in his work. The text is written in that easy flowing style which gives such a charm and practical value to all Mr. Holden's works, and clothes dry anatomical facts with the living impress which makes them acceptable and fixes them on the memory. If there are any points on which we should feel tempted to offer criticism, it would be on the *instructions* for dissecting some of the parts. Never very long, in some instances these instructions are very short; nor is the importance of carefully noting how a given part is or has been dissected sufficiently insisted upon. In other words, the majority of students would hardly answer a college dissection question satisfactorily from such instructions as are here given. Doubtless the supervision and help of demonstrators will remedy this defect; but we think the book would be still more valuable than it is if it contained a little more instruction in this respect. Students should ever bear in mind that the chief object of dissection is to learn how the body is constructed, rather than the length, breadth, or depth of any particular part. These points will be found in the systematic treatises on anatomy. In a Dissector we chiefly look for the plan on which a part is constructed, and for instruction as to how these parts may be displayed and studied in their actual and relative positions to each other, and to the whole part. The subject is systematically treated from the head to the feet, with chapters on special organs. The style throughout is clear; the descriptions accurate, but brief; and the information up to actual date. The book is admirably published, and we do not doubt that it will fully maintain its reputation.

THE INTERNATIONAL MEDICAL CONGRESS.

International Collective Investigation of Disease.

At the general meeting of the International Medical Congress, on August 14th, it was resolved:—"That the Secretary be instructed to prepare a statement as to the objects of the Committee, for translation and publication in the journals of the various countries represented." Dr. Isambard Owen, the Secretary-General, has accordingly drawn up the following statement:—

The main objects which the Committee seeks to attain through the Collective Investigation of Disease are to widen the basis of Medical Science, to gather and store the mass of information that at present goes to waste, to verify or correct existing opinions, to discover laws where now only irregularity is perceived, to amplify our knowledge of rare affections, and to ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavour to place clearly before the

whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction. It will be a not unimportant incidental result of its work should it tend, as is hoped, to the better training of the members of the profession in habits of scientific and practical observation, and in systematic methods of recording the facts which they observe.

The age in which we live has seen enormous advances in the sciences on which the fabric of Medicine rests, such as Chemistry and other branches of Physics, Physiology, and Pathology. Each of these has taken giant strides. It must be admitted, however, that purely medical knowledge has scarcely made proportionate progress. It cannot be expected that it should do so, as it deals with the aberrations of the most complex of organisms, is of all sciences the most difficult, and demands the greatest patience and the largest accumulation of data.

Hitherto the advancement of Medical Science has been brought about mainly by individual effort. The value of such work in the past we in no way underrate, nor do we desire to lessen the amount of it in the future; but in Medical Science there is much that defies interpretation from individual experience, and many problems so far-reaching in an ever-widening field, with elements so manifold, that no single man, however gifted and long-lived, can hope to bring the whole within his range. The need, therefore, in Medicine, of that combination and concentration of individual work which is adopted in many other branches of science and in commerce, and to which increasing facilities of intercommunication have given so much impulse and so much strength, cannot be questioned. Indeed, it may be said that, resting on individual research alone, medical knowledge can be advanced but slowly and with difficulty. Future progress to any great extent must be the work, not of units acting disconnectedly, but of the collected force of many acting as one. For many to act as one, organisation is needed; that organisation it is the purpose of our Committee to supply.

Disease is many-sided; and we wish to include in our organisation those who see it from every side. All, therefore, whether hospital physicians, family and school attendants, specialists, medical officers of the Army and Navy, and of workhouses and asylums, will be asked to contribute their quota of observation to the common fund.

In England and in Germany organisations for this purpose already exist, through which good work has been accomplished; and a volume entitled the *Collective Investigation Record*, containing tabulated returns, with reports upon them and other matter, is published annually by the British Medical Association. France and Austria are alive to the importance of the new method. In Scandinavia and in the United States the foundations of associations have been laid. Denmark, Russia, and Switzerland are setting their hands to the task. To unite these several associations by an international organisation for the study of various problems, and to induce the formation of similar combinations elsewhere, is felt to be a work peculiarly befitting an International Congress. Our Committee is enjoined by the Congress at Copenhagen to endeavour to carry out this work, and, in compliance with that injunction, it invites the co-operation of all who have at heart the promotion of Medical science and practice.

The following is the proposed method. A subject having been selected, a person or persons of acknowledged authority will be asked to write a memorandum, in the form of a short essay, upon it. The memorandum will succinctly give the present state of our knowledge. It will also point out the directions in which further research may best be made; and, with this view, will suggest a few simple and definite questions upon the subject selected. The questions will relate to matters of fact, to be elicited by observation of cases, rather than to matters of opinion.

The contemplated organisation will, it is hoped, in time enable the Committee to ask and collect answers to these questions from the profession at large wherever scientific medicine is studied or practised. It will be a further duty to examine, arrange, tabulate, and deduce results from the mass of observations thus collected, due credit being given to each contributor for the information he has furnished; and reports on the results of the several investigations will be laid before the International Congress at its next meeting at Washington.

Section of Diseases of Children.

Monday, August 11th.

The Educational Value of Policlinics for the Treatment of Diseases of Children.

In a paper on this subject Dr. Rauchfuss (St. Petersburg) maintained that not the least of the benefits that resulted from policlinics was the diffusion throughout the community, and especially among the poor and the ignorant, of a knowledge of hygiene. If ignorant mothers could only be impressed with the importance of observing at least the elementary rules of hygiene, a vast amount of good would be accomplished. Prevention was better than cure.

The Pathology and Treatment of Cholera Infantum.

Dr. A. Baginsky (Berlin) then read a communication on this disease, which, he said, was to be reckoned, in Berlin at least, as the chief cause of death in infants. The number of cases of the disease in any given summer was in direct proportion to the height of the temperature of the air, but seemed to be only indirectly dependent upon the height of the temperature of the ground, the lowering of the level of the ground water, or the degree of moisture of the atmosphere. The quality of the nourishment and the degree of care which the child received, as well as the situation of the dwelling, were very important factors of the ætiology. Teething had no direct influence on the disease. As regards pathology, the different forms of summer diarrhœa of infants might be divided into—(1) Primary dyspeptic catarrh; (2) Genuine cholera infantum (cholera nostras); (3) Follicular disease of the intestinal tract; (4) Secondary dyspeptic catarrh; and (5) Intestinal atrophy. All these processes were as links in a chain, and might pass one into the other. *Post-mortem* examinations proved the correctness of this statement. Micro-organisms were found in the walls of the intestines, and were perhaps not unconcerned in the causation of the disease. The therapeutic management varied according to the form of the disease with which we had to deal.

Professor Hirschsprung (Copenhagen) then read a paper summing up the result of observations on hæmoglobinuria during the first year of life, and gave a demonstration of this condition.

Dr. H. Rehn (Frankfort-on-the-Main) followed with a paper on so-called acute rickets, in which he attempted to answer the question whether the experiences of later years have enabled us to determine the position of the affection known as acute rachitis. Most of the papers elicited more or less discussion from those present.

On Tuesday, August 12th, the members of the Section, together with those of the Section on Hygiene and State Medicine, made an excursion to the Asylum for Young Girls at the Château Jaegerspris, near Copenhagen.

Joint Meeting with the Section of Hygiene and State Medicine.

Thursday, August 14th.

The Treatment of Chronic Diseases of Children at Sea-Coast Hospitals.

Dr. Schepelern (Refsnaes) read a paper on this subject, in which he advanced the proposition that sea-side sanitaria ought to be kept open the entire year, winter as well as summer. He then spoke of the good results following a winter course of treatment, dwelling more especially upon the value of hydrotherapy in this connection. Among the diseases of childhood in which great benefit may be derived by a course of treatment at sea-side sanitaria, the author spoke more particularly of the scrofulous affections. One point upon which he dwelt at some length was the value of an increase in weight as evidence of the favourable progress towards recovery in scrofula.

Dr. Englested (Copenhagen) read a second paper on the same subject. His views did not differ substantially from those of the preceding speaker.

Croup.

At the afternoon session Dr. Rauchfuss (St. Petersburg) read a paper in which he argued the question as to how far croup can be considered, from a clinical point of view, as a well-defined morbid entity.

In the discussion which followed Professor Virchow and others took part.

Friday, August 15th.

Antiseptic Treatment of Wounds in Childhood.

Dr. Ruppreciit (Dresden) thought the best disinfectant was a one-third per cent. solution of salicylic acid, or for very septic wounds, a four to eight per cent. solution of chloride of zinc. One of the poorest materials for use in operations on children was carbolic acid. The general admissibility of corrosive sublimate solution (1 to 1,000) in childhood was, he thought, questionable. For certain wounds iodoform in small quantities is indispensable. The best material for dressing was gauze impregnated with salicylic acid (five to ten per cent.), or corrosive sublimate (1 part per 1,000), while carbolised gauze was objectionable. Wood-wool cushions are of advantage for certain wounds. Dry dressings are best for fresh, as well as for large suppurating wounds, but for small suppurating wounds moist dressings are more suitable. In these, however, neither carbolic acid nor corrosive sublimate should ever be used. In order to prevent soiling of the dressings with urine he favoured covering them with a water-proof cloth, the edges of the dressings being smeared with grease. Other methods of avoiding irritation from the urine were vertical suspension of the child, frequent changing of the dressings or the permanent bath. In concluding, the author pointed out the special indications for the employment of one or the other mode of treatment of wounds occurring in children.

Professor Jacobi (New York) then presented a communication on primary sarcoma of the kidney in the new-born and in the young.

Prophylactic Treatment of Ophthalmo-Blennorrhœa Neonatorum.

Dr. Sophus Meyer (Copenhagen) read a paper in which he pointed out that ophthalmia neonatorum is an essentially dangerous affection, and that measures of prophylaxis are therefore of especial importance. We do not yet know with certainty the cause of the disease, and we ought to encourage all investigations tending to elucidate this matter. Among the measures employed of late years, that of Credé may be considered the best. It is certainly a very satisfactory one, as since its introduction into lying-in institutions the malady has almost disappeared. Credé's method is not dangerous, and can be employed by midwives just as well as by physicians. The speaker concluded by urging upon his hearers the necessity of inducing midwives generally to make a constant use of the method in every case.

Intestinal Invagination.

A paper on this subject by Professors Hirschsprung (Copenhagen) and Ribbing (Lund) was read. The condition was treated of as it occurs in children, and some remarks were made upon its comparative frequency in different countries. The authors endeavoured to show that the great difference in this respect, as shown by the statistics of the several countries mentioned, was rather apparent than real.

Professor Faye (Stockholm) followed with some remarks on the treatment of scoliosis.

Joint Session with the Section of Hygiene and State Medicine.

Saturday, August 16th.

Normal Increase of Weight in Advanced Childhood.

Two interesting papers on this subject were read by Mr. Malling-Hansen (Copenhagen) and Dr. Vahl (Jaegerspris.) The observations were made upon girls, from four to fifteen years of age, inmates of the Jaegerspris Asylum. The children were weighed in April and October of each year, from 1874 to 1883. It was found that the normal weight of girls at this age increases in regular progression from thirty-two and a half to ninety-eight and a half pounds (16·25 to 49·25 kilos). Up to the end of the fourteenth year the annual increment is eleven per cent. of the weight of the previous year, but after this time the rate of increase falls off somewhat. The increase during the six warmer months is greater than in the six colder months, in the proportion of four to three.

Tubercular Meningitis of Early Infancy.

In a paper with this title Professor Medin (Stockholm) maintained that tuberculosis is frequent in the new-born, occurring sometimes in very severe epidemics, but tubercular meningitis is rare. Even epidemic cerebro-spinal meningitis is of more common occurrence in young infants. The author then spoke of the influence of age and sex, and of the seasons, and pointed out the differences in the symptoms and course of the disease as it occurs in young infants and in children of a more advanced age. Tuberculosis of the meninges may occur, he said, without producing meningitis, and in such cases there are no symptoms by which the condition can be recognised. The paper was illustrated with a number of charts.

Professor Prévost then read a communication from Professor d'Espine (Geneva), who was absent, on a rapidly curable form of infantile spinal paralysis. At the conclusion of this paper addresses were made to the Section by the presidents, Professor Rauchfuss (St. Petersburg), in French; Professor Jacobi (New York), in English; and Professor Hirschsprung (Copenhagen), in German.

Section of Military Medicine.

On the Use of Antiseptics in War.

Professor Esmarch (Kiel) opened an important discussion on this subject with a paper, the full title of which was: "Antiseptics in war, considered generally and especially in regard to the use of efficient and simple dressings, which, on account of their small bulk, are most suitable for field practice." In the course of his remarks he laid down the following propositions: (1) We are bound in humanity, in war as well as peace, to give the wounded the protection and the benefit of antiseptic treatment. (2) In order to satisfy this obligation (*a*) all military surgeons should be thoroughly familiar with the principles of the antiseptic treatment, and practised in its employment; (*b*) their subordinates, hospital attendants, and bearers should be instructed in the principles of antiseptics and versed in their application; (*c*) field hospitals, permanent hospitals, field-waggons, bandage-cases, and the pockets of hospital attendants should be sufficiently supplied with antiseptic bandages; (*d*) In war, every soldier should carry a bandage, to be used in case of necessity as a provisional antiseptic dressing. (3) All dressing material should be packed so as to take up as little space as possible, and the bandages of different sizes should be so arranged that they can be got at without loss of time. (4) Hitherto, corrosive sublimate has proved the most efficient antiseptic, and it is therefore the best substance to use to impregnate the dressings. (5) The best material for dressings is gauze (Verbandmull) which may be used both for compresses and bandages. (6) The best complete dressing will therefore be a gauze bandage impregnated with a sublimate solution (1 per 1,000), the volume of which may be considerably lessened by compression. (7) Of this sublimated gauze, pieces of varying length and breadth may be prepared so as to be adapted for every kind of wound. (8) To disinfect the hands and instruments, a solution of carbolic acid is indispensable. It must be taken on to the field in measured quantities. Carbolic spray, protective silk, and macintosh may be dispensed with in field practice. A substitute for the last-named may be eventually found in varnished paper. (9) Sublimate must form a part of the equipment in order that the various dressing materials (gauze, cotton-wool, lint, moss, sawdust, &c.) may be impregnated

with it, and the dressers, &c., must be instructed in the methods of using it. (10) Iodoform is only applicable to certain varieties of wound, and in antiseptic power is not to be compared with sublimate. (11) Instead of sponges, which could not be used at the dressing stations, sublimated wool should be employed and destroyed after use. (12) Where strict antiseptic treatment is not possible, as *e.g.*, at the dressing stations, no wounds except those attended with dangerous hæmorrhage should be examined by fingers or instruments which have not been rendered aseptic. (13) Extraction of bullets should not be undertaken without antiseptic precautions. (14) Hence at the dressing stations all that is to be undertaken is—(*a*) to apply provisional dressing, *i.e.*, to freely cover fresh wounds with antiseptic material; (*b*) to give support to wounded parts; (*c*) to transport the wounded as quickly as possible to a place where they can be dressed antiseptically. (15) At the field hospital, only those provisional dressings are to be examined in which it is absolutely necessary (fever, pain, hæmorrhage, soaking through of secretion from the wound). (16) Each examination is to be conducted with strict antiseptic precautions, the wound being properly opened up, drained, disinfected (chloride of zinc, sublimate, iodoform) and finally covered with an antiseptic bandage. (17) All that the bearers have to do is to carry the wounded as carefully as possible to the nearest dressing station. (18) The dressings which the soldier carries with him are only to be used in cases where surgical aid is not at hand or where the supply of dressings falls short. These soldiers' dressings consist at present of two sublimate compresses, one sublimate bandage with safety pin, a three-cornered handkerchief, the whole enclosed in a piece of waterproof.

Professor Neudörfer (Vienna), in a paper on the same subject, said that antiseptic treatment was especially important in war. Wounds were infected by the hands of the surgeon or dresser and never by the projectile. There was therefore on the field of battle no need to trouble about slight wounds, and wounds of the upper extremity. All the severely wounded should be removed to the dressing station as quickly as possible. There was no need to hurry about putting on the dressings, as the oxygen of the air had no unfavourable effect on the secretions of the wound. Salicylic acid in powder should be the first application to the wound. In gunshot fractures extension only need be applied.

Sir Wm. MacCormac agreed with Professor Esmarch's propositions. As the conditions were not the same in the field as in hospital, the first principle of treatment ought to be *not to injure*. A strict organisation of the medical staff and of the field hospitals was indispensable. For dressing material he recommended cotton-wool impregnated with sublimate, salicylic acid, or iodoform. He also recommended that the wounded should be removed as speedily as possible to the hospital, where they could receive strict antiseptic dressing.

Dr. Michaelis (Innsbruck) thought that the question whether the soldier should carry a dressing in his knapsack need not be discussed, as it had already been settled in practice in the affirmative. As a rule those wounded early in an engagement were well cared for, but there was always a lack of surgeons at the point where the decisive struggle took place. It was therefore necessary to remove the wounded to the dressing stations as quickly as possible.

Professor Mosetig v. Moorhof (Vienna) contended that the application of a provisional dressing in the field only caused loss of time. If a wound could not be thoroughly dressed, it had better remain undressed. He did not recommend that the combatants should carry dressings, for a large quantity of such got lost, besides which the wounded man could not dress himself, and his comrade might not do it. It would be much better to furnish the medical staff with a sufficiency of the dressings. Amongst antiseptic substances, powders could only be used for a first dressing, solutions being unattainable for want of water, and as, of the dry substances boracic acid was too weak, and salicylic acid too irritating, there only remained iodoform, which acted as an antiseptic in minute quantities, did not ball together like salicylic acid, and did not necessitate a covering bandage. He recommended iodoform most strongly. Unfortunately its odour was not to be removed or covered, but considering the other prominent advantages of the substance, this defect must be disregarded.

Dr. Lommer (Magdeburg) said that in Prussia the question of antiseptic or no antiseptic was no longer debated, a decision having been long since arrived at in favour of antiseptics. In the first line strict antiseptic treatment was very difficult from want of dressing materials and insufficiency of medical staff; he therefore recommended the use of iodoform-charpie. In the field and other hospitals sublimate could alone be used, partly because only small quantities of it were required, and partly because it was necessary, on account of the formation of the army, that a single antiseptic should be used throughout. He fully agreed with previous speakers that it was necessary in time of peace to train the subordinates of the medical staff in the use of simple antiseptic dressings.

The discussion closed with remarks from Dr. Ziegel (Stettin).

GENERAL MEDICAL COUNCIL.

Thirty-seventh Session.

First Day—Tuesday, October 7th, 1884.

President's Address.

The President on taking the chair delivered the following address:—In conformity with the instructions of the Council, I have summoned the present meeting at the first convenient day after the Long Vacation. The Council will remember that the second period of five years, for which they had elected the present President, ended on July 18, but that, since it might be undesirable to meet at that particular date, in view of the Medical Bill then before Parliament, it was agreed that I should continue in office in order that I might call the Council together at the time most suitable either for the winding-up of its arrangements under the Act of 1858, or for the further discharge of its responsible duties under that Act. This accordingly has been now done for the latter purpose. The Bill, on which so much labour and care has been expended, was withdrawn by the Prime Minister at the close of the Session, after it had passed the House of Lords, but not before 185 amendments, in 13 folio pages of more or less importance, some being in duplicate and triplicate, had been put on the notice paper of the House of Commons. The Council, therefore, meets now, without delay, both for the election of a President, and for the grave purpose of considering the situation in which the medical education of Great Britain and of the colonies is once more placed by causes in large measure unconnected with it. It is not my intention, under these circumstances, to make any elaborate address before retiring from the high office in which you have twice been pleased to place me. It would not, indeed, be strictly in order to do so, even if it were expedient. But I crave your indulgence while I say a very few words on the position in which, as the guardian of medical education in this country, the Council seems now to be placed. Government Bills, conferring fresh powers and imposing new duties on the Council, and this year reconstituting the Council, and assigning new and important functions to medical boards, have been four times passed through the House of Lords in the last twelve years, and have been four times withdrawn by the Government in the House of Commons without full discussion in that House. Into the causes of this abiding misfortune I will not enter, but I ask your leave to record that this failure has not been dependent on the action of the Medical Council. It is true that the work of the Council has been affected by an unusual, perhaps unprecedented, state of things. It has been hampered in its action, both from without and from within, by the sense that the powers and duties assigned by the Act of 1858 might shortly be modified or transferred. The

Council, though anxious to act to the full extent of its powers, was aware that its recommendations and its conclusions were, pending the new legislation, of late years made at a disadvantage. It cannot fail to be asked, What then is now the duty of the Council? Is it to wait for further attempts at legislation? or is it to continue to develop the work which lies before it, and, with the varied experiences it possesses, to act as though no legislation and no change were impending? It would ill become me to-day to attempt to answer these grave questions. The Council will give its own reply by its actions. But I venture to hazard the statement, that three short clauses, to which no serious person could object, would, if passed into law, shortly relieve the teachers and students of modern medicine in this country of almost all their present educational uncertainties:

The *first*, directing the Council not to admit to the *Register*, after a given date, any person who had not passed examinations, satisfactory to the Council, in Medicine, Surgery, and Midwifery.

The *second*, empowering the Council to appoint, in such manner as it deemed expedient, one or more Assessors to every Examining Board, whatever be their number now or hereafter.

The *third*, making it clear that the Council can, under Clauses 18, 19, and 20 of the Medical Act, enquire into the modes of teaching by the schools, as well as into those of examining by the Licensing Bodies.

But I might go further and say that, at the present crisis, it probably is in the power of the existing Licensing Bodies and Schools, by a combined effort, to give practical effect to these several propositions without legislation, and to secure thereby peace to themselves, and in great measure to obtain more completely the confidence of the public at large. I trust that I have not in these few words transgressed the bounds which you would wish me, at the close of ten years as your President, to set to these remarks. I do not presume to forecast the future. Of the past I know that the work which I have had the honour of sharing with you at this table for twenty-six years since the establishment of the Council has been work of the deepest interest, and often of great difficulty. During the last ten years it has been such as to produce in me sentiments of profound gratitude and to give confidence that the Council, as the guardian of Medical Education in Great Britain, will deal with the present crisis alike in the spirit of patriotism and in the temper of scientific progress on which modern medicine so largely depends. Whatever may be the case elsewhere, there is no question that within the walls of this Council there can be now only one aim, viz., how to unite in using and regulating, for educational purposes, and in the best attainable way, the many forces which bear on the study of all problems connected with the prevention and treatment of disease, both personal and national. These are forces which are ever moulding anew the character of the true student for the common good of mankind. They ever need for their study and their guidance fresh thought, and new exertion. I now leave the chair, in which you have twice done me the high honour of placing me, that you may discharge the duty under the Act of electing a President.

The PRESIDENT having vacated the chair and left the room, Sir HENRY PITMAN, Chairman of the Business Committee, took the chair. Mr. MARSHALL proposed and Dr. HUMPHRY seconded, that the President's address be entered upon the minutes. This having been agreed to, the strangers were ordered to retire, in order that the Council might choose their new President in private.

Election of President.

At the expiry of about half-an-hour they were re-admitted, and learnt that Sir Henry Acland had been re-elected for five years. The following were elected members of the Business Committee, viz., Sir Henry Pitman, Dr. Haldane, and Dr. Aquilla Smith.

Returns from the Army and Naval Medical Departments.

The returns from the Director-General of the Army and the Director-General of the Navy were next acknowledged, a good deal of time being taken up by various criticisms.

The Rev. Dr. HAUGHTON pointed out some errors in the order of precedence, which he thought of some importance, and it was decided that Mr. Miller should rectify this.

Dr. AQUILLA SMITH drew attention to the fact, that the Director-General of the Army did not append any remarks to his table, and that the remarks on the other table were not sufficiently full. He did not, however, wish to propose any formal resolution with regard to this matter.

Mr. TEALE rose to draw attention to one fact in connection with these lists, and it was with reference to the numbers who passed as compared with those who were qualified, but for whom there was no room. He noticed that of the English candidates a large proportion were successful, but that only a very small proportion of the Irish were: thus, out of twelve candidates from an examining body, only one was successful, the other eleven being reported as qualified; and in another instance, one out of ten was successful, the other nine likewise being reported qualified. He thought that the matter was sufficiently remarkable to be worth drawing attention to.

Mr. MACNAMARA, with some vigour, gave as the reason for this failure of the Irish candidates, that they were not sufficiently up in what he was pleased to call the "straight tips" of the examinations; and he was now advising his pupils to come over to London before going up for these examinations, in order that they might make themselves familiar with these tips from the best coaches.

Mr. MARSHALL referred to the fact, that these 44 candidates possessed between them 89 licences, and he thought it would be interesting if they knew which men had failed.

After some remarks from Dr. HERON WATSON, the motion to receive the reports was carried.

Prof. STRUTHERS then moved a resolution, that they should ask for a similar return from the Indian Department of the men who entered the Indian Medical Service. This was agreed to, as likewise a proposal of the Rev. Dr. HAUGHTON'S, that they should apply to Netley and Haslar for a similar return of the final results.

This, having been seconded by Dr. BANKS, was also agreed to.

Results of Preliminary Examinations.

Sir HENRY PITMAN then moved that a communication from the College of Preceptors should be received, referring to the results of the preliminary examination, from which it appeared that out of the total number of candidates more than half had failed to pass the examination; a result which he regarded as at once important and disheartening.

Dr. STORRAR, in seconding the motion, said that his impression was that the fault lay entirely with the candidates. He said that there was a great tendency, at the present day, for young men to go up for an examination and take their chance of passing. Formerly to be rejected at an examination was regarded as of the nature of a disgrace, but that opinion did not seem to prevail now, and candidates came up again and again for examinations, without being in the least prepared for them.

The Rev. Dr. HAUGHTON said that, as an honorary fellow of the College of Preceptors, he ought not to stand up to praise them, but he wished to add his testimony to the way in which that body did their work, and he was convinced that the cause of the large percentage of failures was that the candidates were totally ignorant of what was expected from them. He did not consider a large percentage of rejections as any test of the examination being a good one; in fact, he thought that the reverse was the case. He noticed with much regret that only four candidates were described as having passed in mechanics. It was to be assumed that no more had gone in for the examination, but it was to be regretted that such a poor return should be obtained after all the stress they had laid upon mechanics as a subject of preliminary education.

The motion was carried.

Sir HENRY PITMAN then moved a resolution that the other bodies mentioned in the Medical Act as conducting an examination in preliminary education be requested to furnish the Council with a return as to the number of those who had passed, and the subjects of examination. He said

that there were no fewer than 56 bodies whose examinations were recognised, and the College of Preceptors was the only one who sent in any return. He thought that it might be found that some of the bodies had not so high a proportion of rejections, though as the subjects of examination were the same, the results ought not to be very different. He did not know whether any useful information would be gained by such a return, but he thought that there would certainly be some information of interest to be got out of it.

Mr. MARSHALL seconded the motion.

Mr. MACNAMARA thought that the idea was a very useful one, and he was in a position to furnish the Council at once with the results at his own corporation, the College of Surgeons in Ireland.

Dr. AQUILLA SMITH suggested, that all whose examinations were recognised should be asked for a return.

The Rev. Dr. HAUGHTON said that they ought to ask for the papers that were set, as well as for the standard adopted in the examination, which would be found much better guides than a mere list of the numbers rejected. The scheme as at present proposed was impossible, as in Dublin, at any rate, the University had no means of knowing who amongst the candidates were medical students, as distinct from law or the church. He thought that possibly the University might be willing to institute a separate examination, but he was not in a position to state anything positively on their behalf.

The PRESIDENT pointed out that some of the speakers had dealt with a wider question than was included in the motion before them; he noticed that there were two resolutions which proposed to deal with the whole subject of preliminary education, and he suggested that the further discussion on this matter should be postponed until those resolutions were under consideration. The motion was then by leave withdrawn.

Certificates of Moral Character.

Mr. MACNAMARA then brought forward a motion to the effect that students before being registered must produce a certificate of good moral character, signed by a clergyman, a magistrate, or a medical practitioner. He said that this was the rule in the case of the Irish bar, and he thought it ought to be adopted for medical students. He had excluded the schoolmasters from the list of those whose certificates they would accept, as he had learnt that their certificates were worthless. His scheme was not perfect he knew, but nothing was perfect, and it was the best that had suggested itself to his mind. This proposal it was in the power of the Council to enforce if they chose to do so. His next resolution, making the same proposal with regard to students up for their final examination, they could not enforce; they could only recommend it to the various examining bodies, and therefore he had kept it separate. The College of Physicians of Ireland already required a certificate of good moral character from candidates for the diploma, and he hoped that before long the College of Surgeons in Ireland would do the same. The matter had been brought under his notice by the case of a student who had passed half of his final examination, and had just been convicted for stealing, and there was no power by which, so far as he (Mr. Macnamara) knew, this young man could be prevented from receiving his diploma on moral grounds. Had he already been a qualified practitioner, they could have very easily dealt with him.

Dr. BANKS spoke of the way in which this scheme had been found to be perfectly satisfactory at the College of Physicians in Ireland, and he would be happy to second Mr. Macnamara's motion, subject to certain alterations. He had no opinion of clergymen, and would not place any reliance upon their certificates or upon those of magistrates, and if Mr. Macnamara would substitute for them the words "two registered practitioners," he would support his motion.

The Rev. Dr. HAUGHTON could not allow such a statement to pass; they ought not to offer such an insult to the clergy as to decline to receive their certificates. For his own part he was not afraid to say that the lowest in the ranks of the clergy were far higher than the lowest in the ranks of the medical profession.

Dr. QUAIN suggested that the certificate should be issued in more general terms, to the effect that a candidate shall produce a certificate of good moral character which shall be satisfactory to the Registrar. Subsequently, at the suggestion of Mr. Simon, the words were added, "under the direction of the Branch Council."

Mr. SIMON said that a resolution such as this contained much that all would sympathise with, but it ought to be made very general. For his part he did not believe it could be of any use. What, he would ask, were the evidences of disqualifying immoralities? Every man was assumed to be of good moral character until the contrary was shown. They would not be able to get hold of anything but what the criminal law took notice of. A man might be required to make a declaration, and then if this was afterwards found out to be untrue, he could be prosecuted for making a false declaration. Whilst entirely sympathising with the object with which this resolution had been brought forward, he would strongly object to adding anything more to the "dreadful certificate system" as he called it. Under cover of certificates an immense quantity of false statements were made, and this would be an utterly unnecessary certificate.

Dr. LYONS said, that whilst fully sympathising with the intention of the proposer of this resolution, he could not but feel that the subject was very complicated and full of difficulties. It had worked well at the College of Physicians as he knew from personal experience, but there the numbers were very small, and every man was personally known to the Fellows. He referred to the great injustice that might be done by refusing a certificate, and instanced a riot that had taken place some years previously in Dublin, when a theatre had been wrecked, on which occasion two of the most prominent rioters were students, one of whom afterwards became a bishop, and the other a judge. They were all accustomed to sign these certificates without knowing really very much about a man, and he did not think that this rule could be rigidly worked, and he doubted if it would be of much use if it were. He would suggest as an amendment that the certificates should be from two persons of character, one who had known the student at the commencement of his student career, and the other a person who had known him at the end. After some further remarks he moved that the resolution be referred to a small committee. This was seconded by Dr. PYLE.

Dr. AQUILLA SMITH did not see that they would be in a better position to decide on this question in a week's time than they were then. He thought the proposal was utterly impracticable and could not be worked, and it was quite open to doubt whether it would be useful or not. He entirely agreed with Mr. Simon.

PROFESSOR HUMPHRY said that it was most undesirable that the Council should pass a resolution likely to be inefficient. This one could not have any real effect. It would scarcely be possible to conceive of any ground on which such a certificate could be refused to any lad of the age in question. How, he asked, could a general practitioner possibly refuse to give such a certificate to the son of a patient? The certificate could not be of the least value.

Dr. MATTHEWS DUNCAN said he should support Mr. Macnamara. He thought that the fact that a certificate had to be obtained would exercise an influence amongst the students themselves. He was under the impression that formerly a certificate had been required by the College of Surgeons in Edinburgh. The only objection that had been raised was that the certificate would be worthless. All certificates might be said to be imperfect. In all the schools and colleges, a man was required to be of good moral character, or he was not allowed to remain there. Modern history and Euclid, he said, were all very well in their way, but it would be far better to test a man as to moral character than in these subjects.

Mr. MACNAMARA could not accept the amendment. He believed that the knowledge that he had to obtain a certificate would be an incentive to the student to abstain from bad practices. As to objections that had been raised, he thought that the Irish benchers would not retain it if they did not find that it worked well.

The amendment was then put and lost by an immense majority.

The original motion was then put and lost by a considerable majority.

Mr. Macnamara then, by leave, withdrew his motion relative to the certificate before the final examination.

Age as a Qualification for Practice.

Dr. Banks then proposed that the Council should recommend the licensing bodies not to confer a right to practise upon any man until he had attained the age of 23. He commenced by saying that the present regulation was frequently evaded. For most men there was not time for them to have received a good education by the time they had reached the age of 21. A man now became qualified just at the age when he ought to be commencing his professional studies. He quoted a list of the periods of study required upon the Continent, from which it appeared that, with the exception of Germany, all the countries required a longer period of studentship than our own. In Sweden, which required the longest of all, the profession stood upon a higher platform, so to speak, than elsewhere. It would be said that he would debar poor men from the profession; he did not think so, but poor parents should put their sons into a trade, and not into a profession. A very young man might be so situated that people had no choice but to employ him or do without a doctor. This did not apply to the bar, for people were never obliged to employ a junior counsel. Billroth had expressed himself very strongly in favour of raising the age to 25.

Dr. Aquilla Smith seconded the motion.

The Rev. Dr. Haughton supported the motion. He thought that at present the limit was too young, considering the grave responsibilities and delicate position in which a medical man often found himself, and he referred to the Hippocratic oath to show the nature of those responsibilities. The lowest age in the Church was 23. He thought that very little injustice would be done, especially as the public services were open to candidates up to the age of 27. The length of the curriculum would have to be taken into consideration. This resolution would facilitate the giving of more time to the preliminary subjects.

Mr. Simon said that the analogy of the custom in the different churches was a false one. There one had to do simply with the spiritual welfare of those entrusted to the man, here it was a question of a man's earning his livelihood. The meaning of 21 was that that was the age at which legal responsibilities could be undertaken. Whether the man knew his business was for the examiners to decide. He quite agreed that it was doubtful whether the amount required could be done in the time. It was the curriculum that should be extended rather; if a man could pass the preliminary examination it mattered not what his age was. Possibly, an average man would not pass until he was 22. Further than that they could not go; there might be many men competent at the age of 21 and it would be a great injustice to prevent a man from earning his bread if competent.

Dr. Lyons said that this proposal should not be allowed to affect those who had already commenced their studies. The question carried with it various financial considerations for the parents and guardians. He suggested a four years' limit of notice, and thought that 1888 might be named as the date when the scheme should come into operation. It involved another very important consideration, viz., that a large number of men would entertain the idea of an Arts degree first, but it would nearly double the cost of education. He thought that the proposal would lead to a higher education, and raise the social status of the profession.

Dr. Matthews Duncan would have supported the proposal cordially if it had been a recommendation, but it was compulsory, and though he sympathised with the spirit of it, he could not agree to so sweeping a change. They ought to have the deliberate opinions of the licensing bodies upon it. At present none of them required more than 21 years of age, and the Council ought to wait for some expression from them.

Professor Struthers said that this question was one of the greatest importance. He would be quite prepared to support the resolution if 22 was fixed instead of 23. In no country, he said, was the curriculum longer than four years, and Dr. Banks had included the preliminary education in his statistics. He would suggest that a return be obtained from the various licensing bodies. If the age were 22, the lads would either spend a year longer at school or they would go out as assistants for a year at the end of their student period, which would be of great advantage to them.

At this point the discussion was adjourned until the next day.

Dr. Quain asked for an expression of opinion from the members as to the effect of the changes that they had endeavoured to introduce into the ventilation of the Council room, and Dr. Fergus said he thought that the room had been very much improved; they had got rid of the dry rot which formerly had been so objectionable.

Second Day.—Wednesday, October 8th.

A Question of Title.

The minutes of the previous meeting having been read, Mr. Macnamara rose to object to their being confirmed, on the ground that he was incorrectly described, in that, being a professor, he was called "Mr." throughout; and he moved an amendment, substituting the prefix "Professor" to his name wherever it occurred in the minutes, instead of "Mr." He said that he had written to the secretary on the subject, and had received a reply to which he felt bound to take exception, on account of the use in it of an expression about persons "who adopt the title of Professor." He was a Professor of Materia Medica in the Royal College of Surgeons of Ireland, which had a royal charter, and he read extracts from the charter to prove that his office was designated a professorship.

The President said that this was part of a general question, which had hitherto been always left to the discretion of the Chairman of Business, and he regretted that it should be brought before the Council.

The Rev. Dr. Haughton seconded the motion, and he did so because he had had on a former occasion to make a somewhat similar application on his own behalf.

Sir Henry Pitman claimed the right to say a few words, as his discretion had been somewhat called in question in the matter. The secretary had referred Professor Macnamara's original letter to him, and he, supposing it to be some recently acquired title, had directed the answer to be sent of which the speaker had complained. Professor Macnamara had been for ten years a member of that Council, and had never before claimed this title, and he gave no sort of reason in his letter, and it was therefore only natural to suppose that it had only recently been obtained. As a matter of fact, there was no precedent on the point, for the prefix of Professor had never been used in their minutes since the foundation of the Council. If Professor Macnamara was really serious in the request he was making, the whole question would have to be gone into, and he ultimately drafted an amendment, proposing to refer the matter to a committee.

Dr. Matthews Duncan seconded the amendment.

Dr. Lyons asked under what Act of Parliament the royal charter of the College of Surgeons in Ireland had been confirmed, as until it had been so confirmed none of its provisions were valid. He regretted that this question had been brought up at all, but as it had, he did not think it could be shelved, and he would therefore approve of its being referred to a committee.

Mr. Macnamara would not submit to a committee; he had a right to the title of Professor, and he would not permit a committee to question that right. It was nothnig to him that others had a right to the title but did not claim it.

Dr. Lyons rose again to correct an assertion of Mr. Macnamara's. The Medical Act did not in any way convey the power by implication that Mr. Macnamara wished to make out that it did, and there was nothing in that Act which could be taken as confirming the legality of the charter in question.

Mr. Simon regretted exceedingly that this question should ever have been brought up, and he suggested that the motion should now be withdrawn, and that the President

should be requested to decide on the point, and that Mr. Macnamara should abide by his decision. At the same time he reminded Mr. Macnamara that in the original document, announcing his election to the Council, he had not been described as Professor.

This course having been agreed to, the minutes were confirmed.

Order of Business.

The PRESIDENT then asked the permission of the Council to make a short statement. He had been unable to say anything on the previous day, as any remarks from him at such a time would have been most unsuitable; but since then he had considered what would probably be the best course of business to adopt, and he had a few suggestions to offer. The work they had before them he described as complicated and tangled. They had to consider whether they should wait for further legislation and fresh powers, or whether they should go on attempting to do what they were originally appointed to do, but what for the last ten years they had found increasingly difficult. For more than ten years Parliament had been endeavouring to remedy the present state of affairs and had failed. But their powers remained intact, and the Council was just as responsible now as in 1858. The great question was what could the Council do with its present powers in regard to general medical education throughout the country, and what could it not do? He would put on the minutes for the next day the following resolutions which he had drawn up with the aid of the Chairman of Business, and if the Council saw fit they would resolve themselves into a Committee of the whole Council, and proceed to discuss them, strangers being absent, as he thought that would conduce to shorten the speeches:—

"(*a*) That the Council consider in Committee what are the most important changes, if any, in respect to Medical Education and Examination, which should be made for efficiently carrying out the intention of the Medical Act (1858).

"(*b*) That the several changes, if any, be classed into (A) those which can be effected by the action of the Medical Council, the several Medical Bodies, and the recognised Medical Schools; and (B) those, if any, which may require, for carrying them into effect, an alteration of the law.

"(*c*) That the Council suggests to the Representatives of the several Licensing Bodies here specified to use all due effort to obtain the consent of their respective Institutions to such *Resolutions* on the aforesaid subjects as are agreed to by the Council at its present meeting, with a view of immediately carrying out those which can be effected without alteration of the law, and for their observations on the importance and desirability of those which cannot."

After some remarks from Dr. QUAIN about the Divisional Boards, the Rev. Dr. HAUGHTON asked if he would be in time to bring forward other resolutions besides those he had already given notice of, and was assured that he would have plenty of time.

Dr. LYONS asked if it was intended to sweep away all the motions at present on the paper.

Dr. HUMPHRY did not see how any consultation about what they ought to do could help matters, and he said it with the utmost respect. Their powers were most clearly defined in the Medical Act, and it seemed to him that legislation having failed, they ought to go on without reference to any future legislation. A discussion could be of no real use, but if they used their powers they might do a vast amount of good.

Mr. MACNAMARA thought that the President's proposal would simplify matters very much.

The PRESIDENT said that he had not often had occasion to make a statement of that kind, and he was very sorry that he should have alarmed Dr. Humphry, but he had really suggested nothing new, his proposals had related only to the order of business. The practical object that he had in view, would, he thought, bring forward every motion that had been put on the paper. The motion would appear on the minutes in the morning.

The discussion on Dr. Banks' motion was then resumed.

Dr. HALDANE thought that it would be very unfair if a man was able to pass his examination at the age of 21, to prevent him from doing so on the score of his youth. It was a conventional age at which a man assumed all his ordinary responsibilities. In this respect he saw no reason why medicine should differ from almost every other body. He agreed with Mr. Simon that the question was one for the examiners. As to the higher qualifications, it did not apply in the Universities; a man always took an Arts degree first, and the question of his age need not be considered, he would be sure to be much over 21. In most instances men were 22 or 23 before becoming qualified, but there were exceptions. On the subject of poor men entering the profession, he altogether objected to the idea of preventing them. Many of the most brilliant men the profession had produced had commenced as very poor students. Also the need of men to practice in poor districts must not be forgotten. It had been said that the proposed alteration would promote diligence; he believed it would have just an opposite effect. The tendency on the part of all students was to postpone work. To delay the age at which he could enter the profession would simply give the student so much more time to waste.

Mr. MARSHALL said that this subject had often been discussed at the College of Surgeons, and that he was very anxious to prolong the period of the curriculum, but not by altering the limit of age. At his own college he had found that two-fifths did not pass until they were 22 years old. Most of them obtained a medical qualification first. Except as a means of prolonging the curriculum he did not approve of this motion.

Dr. STORRAR said that there were many practical difficulties in the way of the present proposal. They must remember that they had to meet the wants of the public in this matter. There were it might be said three classes amongst the public. (1) Those who were rich enough to retain distinguished men whenever they wanted medical advice. (2) Those who were moderately rich, and were content with a rough and ready, or rather he would say with a ready practitioner, who knew his work well, and who knew when to call in the advice of a consultant. (3) Those who could not afford to pay anything like so much, and they formed a very large class. They must remember that men practising in the lower parts of London, and in many of the large towns, had to do a great deal of work for very little return; there were many men who could never reach an income of 400*l.* a year. Their patients could not afford to pay for an expensively educated man. At the University of London he would be a very remarkable man who could obtain his degree by the age of 21. He instanced the case of a young man who went up to Edinburgh and obtained his licence to practise at the age of 21, and who then took an appointment where he saved a little money and was now reading up for his degree at the University of London. If the present proposal had been in force this man would not have been able to do this, for he would not have been able to support himself during those two years. If the age was extended the career would become more expensive; they would therefore charge the patients more, and these would, in consequence, fall into the hands of unlicensed practitioners. In spite of all ambition to raise the status of the profession they must recognise that in a matter of this kind the public would have its own way. Fifty years ago the College of Surgeons had 22 as the limit, and they had lowered it, doubtless for some very good reason, though he did not know what it was. Prior to 1815 the College of Physicians had been requested to give a licence to practise, but they had always refused, he supposed because they wanted none but highly educated men to practise the healing art. The Apothecaries' Society had started a qualification to practise in consequence of this refusal, and he thought that the country was under a debt of gratitude to that society for their action between 1815 and the passing of the Medical Act in 1858. If they raised the standard above a practicable point the men would be above the means of the public, who would then pass into the hands of the unlicensed practitioners. He thought there always must be, so to speak, a staff corps in the profession and a commonalty.

Dr. SCOTT ORR said that the question was really one of lengthening the curriculum, rather than of altering a fixed age. Practically the age was already extended for the low

class men who could not get through in the time, and for the high class men who liked to devote more time to their work, but it was the middle class men who wanted to be restrained. He quite approved of the idea of fixing 22 years as the age.

Dr. HUMPHRY did not think it would be wise to limit the minimum age. It would tell most injuriously on the most intelligent and ablest students. He had had a large experience, and the younger students were often the best prepared. It had been said that this scheme would improve the status of the profession; it seemed to him that it would have the opposite effect. Supposing that a man had two sons, the one sharp and industrious, the other dull and idle, which would he be likely to send into a profession where he would not be able to earn his own living till the age of 23? There could be very little doubt that it would not be the one who was intelligent and industrious; he would look to his making something by the time he was 21. The proposal would be, he believed, prejudicial, and it would be much better he thought that it should be left to the various licensing bodies to take the initiative.

Dr. BANKS said in reply to the various speakers that he had not contemplated that this scheme should come into operation at once. As regarded France he admitted that he had overlooked the fact that the first two years of the six were spent in non-professional study, but the figures he had given in regard to the other countries he would guarantee the accuracy of, as they were taken from Billroth's work on the subject. Many of these countries were poorer than Ireland or Scotland. He knew that ignorant boys got into the profession, on his plan they would have time to learn. His motion might be regarded as piloting the way for the extension of the curriculum. The Universities did not come into his contemplation at all. He said that he had not overlooked the wants of the rank and file. His object had been in a great measure obtained by the discussion that had taken place. The full question of the curriculum would perhaps come up later. He was quite willing to accept 22 instead of 23.

Mr. SIMON objected most decidedly to the proposal. He was against the principle of an age test at all, but was a strong believer in the principle of an examination test. He thought that the curriculum was unduly short, and he thought that this question was of much less importance than the much larger question of the curriculum and the arrangements of the curriculum, which he suggested should be postponed for consideration at the next session of Council, and that in the meantime the various representatives could confer with the licensing bodies and obtain their feeling on the matter.

The question was then put that the age be altered from 23 to 22 in the resolution and lost by 9 to 11. The original motion was then put and lost by a large majority.

The English Conjoint Scheme.

Sir HENRY PITMAN then brought forward his motion that the Council should sanction the scheme of the Royal College of Physicians of London and the Royal College of Surgeons of England to co-operate under the direction of the Council. The scheme had, he said, been printed upon last year's minutes, and the present one was identical with that in every essential detail. The words in the notice, "under the direction of the Council," had been inserted because they appeared in the resolution with regard to the Scottish conjoint scheme which had been passed at their last session. He could not conceive of any reason why the Council should refuse its sanction to the scheme, seeing that 14 years previously they had expressed the opinion that the bodies should co-operate. The Council had it in its power to grant the sanction at once, and he could see no reasonable objection to it on the part of the Council. As to whether it was in the interests of the bodies themselves was a matter that did not concern the Council. Similar proposals were, he understood, being considered in Ireland. He would press for a settlement of this question at once. Last year the matter had been postponed because the duration of the time of notice of a former scheme had not expired, that reason however no longer existed.

Mr. MARSHALL seconded the motion, and said that he would refer somewhat to detail, not that the Council had any right to object to a scheme on the ground of detail. Last year no discussion had taken place on the details of Scottish scheme. He believed that the details would prove interesting. There was nothing that would interfere with any future bill. Their scheme did not profess to cover the whole ground of medical reform, or the whole ground covered by the conjoint scheme. That had failed, and had not been revived; their scheme was both realisable and viable. There was perfect harmony between the two colleges, who were prepared at once to act upon it. As regarded the curriculum, it was founded upon the lines of the conjoint scheme, and on that of the two colleges. It was an advantage to the student that he should only have one course of study to obtain a double qualification to practise. Both in the matter of simplification and consolidation it was an improvement upon the present state of affairs. They had also improved on the old conjoint scheme, students would have fewer lectures to attend, and there would be three examinations instead of two, as at present at the College of Surgeons. He believed that students liked a first examination. Then, a student would not be required to take up all the subjects at once, but might take them up in three parts for his final, and might divide them in the other examinations. This would prolong the period which the student gave to his studies, without making any special alteration or regulation as to age. All their changes tended to relieve the student from personal anxiety, and make him less distrustful of himself. As to the value of the licence of the College of Physicians, he granted that it was complete in itself, but he had some figures to give, which he thought would be interesting. Out of the first 2,450 names on the register, 153 held the licence of the College of Physicians. Of these, only six were contented with it; two of these, however, were Canadians, and might have diplomas there as well, the other four were comparatively young men, who very likely intended to take some surgical qualification. Out of the remaining 147, two held the licence of the Society of Apothecaries, all the rest had some surgical qualification, 139 the M.R.C.S. These facts were most satisfactory, and showed that the scheme was both desirable and practical, and it did not infringe on any existing lines or tendencies. As to the question of fees, they would remain the same as at present, 21 guineas to the College of Surgeons, and fifteen guineas to the College of Physicians. They might have raised them but he thought that that was out of the question. If they had lowered them they would have been accused of bidding for candidates, and of coming into competition with other licensing bodies. It would moreover, he pointed out, be an injustice to the already existing licentiates. Under the new scheme, if twenty-four candidates presented themselves for examination, and all passed the whole series of examinations, the cost would be greater than it was under the existing *régime*, chiefly owing to the first additional examination. But the numbers would gradually diminish, so that there would be fewer to be examined at the final examination, and consequently fewer fees would have to be paid to examiners. As to what their funds might be in the future they would not speculate, they must not count their chickens; at present they had not the funds which would justify them in reducing the fees, but if at any future time they should be in a better financial position, they could always re-open the question of fees.

Dr. QUAIN said that this scheme had originated with the College of Physicians. The only effect of it would be to create a new examining board, as each college could, as before, grant its diplomas to anyone who had obtained the other qualification elsewhere. The Scottish question was totally different, as the Board of Management was differently constituted. The Scottish bodies had combined; the present proposal was for co-operation, not combination. Each college would appoint their own examiners, and each would pay their own men; there would be no common fund. The Scotch had previously to their scheme no Board that could give a complete examination, but this was not true of England. The present favourable position of the College of Physicians was entirely owing to the exertions of the late Dr. Todd and himself. They had decided to do away with the Extra-Licentiates and institute the new order of Licentiates, and in spite of much opposi-

tion they had succeeded. He reminded the Council that the word Physic, as used in Henry VIII's charter, included Surgery. Why should they give up the single Examining Board they had now got? The College of Physicians had only assented to the scheme under the belief that they were going to form a grand national board, and had not intended to assent to such an arrangement as that now proposed. He said that 93 per cent. of their Licentiates also took the M.R.C.S., but what was more remarkable was that 30 per cent. took the L.S.A. in addition. Why should men be compelled to go to the College of Surgeons? He could see no reason for it. If they sanctioned a partial or incomplete board it would be a great mistake, and he concluded by moving an amendment to the effect that while they approved of the College of Surgeons undertaking not to give their diploma to anyone not fully qualified, they could not sanction an arrangement by which the College of Physicians would become a partially qualifying body.

Dr. Pyle briefly seconded the amendment.

Mr. Macnamara rose to explain why he must have his say on this subject, though he had agreed to the Scotch scheme without making a speech. [The distinguished professor's memory is somewhat at fault here, for he certainly did take the opportunity of making some observations (not much to the point, we admit) when the Scottish scheme was brought forward last session.—Rep. *M.T.*] The reason for this was that the Scottish scheme took in all the corporations, whereas the present scheme did not, the Apothecaries' Society being left out. He thought that the mode in which the examinations were to be conducted, as detailed by Mr. Marshall, could not be improved upon. Dr. Quain had said that they were going to make a new scheme. [Here Dr. Quain interposed to disclaim having made any such assertion.] Referring to the Licence of the College of Physicians, he was surprised that the Local Government Board should have accepted it as complete; it would not be so regarded in Ireland, and was not accepted for the public services. If the Apothecaries' Society had been included he would have voted for sanctioning the present scheme.

Mr. Teale said that when he first read the present scheme, he did so with much disappointment. It fell short of the original conjoint scheme. The Council, however, ought not to refuse its sanction to it except for very strong reasons. His feelings had become modified towards the scheme since his first impressions. The step proposed in it was one in the right direction, it would help to determine the curriculum, both for the teachers and students. The system of three examinations, with fees payable for each, would virtually commit the student to go on with his examinations, as he would have already paid part of the expense of his diploma. The man who possessed this diploma would possess a very valuable qualification, the best that he could possibly have, and for his part he should certainly now support the scheme. It was a co-operation and not a combination, but this was partly owing to the nature of the two bodies. For the College of Surgeons the question of finances was a grave one. He was disappointed when he heard that the full double fee was to be charged, and he thought that it would be desirable if possible to reduce this. As regarded the first examination, it would depend upon how it was carried out whether it was a benefit or a burden. Were the students to be brought up from the country for it, or would the examination be conducted by examiners sent down to the different schools? This was a very serious matter. Another examination in London would entail serious additional expense to the student, and if the percentage of rejections was as large as in the later examinations the expense would be greater still. He also asked whether it would be possible that in all the examinations the paper work could be done at the schools and the candidate only come up to London for his *viva voce*. In this way a student would only have to stay a night in town instead of a week, and the expense would thus be considerably reduced. The examiners, too, by having fewer men to examine would be saved labour, for he would suppose that a man who was rejected for certain on his paper work would not be brought up to London for nothing. It would probably be said that the numbers rejected on the paper work alone were so small that it was not worth while to stop them from coming up for *viva voce*; he believed at present the proportion was about 5 per cent. He would suggest that the number might be largely increased with great advantage if the paper work were made a little more extensive. All the medical centres in the provinces were growing, and the question would be certain to arise in the future.

Mr. Simon said that the position of the College of Physicians differed somewhat from that represented by Dr. Quain. He had always had a doubt, and he had expressed it, as to their right to give a double qualification. Physic truly did include surgery, but for 300 years the College had taken no notice of it, and then asserted a right to give a qualification in surgery. It was quite true that the Act of Henry VIII. stated that the members were entitled to practise surgery, but that was a different thing from their giving a licence to practise surgery. Had the College of Physicians a legal right to refuse to examine a man who had not a registrable qualification? The point had come up before the College of Surgeons as to whether they could so refuse, and after conflicting legal advice in the matter, they had got a special Act of Parliament which empowered them so to refuse. If the College of Physicians had not got that power it seemed to him to be an insuperable difficulty in the way of the present scheme for co-operation.

At this point the Council adjourned.

Third Day.—Thursday, October 9th, 1884.

The English Conjoint Scheme (continued).

Mr. Collins could not vote for giving sanction to this scheme. A tripartite board and not a dual control was the real kind of reform that was requisite in the United Kingdom. What he hoped for was a conjoint scheme of education and examination by the three corporations in the United Kingdom. The universities had declined to take a part, and this he much regretted. In both England and Ireland it was the Apothecaries' Societies that were in the way. The Scottish corporations had arranged a satisfactory union, and he still hoped almost against hope that a tripartite union might be effected. Some thought that the Apothecaries' Societies were no longer required to take part in medical education and examination. The objection was not valid, but if it were, then it was equally valid in the case of the other corporations. The Society of Apothecaries of England could not be ignored. As Dr. Storrar had said, it had been very valuable in the past, and more than half the practitioners in England held its licence. This was a most important fact, and the Society could not be overlooked. Referring to the Apothecaries' Hall in Ireland, he admitted its connection with a drug establishment; and he submitted that that had proved a wise arrangement. As to its professional status and the opposition to it of the College of Physicians in Ireland, they must remember that that opposition was no new thing, it had been going on for the past thirty years. Their position had repeatedly been under the notice of the Legislature in Ireland, and their status and rights had always been maintained. More recently a decision, very much in their favour, had been obtained from Earl Kimberley and Sir Robert Peel. All this had largely increased and improved their professional status. He thought that it was high time now that all the bodies should come to some wise and harmonious resolution. The scheme before them on the whole was excellent in regard to the examinations, except that the first examination was incomplete, as intended for general practitioners. He regretted that the fees were not to be reduced, and thought that they ought to be made to approximate more to those of the Scottish bodies. It was desirable that the standard of fees should be made as uniform as possible throughout the Kingdom. The system of visitors would tend to equalize the examinations. He objected to the present scheme, because he believed it would hinder a larger and better scheme.

Dr. Matthews Duncan had doubted whether the College of Physicians had the power to refuse to give a licence to a man not possessing a surgical qualification, and had said they ought not to proceed until they had information on

this point, but when the Scottish scheme had been brought forward no such observations had been made, and the position was not different. [Dr. Quain here rose to a point of order, as the speaker was not confining himself to the amendment, but the president ruled that he might proceed.] It was not, he said, for the Council to find objection to a scheme of which they otherwise approved. As to the action of the College of Surgeons in obtaining an Act of Parliament, it had not decided the question at all; there was no doubt that now they could refuse to give the single qualification, but the original question as to their power to refuse or not before, was left unsettled.

Dr. STORRAR not being connected with either corporation, had decided to support the scheme. He did not dispute the merits of either body of Apothecaries, and had a scheme of tripartite union come forward he would have been prepared to consider it favourably. They had not made arrangements which included the Society of Apothecaries, but that would not justify the Council in refusing to sanction the scheme. That would be preposterous. Dr. Quain had opposed it vigorously, and had his arguments been addressed to the College of Physicians, they would have been entirely in place, but they were worth nothing in the Council Chamber. The object of the scheme was to put a stop to inconvenient competition; they did not want both to be giving a separate qualification. In Scotland the College of Surgeons had always given a qualification in Medicine, but that had not been in the way of an amalgamation. The Faculty of Physicians and Surgeons of Glasgow, a surgical body, had united with the College of Surgeons of Edinburgh. Mr. Simon's objection was one for the College of Physicians to deal with, not for them. He did not think it was very likely that a candidate would ever apply for a *mandamus* to compel the College to examine him. The University of London had been very willing to join in the conjoint scheme, but the co-operation of the Universities was not essential. There was no likelihood of another Medical Bill, and it was their duty to go forward; they could do all that was wanted. No young man in the future would be without a double qualification.

Dr. QUAIN asked Dr. Storrar to state why the University of London had obtained an Act of Parliament, and stated that it was because their charter did not permit them to refuse to examine a man for their degrees.

Dr. STORRAR replied that they had got the Act of Parliament because they had been requested to do so.

Sir HENRY PITMAN rose to speak to the amendment. He said that it asked them to declare a certain thing to be right in the case of the College of Surgeons and wrong in the case of the College of Physicians. Was that, he asked, equal justice, was it right in principle? He could not see how the scheme would make the licence of the College of Physicians a partial qualification, it could not alter the value of the licence, the power of which would remain the same. If they agreed to the amendment they would be stating what was untrue. As to the additional expense mentioned, that would be exactly the same, but this was no part of the business of the Council and no reason for withholding their sanction. The last reason—the inconvenience to the student, he characterised as childish. What was the inconvenience if the candidate had to go to the College of Surgeons to be examined in surgery instead of to Pall Mall; he was not required to do anything more than at present.

The Rev. Dr. HAUGHTON asked if the College of Physicians was under any pressure, if not, how could the Council object? The College would not abdicate any function, but merely asked a highly competent body to conduct a part of the examinations. He should vote against the amendment.

Dr. HERON WATSON considered that the scheme was within the lines of the Medical Act, and that the two bodies were perfectly within their rights. The Council had no right to refuse its sanction unless there was something behind the scenes; he could not think that there was so in this case. Dr. Quain's opposition was not supported by any petition from the College of Physicians, and nothing ought to be allowed to interrupt them in a plain duty.

Dr. STRUTHERS said he had taken part in the formation of the original conjoint scheme in Scotland. He thought that Dr. Quain was wrong, all his objections applied with more force to the original conjoint scheme, to which Dr. Quain had been so much attached. No new qualification was added, it was quite true that each retained its single qualification, the Scottish scheme did the same. A University man would only want to take the one or the other diploma. Each College should absolutely refuse to take a student for the one examination. There was one new thing in the scheme of which he approved, and that was the subdivision of the examinations, allowing a man to pass in one subject when rejected in another, or to take up one only.

Dr. HUMPHRY referred to one point in Dr. Quain's remarks indicating that there would be additional boards of examiners. The opposite would really be the case; there would be one board, and not two, and there would be a diminution in the number of examinations by three. A man who already possessed a qualification would be examined under the direction of this single board. He regarded the scheme as essentially and fundamentally good.

Dr. LYONS, after a historical retrospect, regretted that these two bodies had not shown more of a bold, generous and confiding spirit, but had exhibited so much coldness and caution. He regarded the scheme as tentative and halting. The action of the two bodies was not courageous and trusty. Had the bodies left out in the cold been included, a perpetual cause of dissension would have been avoided. It had been said that the present state of affairs was likely to last a long time; that only made matters worse. Was this a wise scheme? The Legislature has endeavoured to fuse all bodies. They could not hope to meet the full confidence of the Legislature unless they had a comprehensive scheme. He would like to see it reconsidered that they might accommodate themselves to the pressing needs of the State. He could not see that the joint body affected the State at all. They were bound up with the Society of Apothecaries and the problem would not be solved until a joint agreement was arrived at in which that body shared to a reasonable extent. The State looked to the Council to deal with the need for qualified men in the poor districts at present supplied only by unqualified men. This scheme did not go far enough, and an attempt ought to be made by it to raise the Society of Apothecaries in science and knowledge, and it was the duty of the Council to turn their attention to that subject.

Dr. QUAIN said that virtually there would be separate boards for half-qualified men. He wished to know what would be done with doubly-qualified men from Scotland. It seemed to him that the College would be in union with all the other examining bodies. He had used the word sham in the sense of a hollow thing, not a pretence. The union was not and could not be real. The College of Physicians had approved of it, but they knew less about it then. He did not believe they would approve of it now. Dr. Struthers had evidently failed to understand the conjoint scheme. He repeated his statement that the College licence would be henceforth a partial qualification. The College had for four years worked well on the lines of the old conjoint scheme. The expense and inconvenience were, he admitted, minor considerations. He wished to record his protest against the scheme.

The amendment was lost by a large majority.

Three further amendments were proposed and successively rejected, and in the end the proposition of Sir Henry Pitman was put to the Council and carried, the English Conjoint Scheme thus receiving the sanction which is necessary before it can come into operation.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

SIR,—I have read with great interest the letters in your columns on the above subject, and I venture to trespass on your space, because I happen to have had excellent

opportunities of forming an opinion on the matter, inasmuch as for a considerable period I was Resident at the Hospital for Children, Great Ormond Street, where it was part of my duty to admit all out-patients, passing them on to the physician or surgeon after briefly interrogating them as to their complaints. I should like to record one of many examples which have passed under notice. Amongst the patients for admission, one morning, was a delicate looking boy, about 10 years of age, whose mother told me that he was very poorly, suffering from constant headache. On asking if she could think of any cause, she at once replied that she "thought his lessons were too hard for him." I enquired of the boy what he had to do at school, whereupon he drew from his pocket a Euclid, saying that he could not learn the Fifth Proposition! From my own observation I should say that headache and disturbed sleep are the commonest troubles in children made to overwork at their books, and I have noticed in many, sudden "flushing" of the face; a child sitting at rest, and apparently without any cause, suddenly becomes suffused with redness which, after remaining a few seconds, passes off; in these children headache is constantly present.

I firmly believe that there is too much brain-forcing in elementary schools, at least amongst the poor; for one ought to remember the circumstances amidst which the children of the latter have to learn the tasks for the morrow, and it is possible that the same children who now suffer would fare otherwise were they carefully looked after at home.

Now, the answer to such an opinion as I have expressed, for it is nothing but an opinion, by Mr. Fitch, or anyone taking his view of the matter, is, naturally enough, that in such an important enquiry we must deal with facts and not opinions. But as it is almost impossible to obtain statistics which would be of value in such an investigation, beset, as must be obvious to anyone giving it a thought, with so many difficulties, I maintain that opinions expressed by those who have had great experience in children's hospitals, such as by the gentlemen who have already written to you, are entitled to the highest consideration. And it is to be hoped that those in authority may read the letters you have published, and that, in due time, the whole system of elementary education may be re-organised. Should this be the case, the public will owe you a debt of gratitude for taking up this matter which is really of national importance.

I am, Sir, yours &c.,
R. A. GIBBONS,
Physician to the Grosvenor Hospital
for Women and Children.

[To the Editor of the Medical Times.]

SIR,—In the correspondence on the subject of Over-pressure in Elementary Schools, to which your columns have been lately opened, nothing has interested me more than the indications of a causative connection between educational overwork and the development of choreic symptoms in school-children. So far as this may or may not be true in the case of elementary schools, my own observations have been too limited to allow of my expressing a personal opinion. But cases of this kind have from time to time come under my notice, and, in so far as they seem to illustrate one of the evil results of "over-pressure" in young scholars surrounded with more than average care and comfort, they may have some bearing upon the question as to how far similar results are likely to attend the application of over-pressure to the less capable and more poorly-nourished nervous system of the average Board School learner. One of the first of these cases was that of a young lady, greatly devoted to the study of music. There was a neurotic history on the father's side; no cardiac or rheumatic affection. After some weeks of hard work, which involved the copying of a good deal of music, she developed slight chorea, in the form of facial contortions, almost entirely limited to the muscles affecting the right angle of the mouth. Cure was complete at the end of three weeks, with rest and change of scene. Since then I have noted several cases in which more or less tremor of the facial muscles, and especially of those concerned in the movements of the angle of the mouth, have supervened sometimes during the preparation for, but generally in the course of or just subsequent to, examination. In the great majority of these cases the jactitation was unilateral, and in all such instances right-sided. All the patients were right-handed, and their work had, for the time being, involved an unusual amount of writing—most of it against time—in addition to a general increase of the subjects and the time of study. I have not seen a case of such symptoms developing in a left-handed school boy or girl. Only one of these cases developed general choreic movements, and that but to a slight extent; he soon recovered. The others either quickly got well, or at all events returned to school at the end of the holidays quite free from any sign of the affection. An adult is now under observation in whom, after prolonged periods of writing for some days together, there developes a slight paresis of the lip muscles of the right side, leading to temporarily altered articulation, and a slight dribbling of saliva. Bearing in mind the contiguity of the cortical centres for the movements of the hand and wrist and for those of the angle of the mouth respectively (and the spread of nervous energy from one to the other is well seen on watching the face of anyone using a screwdriver forcibly, or striving to turn a key in a rusty lock), is it too far-fetched to suppose that excessive motion of the hand and arm, as, *e.g.*, in the prolonged and hurried writing of examination papers, should lead to irritation of neighbouring motor centres *in a young and developing brain which has been at once irritated and exhausted by previous and prolonged overwork?* The hand and arm do not always escape; there may be fumbling with the dress, or purposeless twitching of the fingers; but sometimes the limb seems unaffected, as though its centres were more stable, or too exhausted. There appears a close analogy between ordinary chorea and those cured or curable cases of so-called locomotor ataxia; possibly they are homologous, *i.e.*, both are dependent upon *congestion* of the nerve-centres respectively involved. A congested tissue is being poisoned by the products of its own metabolism, causing first increase of irritability, and finally torpor. Given a brain in the requisite stage of congestion, the centres for facial movement would most readily be stimulated with reflex activity, seeing that the face presents so large an exposed and unprotected surface, with such a rich nervous and vascular supply, and with so many and so large sensitive areæ in direct connection with it. On this view, some form of facial chorea would naturally be among the earliest symptoms of an "over-pressed" brain; the simply work-worried child wearing its intermittent frown—a chorea of the brow-knitting muscles; the child that has written much and painfully showing twitching of its mouth, as well as of hand and fingers possibly. All this, of course, would be noted only in the earliest stages of any case which subsequently ran on into general chorea. Others, with much

wider experience than mine can claim to be, may perhaps be able to disprove the notion; but so far, I am tempted to believe that choreoid affection of some facial muscles is frequently the earliest indication of educational over-pressure amongst school children up to about the age of puberty, at all events.

Instances of insomnia and of somnambulism traceable to over-work have occasionally come under notice, and much more frequently cases of persistent headache, and of general nervous breakdown, towards the end of a long term's work. All these cases, however, are relatively very few in comparison with the total number of scholars under observation. But I am convinced that in the best of schools this proportion would be very much greater were it not for the vigilance generally exercised in detecting the earlier symptoms of malaise, &c., and the promptitude with which such cases are at once set apart for medical inspection, and, if necessary, for treatment, safeguards which are, as yet, unfortunately lacking in the School Board system.

I am, Sir, yours, &c.,

October 6th, 1884. CHAS. EDWD. SHELLY.

INVENTIONS AND IMPROVEMENTS.

ELECTRIC LIGHTING IN OUR DWELLINGS.

Notwithstanding the increase in the use of electric lighting in streets and public buildings during the past few years, hitherto we have been practically unable to obtain it in our dwelling houses. Where the wealthy owners of large mansions have overcome the difficulties of its introduction, they have at least had to incur an expense that would be prohibitive to the general public. The supply of electric lighting upon an extensive system, in a similar manner to the supply of gas, is at present impracticable. Even when there happens to be no difficulty in conducting wires from distant dynamos, the cost of the supply must, under the old system, be very large. There is at present no known means for measuring the amount of electricity consumed by individual customers of the suppliers, and consequently a charge has to be made for every lamp fitted in a house. To overcome this and other difficulties, Mr. Tayler-Smith has devised a system which must commend itself to every practical man. Acting upon the principle that every room in a house can seldom, if ever, be required to be fully lighted at one time, he has invented and patented moveable brackets, so that a limited number of lamps can be used in various places. By unhooking a lamp from one wall, it can be removed to the opposite wall or to another room, or to any place, in fact, which has been previously arranged to receive it. Consequently, all the lamps can be placed in one or in two rooms, if the brackets have been suitably arranged, and thus the supply of electricity sufficient for the limited number of lamps in the householder's possession can never be exceeded. By means of a variety of arrangements in the position of lamps a great economy of light is effected. An electrolabra can be easily moved from one room to another. A lamp from the wall can be connected with the table lamp. A moveable light supplied by a cord which runs upon a winch seems to us a very clever invention. A lamp which can be placed in any position over a bed is a most convenient apparatus for use in performing surgical operations, and there is even an arrangement by means of which an invalid can have a small disc, which he can place under his pillow, and by a movement light up his room in a moment. These inventions are shown at the Health Exhibition, and Mr. Tayler-Smith demonstrated their use at the *conversazioné* at St. Mary's Hospital on the 2nd instant. Then again the use of accumulators effects an immense saving. If the engine used is producing more electricity than the lamps are consuming, the superabundance passes into the electrical store room, and is kept for future use; thus not only economising the electricity, but preventing the injury to the wires which might otherwise take place. When the engine is stopped the accumulators afford means of providing temporary light in the night or at other times. Whether we consider this subject in regard to safety, health, or economy, it is equally worthy of attention. No fire, no harm of any kind seems likely to occur from it, the atmosphere is not deteriorated, and the furniture is not spoilt. But it may well be asked how will this system compare as regards cost with our present means of lighting, and here we must rely upon Mr. Tayler-Smith's own statements. It would seem that after a first installation the cost is little if at all in excess of gas to supply the same lighting, whereas there is a distinct saving in respect to cleanliness. There are many other interesting points in connection with this subject which we have no room to discuss, but we sincerely trust that before long electric lighting will become general in the dwelling-houses of all large towns, and especially in London where our breathing space is so rapidly being used up by extensive building. The practical difficulties have, as we have seen, been overcome. It only remains for the public to fully realise the value of good light and pure atmosphere to make economic domestic electric lighting not a dream but an accomplished fact.

INDIA-RUBBER BAGS FOR SUPPORT AND FIXATION OF THE HEAD IN DISEASE OF THE UPPER PART OF THE SPINE.

This invention has already been described by Dr. Wm. Jas. Fleming, of the Glasgow Royal Infirmary, in a recent number of the *Glasgow Medical Journal*, and the following account of it is extracted from his paper on the subject:—The arrangement consists of two sets of three fusiform india-rubber bags connected by a narrow flexible but non-elastic material, and having at the free ends flaps by which they can be laced together. In each set the bags are internally in communication with each other, and from the lowest depends an india-rubber tube with a stop cock to which the nozzle of an ordinary small blower fits. A size suitable to the particular case having been selected, it is, while collapsed, laced rather loosely round the neck. On inflation, the lower bag rests upon the root of the neck, the

clavicle and the muscles of the shoulders, while the upper bag moulds itself along the posterior portion of the jaw, the mastoid process, and the skull back to the occipital

region; the front of the apparatus, where it is laced, is on inflation rather withdrawn from the neck, so that no pressure on the trachea is produced. In practice I find it best in the majority of cases to adjust a piece of poroplastic round the neck like a wide turn-down collar, as shown in the diagram, and allow the lowest bag to bear upon this rather than the skin. If great lifting power is desired, the lateral expansion of the bags may be checked by a net or light bandage, but from their construction the chief expansion is in a vertical direction, so that the net is rarely necessary; indeed, it is generally easy to lift more forcibly than the patient can tolerate, but the wearers very soon come to manage the distension for themselves, carrying it just to the point from which they derive the greatest advantage. In some experiments which I made by placing the bags round a glass cylinder, over which a broad ring just slipped, I was able to raise over eight pounds through a distance of more than an inch; no doubt greater pressure could have been obtained, but the fear of bursting the bags prevented me from carrying the inflation further. By this means, then, I claim that we have the power of taking a large part of the weight of the head off the portion of the vertebral column above its connection with the shoulder girdle, and to a great extent of fixing the head. The apparatus is light, can be worn either in the upright or recumbent position, and when covered with a scarf is scarcely perceptible. No inconvenience has been complained of by the wearers except that in one case the heat was objected to, but this I hope at least to mitigate by fluting the inner surface. That the whole weight of the head can be borne by the apparatus I do not consider probable, but neither can this be attained by the jurymast, and we know how even the support of the hand in those cases, slight as this must be, gives relief. The apparatus is made by Messrs. Hilliard, of Glasgow.

LIQUOR CINCHONÆ (PAUL).

Messrs. Savory and Moore have recently brought under our notice a new Liquor Cinchonæ, specially prepared by a process elaborated by Dr. Paul, who will superintend the manufacture of the preparation, analysing and guaranteeing the contents of each bottle. Dr. Paul is well known as an expert in the art of cinchona bark assaying, and has had an exceptional experience of the best methods of extracting the alkaloids from the bark, so that any preparation which bears his name starts with a good character. The new Liquor Cinchonæ professes to contain the whole of the medicinal constituents of the best selected bark in their natural proportions and state of combination. One fluid ounce contains 24 grains of alkaloid and represents an ounce of bark of the best quality. The Liquor Cinchonæ is thus greatly superior to the liquid extract of the Pharmacopœia, prepared by a process which does not profess to exhaust all the active principles of the bark, and it deserves a fair trial at the hands of the profession.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 2nd, 1884:—

Thomas Matthews Angior, 39, Oriel Road, Bootle, Liverpool; Herbert William Brighouse, 98, Fortess Road, N.W.; Thomas Hindle Sykes, 50, Houghton Street, Southport; Edward Eggington Thompson, The Square, Tenbury; William Sidney Ridout Woodforde, Oakbank, Spencer's Wood, Reading.

Also on September 25th—

Philip Robert William Santi, 4, Doughty Street, W.C.

The following gentlemen also on the same day passed their Primary Professional Examination.

Harry Gravely, University College Hospital; Archibald Thomas, Middlesex Hospital.

The German-Speaking University in Prague.—Professor Christopher Aeby, of Bern, has recently been appointed Professor of Anatomy in this University.

University of Berlin.—A splendid legacy has just been left to the University, the late Countess Bose, of Cassel, having bequeathed to that institution the sum of 39,000*l.* for the benefit of poor students of medicine.

St. Mary's Hospital Medical School.—Mr. R. T. Graveley and Mr. F. Lewis, divided the Scholarship in Natural Science of one hundred guineas, open to such students of Epsom College as are sons of medical men.

A Physician-President.—Don Raphael Zaldivar, now on a tour in France, Italy and Spain, who is a much employed physician, has recently been elected for the third time President of the Republic of San Salvador.

Measles at Aberdeen.—A serious epidemic of measles is raging at Aberdeen, and as many as 1,000 children were on Monday reported as absent from the Board Schools from this cause alone.

The Epidemic at Kidderminster.—The outbreak of fresh cases of fever at Kidderminster still continues, and the only satisfactory feature is that they are much milder in character than the preceding ones. The number of deaths from typhoid fever registered in the borough up to Tuesday was 52. There is an increasing number of convalescents, and some are being sent away to convalescent homes.

The Vienna General Hospital.—On the occasion of the celebration of the 100th anniversary of the *Wiener Allgemeinen Krankenhaus*, with which he is so intimately connected, Herr Joseph Leiter, the celebrated Vienna surgical instrument maker, announced his intention of supplying artificial legs to the extent of 500 florins per annum, to patients who had undergone amputation.

Sanitary Assurance Association.—The Council of this Association has resolved to present to the Free Public Libraries of the country, copies of Mr. Mark H. Judge's "Sanitary Arrangements of Dwelling Houses, Notes in connection with the Sanitary Exhibits at the International Health Exhibition," recently published by the Sanitary Assurance Association, of which Mr. Judge is the Surveyor.

A New and Voluminous Author.—A contemporary states that "Jahrbuch" reports the treatment of 43 cases of diphtheria with turpentine. Dr. Jahrbuch had excellent results. We are reminded of the freshman who inquired at the library for the works of "Ibid."

The Cholera in France in 1884.—The ravages of the present epidemic have been much more considerable than is generally supposed. The *Lyon Médical* (October 5th), states that a statistical enumeration shows that from the 17th of June to the 15th September there have been about 5,000 deaths distributed over 200 communes, which supposes at least from 10 to 12,000 cases of the disease. Seventeen departments have been successively invaded.

Army Medical Department.—The undermentioned officers have been granted a step of honorary rank on retirement:—To be Surgeon-General—Deputy Surgeon-General J. J. Clarke, M.D., of the Bengal Army. To be Deputy Surgeons-General—Brigade-Surgeon W. Watson, M.D., of the Bengal Army; and Brigade-Surgeon T. Mathew, of the Bengal Army. To be Brigade-Surgeon—Surgeon-Major F. Odevaine, of the Bengal Army.

Non-Communication of Leprosy in California.—The *Pacific Medical and Surgical Journal* states: "Since the foundation of the State of California, 35 years ago, Chinese immigration has gone on, with the occasional introduction of cases of leprosy, and in all those years, occupying more than a third of a century, only one doubtful case of leprosy has been found to prove the risk of the disease extending to the white population. The subject has more than once been considered by the State Board of Health, and not a solitary instance has been reported to it from any part of the State." It is interesting to compare this statement with the history of it in the Sandwich Islands, where the disease has spread so disastrously.

Charitable Bequests.—Mr. William James Patterson, late of Carlton Crescent, Southampton, has bequeathed 5,000*l.*, free of duty, to the executive body of the Royal

South Hants Infirmary, to be called "the Patterson Chaplain Fund," upon trusts for investment, the income to be appropriated as a stipend for a chaplain, who is to be a member of the established Episcopal Church of England, and a graduate of one of the Universities of Oxford or Cambridge; 1,000*l.* to the Royal South Hants Infirmary for its general purposes; 500*l.* to the Southampton Dispensary; 250*l.* to the Royal Hospital for Incurables, Putney; and the National Hospital for the Paralysed and Epileptic, Queen's Square, Bloomsbury.

Fifeshire Medical Association.—The annual meeting of this association was held last week in the class-room of Professor Pettigrew, United College, St. Andrews. There were representatives present from all parts of the county. Dr. Archibald, the president, delivered an address, in which he reviewed the history of St. Andrews generally, and the University particularly. He gave it as his opinion that that Faculty should be strengthened by the addition of a Chair of Botany, and that the whole should be used as the basis of a Science Faculty. Dr. Dow, Dunfermline, was appointed president for the ensuing year; Dr. Macdonald, Cupar, vice-president and treasurer; Dr. Douglas, Cupar, secretary; and Drs. Archibald, St. Andrews, and Whitelaw, Cupar, members of Council. Dr. Hunter Mackenzie, Edinburgh, gave a demonstration of the tubercle bacillus, and exhibited specimens under the microscope. The members afterwards dined together at the Cross Keys Hotel.

The Board of Control of Lunatic Asylums in Ireland.—The Lord Lieutenant, by the advice of the Privy Council, has re-constituted the Board of Commissioners for General Control of Asylums for the Lunatic Poor in Ireland. His Excellency has appointed Major-General H. R. Sankey, R.E., C.B., Chairman of the Commissioners of Public Works in Ireland; John Nugent, Esq., M.D., Inspector of Lunatic Asylums in Ireland; George W. Hatchell, Esq. M.D., Inspector of Lunatic Asylums in Ireland; William R. Le Fanu, Esq., Commissioner of Public Works in Ireland; and Samuel Ussher Roberts, Esq., Commissioner of Public Works in Ireland, to be Commissioners for General Control and Correspondence, and for the Superintending and Directing the Erection, Establishment and Regulation of Asylums for the Lunatic Poor in Ireland.

Egypt.—Surgeon-General J. Irvine, of the Army Medical Department, having returned to Egypt and resumed duty as Principal Medical Officer of the Army of Occupation in that country, Deputy Surgeon-General Fox, who has been holding that position, has returned to Alexandria from Cairo, and taken over the post of Principal Medical Officer of the Alexandria Garrison. The four lady nurses who have been selected to proceed to Egypt for service with the Army Medical Department in the Nile Expedition sailed in the steamship *Cameo* from Woolwich Arsenal on Wednesday. They will be distributed among the hospitals which are now being established at Wady Halfa and other stations on the Nile, and although they are few in proportion to the number of male nurses who will have to be employed, they will undoubtedly have an influence for good such as only the gentler sex can exercise in the sick chamber. In all the military hospitals at home these devoted women work side by side with the soldier orderlies of the Hospital Corps, and many of them have seen active service abroad, as shown by the ribands they wear for the last campaign in Egypt, together, in many instances, with the Royal Order of the Red Cross. A medical officer will accompany them to Egypt, probably Surgeon-Major F. A. Davy, M.D., who has been for some time at the Auxiliary Hospital, Woolwich; and special arrangements have been made for their comfort on board ship.

Sanitary Undertakings in the Provinces. — Considerable activity prevails in many of the provincial towns and districts in remedying defective water supplies and drainage. Improvements in water works have been or are being carried out at Nottingham, where a new reservoir holding 1,500,000 gallons has just been completed at Mapperley Plains; at Torquay, where a second storage reservoir is in progress at Kenwick, so that there will be a total of 300,000,000 gallons of soft pure water always on hand, or a constant supply for the whole district sufficient to last ten months; at Launceston, where a storage reservoir of 2,000,000 gallons is to be built at Trethorne; at Frodsham, where a recent boring has produced a daily supply of 12,480 gallons at a depth of 22 feet, this supply to be increased to 30,000 gallons; at Stratford-on-Avon, where 14,000*l.* is being spent upon water mains (11 miles) and a new reservoir; at Peebles, where an outlay of 6,000*l.* is undertaken to supply the town from the Manor Springs; at Market Harborough, where it is proposed to spend 19,000*l.* in bringing water at the rate of 20 gallons per head per day from a stream near Husbands Bosworth; at the village of Mevagissey, in Cornwall, where a reservoir is being built to hold 342,000 gallons; and at Petersfield, where 5,800*l.* is to be spent on combined water and sewerage works. An extensive scheme is under consideration for the drainage of Rochester, Chatham, Strood, and Gillingham, at an outlay of 90,000*l.* Frome is about to spend 15,000*l.* in sewage works. Cleckheaton, near Bradford, is about to deal with its sewage by means of chemicals, and other plans are being carried out at Howden, in Yorkshire, at a cost of 3,000*l.* Presteign, in Radnorshire, and King's Lynn, in Norfolk.

Society for the Study and Cure of Inebriety.—A meeting of this society was held in the large room of the Medical Society on the 7th instant. The President, Dr. Norman Kerr, who was in the chair, exhibited specimens of the South African kola nut, *sterculia acuminata*, said to have the property of preventing intoxication. Containing a considerable proportion of caffeine, with a lesser amount of theobromine and tannin, it was a stimulant and tonic. Dr. Alfred Carpenter read a paper on the Study and Cure of Inebriety, with special reference to the recent *Times'* article, contending that, to the query "Is the study of inebriety needful?" the answer must be Yes, and the results of this study must be made known, as dense ignorance widely prevails on the subject. The author insisted on the physical and disease aspect of inebriety, which was often caused by nervous shock, as from sudden loss of property, grief, &c. The worst effects were seen in the children of young drunkards. Pains and penalties were no cure. If dipsomania should be punished, why not dyspepsia? Total abstinence was an essential to cure. Mr. Oakey Hall described American legislation for the inebriate.

Communication of Rabies to the Fœtus.—The *Revue de Thérapeutique*, for September 15th, gives an account of an experiment performed at the Veterinary School, at Alfort, towards determining whether rabies may be communicated by the mother to the fœtus and consequently without lesion of any kind. Two bitches about to bring forth were bitten by a mad dog. It is not stated how long the period of incubation was, but six hours after the symptoms of the disease had manifested themselves with great violence the puppies were born. The mothers suckled and licked them with tenderness. The paroxysms came on again with redoubled violence from time to time, but whenever the little ones whined, the mothers seemed to forget their sufferings and again began licking and soothing them in a state of complete calmness. They died within a few minutes of each other twelve hours after the symptoms had become urgent. The pups were carefully washed and sponged, and fed with milk; but in spite of every care they all died in a few days. The reporter asks whether these pups were infected through the milk of the mothers, or did there take place a cutaneous absorption of the virus deposited during the lickings which they were subjected to. Cases of poisoning from the licking of a mad dog have several times occurred when no excoriation existed.

Female Hospital Internes.—His "inexorable logic" drives a Frenchman into many absurdities, and surely to attempt to allow women to become internes is one of them. Not so, says the *Progrès Medical;* you admit her as a candidate for the diploma, and if successful she is entitled to all the logical consequences that ensue. Many years ago that journal counselled her to seek some other profession more suited to her physiological organisation, but did not for a moment dispute her right of pursuing

that of medicine. This once admitted there is no post she may not fill. "If it suited the fancy of our doctresses to compete for the *agrégation*, what regulation is there that prevents them, and where is the obstacle to their filling a chair in the Faculty? Nor is there any law that we know of which would prevent a gallant minister from creating a chair for a doctoress who had rendered herself famous by the brilliancy of her work in any specialty." So also in the *Assistance Publique*. Female students long since obtained permission to act as externes, whose duties they have satisfactorily fulfilled, and they now demand the power of contesting the *internat*, which would eventually open to them the highest posts in the hospitals. Although this claim is backed up by the *Conseil de Surveillance* yet the *Administration de l'Assistance Publique* looks upon it as rather a serious matter, and hesitates to follow up its former approval of the appointment of externes. By the aid of the present liberal Préfet de la Seine and Ministre de l'Instruction Publique, however, the *Progrès* believes that this body will have to pursue the logical sequence of its former resolution.

Glasgow Health Report.—The Health Officer's report states that there have been 482 deaths registered during the past fortnight as against 483 for the preceding fortnight. The number of deaths from pulmonary disease was 94, against 108. There has not been such a low death-rate from pulmonary diseases since August 1882. The number of deaths from fever was 26, of which number enteric fever caused 25 deaths, and one undefined. Of these the following shows the place where they died and their milk supply:—

	Infected Dairy.	Other Dairies.
In Western Infirmary	1	..
„ Royal Infirmary	3	..
„ Belvidere	10	5
At Home	2	4
	16	9

Since the 18th September there have been added to the Western Infirmary group nine new cases (one nurse, one cook, the son of the lodge-keeper and six patients). Belvidere group, twenty new cases (three nurses, two cleaners, and fifteen patients). Royal Infirmary group, ten cases (two nurses, two under-servants, and six patients), most of whom have been attacked after they had been dismissed from the infirmary. Some contributory evidence has been obtained of the activity of the specific infection conveyed by the milk of the agent who supplied these institutions. In the north quarter of the city he has a branch establishment situated in an isolated block of dwelling-houses, in which there are 235 families, of whom 128 were customers of this dairy. Contemporaneous with the outbreak in the hospitals, there were fourteen cases of enteric fever among the 128 families who obtained their milk from this dairy. The City Poor-house is supplied by this agent, and two patients, an adult and a child, suffered from enteric fever. Dr. Robertson, the Medical Officer, says he has never known any inmate contracting this disease in the poor-house until now. At present there are in the fever hospital 232 cases of scarlet fever, 175 cases of enteric fever, 5 of typhus fever, 45 of measles, 10 of whooping-cough; in all 467 cases as compared with 409 in the previous fortnight.

The Greely Arctic Expedition.—The *Philadelphia Medical News*, for September 8th, inserts the highly interesting official report of Dr. Edward Green, surgeon of the U.S.S. *Thetis*, of the Greely Relief Squadron, in which he furnishes the detailed medical history of the unfortunate expedition, and of the physical and mental condition of the rescued survivors. This is far too long for our pages, but we may transcribe the judicious editorial comments which it has called forth.—"The results of this expedition differ in one important point from former ones—but a single case of scorbutus occurred. The advance in our knowledge of the purpose subserved by the various kinds of aliment, permits the construction of dietaries adapted to the various exigencies of life. Given a route of the proposed exploration, the isotheral and isochimenal temperatures, and the kind and quantity of work to be done, a diet table can be formed which will be exactly adapted to the conditions present, so that the body will be maintained at its maximum of efficiency. That the aliment furnished to the Greely Expedition served its purpose is shown in the fact that the party was in good condition when it reached its permanent quarters. The solitary case of scurvy would not have occurred, probably, if the other circumstances had been propitious in the affected individual. Another lesson is the very small amount of food which may suffice to keep the human machine in a state of efficiency. Compared with some other historical examples, the food allowed each member of the party at Cape Sabine was liberal; it was in the aggregate nearly 15 ozs. At the siege of Paris the daily rations was at one time reduced to 10 ozs. of bread and 1 oz of meat. The rations allowed the United States' soldiers in the Andersonville prison was 5 ozs. of bacon and 20 ozs. of unbolted corn-meal, which was not equal, in points of material available for nutrition, to that given the Greely party. In view of the small amount of aliment allowed at the outset, and subsequently greatly lessened, an attempt was made to assimilate their lives to that of a hybernating animal. This, we believe, was unwise. Although the amount of food and the low temperature precluded active exercise, they would have done better to accommodate themselves, as nearly as possible, to the conditions of health in normal surroundings. A hybernating animal has a store of fat laid up for consumption during the period of repose. The accumulating carbonic acid lessens the activity of the nervous centres, and induces a comatose state, during which all the functions are inactive. Such a state of things is impossible to man, and the attempt to accommodate themselves to such abnormal conditions only produced a pathological state and accelerated waste. The air space allowed them was entirely inadequate, and the enforced lack of attention to personal cleanliness prevented excretions by the skin. Hence animal heat was not properly developed, and the food taken was not efficiently utilised, either to promote nutrition or to maintain the body temperature. Suitably placed as to their hygienic surroundings, and the functions sufficiently exercised, the amount of food allowed at Cape Sabine, at the beginning of their stay there, might have been much lessened, and yet have proved sufficient. In the procees of slow starvation the beneficent results greatly lessen the terrors of the situation. At a certain point the desire for food ceases until the stomach is roused from its functional torpor by the introduction of some aliment. In those cases of voluntary fasting, with the details of which the public is now and then regaled, it is probable that the experimenter experiences but little the pangs of unsatisfied appetite after the first few days of torture. Such was the experience of the Greely party. The other beneficent experience of the starving, is the pleasing delirium in which feasting on sumptuous viands is indulged; in such a mode does nature offer compensation in this dire extremity. But the delirium may take other forms. In the struggle for existence, when only the animal instinct remains, and men living in the state of animals lose the distinctive qualities of the civilised state, it is not surprising that mere savage feelings sway them entirely, and hence the delirium, if not occupied with the pleasing illusions of feasting, may take the form of an aggressive animality.

Professor Von Bergmann's Surgical Clinic.—A correspondent of the *Canada Medical Journal* gives the following particulars of the clinic of Von Bergmann, the successor of Langenbeck at Berlin. The operating theatre is large and well-ventilated, the porcelain floor, tables, and woodwork being scrubbed, and the rest of the room, seats, &c., swept and sprinkled with carbolic acid every morning. Once a week also every part of the theatre is thoroughly scrubbed and disinfected. Carbolic spray (two per cent.) plays on it for at least two hours every morning, during which all patients who can be brought in have their dressings changed there. The operating tables (for there are often three and even four in requisition) are covered with sheets of rubber a third of an inch thick, which project beyond the edges, so that the patient never comes in contact with the wood; and after each operation, the rubber is thoroughly washed with sublimate solution (1 to 1,000).

The patient is always completely stripped and covered with clean sheets, and a blanket if needed; and these, whether soiled or not, are sent at once to the wash-house. Carbolic acid (two per cent.) and sublimate (1 per 1,000) are used indifferently as disinfectants, a strength of five per cent. of the former being sometimes employed for washing the intestines during abdominal section, &c. Iodoform is used in powder when the wound is situated in a cavity, as in the nose, mouth, or vagina; and a five per cent. ointment is kept at hand to anoint the fingers before digital examination. A ten per cent. solution in sulphuric ether is also used to wash out the wound in resections and for tampons. Spray is not always employed, but is so most regularly during intra-peritonæal operations. For dressing, sublimate gauze and wadding or wool form 99 per cent. of what is used, and iodoform gauze, &c., the rest. The sublimated gauze, made in the hospital, is beautifully soft and light, and perfectly dry. Tampons of iodoform gauze, rolled up in different sizes and tied, are used to pack cavities or wounds not expected to heal at once, being first dipped in the ether solution. Protective is not applied, the outermost dressing usually consisting of several layers of sublimated gauze, with a very thin rubber tissue between the two outer layers. The bandages are of sublimated gauze, charged with a little starch, and dipped in water before applying; they hold the dressings splendidly. Plaster bandages are also used very freely; and the limbs are nearly always steadied by strips of felt, gutta percha, or light splints of wood or of perforated zinc. During an operation, all engaged are clad in clean white-duck overcoats reaching nearly to the ankles, and having the sleeves short, so that the forearms are always bare. If at all soiled they are changed before the next operation. Everyone washes their hands with soap and a nail-brush, dipping them in carbolic or sublimate solution before and frequently during the operation, the patient's body near the site of the operation being also washed with the same. The instruments lie in carbolic, and are washed in pure water instantly after using. No sponges are used except to guard viscera against injury, &c.; but small pieces of dry gauze are very freely used instead, so that the floor after a bloody operation is covered with them. Irrigation is employed to a surprising extent. In the room above the theatre are two large tanks full of the solutions, with which are connected rubber tubes supplied with ingenious nozzles. There are also at hand large cans, like enormous tea-pots, to flood the wound and table whenever it seems desirable, which is very often. Carbolised catgut is generally used for ligatures and sutures; but in many cases Chinese silk is preferred for the latter, and sometimes, as where great force has to be used, for the former. The drainage tubes are of extraordinary large size, the advantage of which is doubtful. "A word or two about instruments. Bergmann uses several which are seldom thought of at home. Three kinds of retractors are in use—sharp treble hooks, short broad-beaked blunt, and broad long-hooked-beaked blunt retractors. These are *always* used, the first and second assistants applying them as soon as the skin is incised, keeping the wound well open. In many cases the sharp hooks suffice; but in some, as in resection of the hip, ligature of the subclavian, &c., when a very deep wound is made, the last-named are very useful. Single hooks of various sizes, both blunt and sharp, are also much used. To me it seems that these retractors are very useful, keeping the wound well open down to the bottom, and allowing an uninterrupted view of the knife. They also keep important and delicate structures well out of harm's way. The artery-forceps used are those of Langenbeck, much like those known to us as torsion forceps. They are used in large numbers, as no vessels are tied until the end of the operation, except in abdominal section, when great pains are taken to arrest *all* bleeding vessels before opening the peritonæum. In resections and operations on bone, very strong knives of many different shapes are used, and recourse is very frequently had to chisel, gouge, or sharp spoon. All these, and all instruments, as far as possible, are made of one piece of steel, the handles being plated in nickel, and they can thus be made aseptic with the greatest ease. Bergmann also uses the chain-saw very commonly and the sharp spoon—this latter indeed is scarcely ever out of his hands. In his operation on bone he takes the greatest pains to remove every fragment that seems at all suspicious; and also, with scissors and forceps, cuts away all the thickened and infiltrated tissue always found about diseased bones and joints. The enormous wounds made are tightly stuffed with iodoform tampons, and heal in a really surprising manner . . . . In conclusion, let me say that the expense of carrying out this system must be enormous; but in this happy land the hospitals, &c., are all Government institutions, and have practically *carte blanche*, and the director (in this case Ernest von Bergmann) is an absolute sovereign in his own institution."

APPOINTMENTS.

Benton, Samuel, M.R.C.S. Eng., M.R.C.S. & L.M. Lond.—Medical Officer to the Buckingham Palace Road Workhouse, St. George's Union.

Creagh, William, L.R.C.S. and L.M. Ire., L.A.C. Lond.—Medical Officer to Lullington and Rosliston District, Burton-upon-Trent Union.

Cripps, C. Couper, M.B., M.S. Durh., M.R.C.S.—House Physician to the Hospital for Women, Soho, *vice* Felix Winrace, M.D., resigned.

Deming, C. Ernest, L.K.Q.C.P.I., L.R.C.S.I.—Senior Assistant Medical Officer to the Salop and Montgomery County Asylum, Shrewsbury, *vice* W. H. Racker, M.D., resigned.

Gibson, Charles John, M.B. and M.C. Edin.—Medical Officer to the Stone District, and the Workhouse of the Stone Union.

Harmer, Sidney Frederic, B.A.—Demonstrator of Comparative Anatomy in the University of Cambridge.

Harvey, Frederick George, M.R.C.S. Eng., L.R.C.P. and L.M. Edin.—Medical Officer to Acton Burnel District, Atcham Union, *vice* Mr. John Glover, resigned.

Ingoldsby, Frederick, M.R.C.S. Eng., and L.R.C.P. Edin.—Assistant Medical Officer and Dispenser to the Workhouse Infirmary, Fulham Union.

Johnson, Samuel Ebenezer, L.R.C.S. Edin., and L.S.A. Lond.—Medical Officer to Balsall Heath District, King's Norton Union, *vice* Mr. Richard Farnham, resigned.

VACANCIES.

Aberystwith Infirmary.—House Surgeon. (*For particulars see Advertisement.*)

Bristol General Hospital.—House Surgeon. Salary, £120 per annum, with board, washing and residence in the house. Candidates must be Members of the College of Surgeons of London, Edinburgh, Glasgow or Dublin, and also Licentiates of the Apothecaries' Company of London or Dublin, or some other recognised medical qualification and must produce testimonials of good moral character and ability and must send certificate of registration. Applications to be sent to the Secretary, on or before October 27th.

Central London Sick Asylum District.—Assistant Medical Officer and Dispenser. (*For particulars see Advertisement.*)

Charing Cross Hospital, Strand, W.C.—Assistant Physician. Also, Anæsthetist. (*For particulars see Advertisement.*)

Cuckfield Union.—Medical Officer to the Fourth District, *vice* Mr. W. E. Porter, resigned. Area, 13,598 acres. Population, 4,793. Salary, £95 per annum.

Hull Borough Asylum.—Assistant Medical Officer. (*For particulars see Advertisement.*)

Mile End Old Town Hamlet.—Assistant Medical Officer to the Infirmary, *vice* Mr. Henry Beattie, resigned. Salary, £100 per annum, with board and lodging.

North Shields and Tynemouth Dispensary.—House Surgeon and Dispenser. Salary, £130 per annum, with house, coals, water and lighting. Candidates must be legally qualified. Private practice prohibited. For further information apply to the House Secretaries, to whom applications with testimonials are to be sent before October 15th.

Swansea Hospital.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates must be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28.

The Kilburn, Maida Vale, and St. John's Wood General Dispensary.—Resident Medical Officer. Salary, £100 per annum, with furnished rooms, coals, gas, and attendance. Candidates must be doubly qualified. Applications and testimonials to be sent to T. W. Dobson, Esq., Hon. Sec., at the Dispensary, 13, Kilburn Park Road, N.W., on or before October 15th.

DEATHS.

Brewer, Thomas, M.R.C.S., of New North Road, Huddersfield, on September 29th, aged 44.

Duncan, P. C., M.D., at 51, Great Marlborough Street, W., on October 7th.

Jowett, Joseph, Surgeon-Major (retired), at 12, Cedars Road, Beckenham, on October 3rd, aged 69.

NOTES, QUERIES, AND REPLIES.

"*Bizarre.*"—It is our rule never to give such information as you require.

COMMUNICATIONS RECEIVED—

Dr. Quain, London; Dr. Donkin, London; Mr. A. Wynter Blyth, London; Dr. Isambard Owen, London; Dr. Clifford Beale, London; Dr. Shelly, Hertford; Mr. Noble Smith, London; The Secretary of the Apothecaries' Society, London; The Sanitary Commissioner for the Punjab, Lahore; Mr. E. W. Richardson, jun., London; The Registrar-General, London; Mr. D. Fraser, Paisley; Dr. Norman Kerr, London; Dr. R. A. Gibbons, London; Our Vienna Correspondent; Our Dublin Correspondent; Our Glasgow Correspondent; Our Edinburgh Correspondent; The Secretary of the International Health Exhibition, London; Dr. E. Symes, Thompson, London; The Dean of the St. Mary's Hospital Medical School, London; "Bizarre"; The Secretary of the Devonshire Hospital, Buxton; The Secretary of the London Society for the Abolition of Compulsory Vaccination; Mr. B. Lampe, London; The Secretary of the Medical, Pharmaceutical, etc., Exhibition, London.

BOOKS RECEIVED—

The Boy's Own Paper, Vol. 6—The Girl's Own Paper, Vol. 5—Notes on Materia Medica aud Pharmacy, by Fredk. T. Roberts, M.D.—Handbook of Diseases of the Eye, by Henry R. Swanzy, A.M., M.B.—Étude sur Les Cystites, par le Docteur F. Leprévost—Système Nerveux Vaso-Moteur, par A. Dastre et J. P. Morat—Dissection of the Human Body, by Luther Holden—The Ophthalmoscope, by Ole B. Bull, M.D.—Half-Yearly Report of the Port of London Sanitary Committee, ending June 30th, 1884—Report of the Quekett Microscopical Club—Lectures on Cataract, by R. Brudenell Carter, F.R.C.S.—On the Development of Physiological Chemistry, &c., by Professor Felix Hoppe-Seyler—Micro-Organisms and Disease, by E. Klein, M.D., F.R.S.—Report on the Sanitary Condition of the Borough of Birkenhead for the year 1883—Archivio di Ortopedea—The Sweet Story of Old, by Hesba Stretton.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révne Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médical—The Glasgow Medical Journal—The Yorkshire Post, Oct. 2—The Analyst—Revue Mensuelle de Laryngologie, etc.—Revista Internazionalê—Centralblatt Therapie—The Polyclinic—The Australian Medical Journal—An Ephemeris of Materia Medica, etc.—L'Yonne—The Bristol Medico-Chirurgical Jonrnal—The Practitioner—Revista de Medicina—Popular Science News.

APPOINTMENTS FOR THE WEEK.

Friday, October 10 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society of London.—Dr. Haddon, "On certain Nerve Symptoms in Rheumatic Affections;" Mr. Croft, "Cases of Preputial Calculi;" Dr. Crocker, "On a Case of Urticaria Pigmentosa or Xanthelasmoidea;" Dr. Finlay, "On a Case of Perforation of the Vermiform Appendix;" Mr. Golding Bird, "On a Case of Dislocation of the Patella."

Saturday, October 11.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, October 13.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, October 14.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal Sonth London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, October 15.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, October 16.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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SUMMARY OF CONTENTS, OCTOBER 4.

MEDICAL TIMES

AND GAZETTE.

No. 1790. LONDON, SATURDAY, OCTOBER 18, 1884.

Contents.

THE CAUSATION OF LABOUR.

By C. E. SHELLY, M.B., Cantab.

Since the time when it became necessary to relinquish the convenient and labour-saving assumption that the fœtus—finding itself "cabined, cribbed, confined" and determined on cutting the Gordian knot of its mysterious trammels by a practical *solvitur ambulando*—made its way into the world of its own free will and by the exercise of its unaided muscular energy, obstetric writers have sought and seen many and various explanations of, and causes for, the occurrence of parturition at term. Though Denman was content with the sententious aphorism that, the needful preparations having been accomplished, "Labour takes place by the command of God," others were not satisfied without endeavouring to investigate more minutely the *modus operandi*; and if—regarding their results with that advantage of mental perspective which the lapse of time confers on him—the observer of to-day is enabled to descry how the importance of individual discoveries and deductions was often over-rated, and a part thus made more or less to do duty for the whole; he must also acknowledge his indebtedness to them, not merely for ascertained and isolated facts, but for a whole array of correlated discoveries, which he may indeed now arrange in something of their due order and association, and to each of which he may hope to assign its proper place. That the theory propounded by an investigator has subsequently been disproved, does not invalidate the facts on which it was (mistakenly) founded—any more than the fall of a house negatives the material existence of the earth—nor does it diminish their right to be regarded as links in the chain of causes which have, we may feel assured, an arrangement orderly and definite although not yet mapped out, or realised as such by us.

In explanation of the production of labour in the parturient female, theories have been proposed which made the process dependent upon:—(1) The uterus having reached its limit of distension; (2) The so-called obliteration of the cervix and its consequent inability any longer to oppose the contractions of the body of the organ; (3) Irritation of the nerves of the cervix uteri by the complete dilatation of its sphincter fibres; (4) The irritating presence of a large amount of venous blood in the susceptible uterine tissues; (5) The partial and progressive separation between the decidua and the uterine wall which takes place during the later period of pregnancy; (6) A stimulus derived from ovarian excitement; while others, in despair of finding any more satisfactory solution of the problem, are fain simply to refer it to; (7) A *natural law*, similar to that which causes the shedding of ripe fruit. If we examine some of these theories more in detail, it will be found that, while no single one of them

affords in itself an entirely sufficient explanation, the various facts upon which they severally depend may be collectively so arranged as to afford in the aggregate a satisfactory working hypothesis.

Theory No. 7—if theory it can be called—seems at first sight to shelve the whole question of cause, and to entrench its advocates behind a stolid generality; yet it really contains a great physiological truth, for the very definite and special process by which the falling of ripe fruit—and of deciduous leaves—is provided for, is strictly analogous to the equally definite series of anatomical changes upon which Sir James Simpson founded the hypothesis which has been distinguished above as (5), and to which it will be necessary to allude again hereafter.

To say that labour commences when the uterus has reached its limit of distension is not to explain how distension begets expulsive action; nor does it meet the cases of expulsive uterine effort occurring in the early months of normal gestation, or in extra-uterine fœtation; or those instances—as, *e.g.*, of twin-pregnancy—in which the gravid uterus sometimes attains a much larger bulk than is usual in the same individual; or, again, why labour should follow rupture of the membranes with escape of liquor amnii and consequent diminution in the volume of the uterine contents. And yet, having regard to the influence produced by the mere bulk of their contents upon the contractile action of the walls of other hollow viscera, such as the bowels, the stomach, and the chambers of the heart, we are not justified in denying that the womb is in any degree stimulated to contraction by the pressure exerted by its contents, especially as the uterine nerves undergo, during pregnancy, a progressive development both in size and in irritability. Still, this cause cannot be regarded as, in itself, sufficient to account for the phenomena of parturition taking place with such regularity, with such comparative punctuality, and with such force; and while not without a certain value, it must be classed as quite a subsidiary factor in the process.

The second theory is open to various objections; but it conspicuously fails to account for the occasional setting in of labour during the early months of utero-gestation, and while the cervix is still rigid and unyielding. On the other hand, the advocates of the third theory, which has been ably expounded by Dubois, hold that in the complete obliteration of the cervix its fibres attain their highest physiological development. This part alone of the uterine parietes appears to possess a direct nervous communication with the cerebro-spinal system by means of twigs derived from the sacral plexus; the other (motor) uterine nerves being derived from the sympathetic. It is assumed that irritation of the nerve fibrils in the distended and susceptible cervix induces a reflex action, whereby contraction of the whole organ ensues; and this assumption establishes a tempting analogy between the expulsive cycle of the uterus and that of other hollow organs, such as the bladder and the rectum, and best affords the further explanation required by the distension theory. Its importance cannot be considered as altogether disproved; and we ought probably to recognise that uterine action may be evoked, or at least augmented, in this way and under certain conditions; although it cannot be accepted as the all-sufficient cause of the on-coming of labour since it fails to account for the occurrence of uterine contractions in cases of either abortion or of extra-uterine pregnancy.

The ingenious theory which was mentioned in the fourth place, is founded upon certain experiments performed by Brown-Séquard; who ligatured the trachea of pregnant animals after having previously destroyed the lower portion of the spinal cord. The uterus immediately began to contract, but the contractions ceased on relaxing the ligature, to be resumed as soon as it was again tightened. These phenomena were explained as being occasioned by the contact of venous blood with the preternaturally irritable muscular fibres. The earliest uterine contractions were thus connected with the large size of the uterine "sinuses" which ensures the presence within the substance of the uterine wall of a large quantity of venous blood; and hence, "so soon as the muscular fibre reaches, at the termination of pregnancy, its highest point both of irritability and of development, it becomes for the first time excited to contraction. The immediate result of this is to empty, in a great measure, the sinuses of blood, but so soon as the rhythmical relaxation occurs, the venous blood once more gains access to the irritable fibres, and anew excites them to contraction."

It is obvious that it would be to the advantage of the fœtus (if of viable age) that its expulsion should coincide with the incidence of any cause which had already operated so as to render the maternal blood unfitted for its further nutrition. But this theory fails to explain why expulsion of the ovum should take place in the earlier months of pregnancy, or why it should be excited by rupture of the membranes. Although it has been shown that the passage of venous blood through the capillaries of a muscle—whether of the striated or unstriated kind—induces its immediate contraction; and although the experiments of Dr. Bennett Dowler[1] (who observed the phenomena of independent contractility in the muscles of amputated limbs) and others prove that the influence of the central nervous system is not essential; it must not be forgotten that "however thoroughly we may destroy the lower half of the spinal cord, there still remains —in the connections which subsist between the sympathetic system and the upper part of the cord—a possible, though circuitous route, through which the important influence of the cord may still, although more feebly, be exercised upon the uterus (Leishman).

While it is difficult to admit in this theory of Brown-Séquard the one efficient explanation of the occurrence of uterine action, the cause to which he has drawn attention can scarcely be without some influence; under certain conditions it probably exerts an important influence; and the violent expiratory efforts and voluntary straining which occur during the second stage of labour may possibly act not merely directly by producing pressure upon the abdominal contents, but may also tend indirectly to augment the uterine contraction by inducing—as they sometimes obviously do—a condition of partial and temporary asphyxia which reacts upon the uterine fibres, after the fashion indicated above. Moreover, since the stimulus to contraction in such cases depends on the deficiency of oxygen rather than on the presence of carbonic acid,[2] we may here find a partial explanation of the tendency to abortion exhibited in the course of profound anæmia and of certain febrile diseases.

The theory which occupies the fifth place on our list was first enunciated by Simpson, and has been elaborated into something very definite by Dr. Karl Schroeder.[3] According to this view, "the influence of the sympathetic in the expulsion of the ovum is called forth by the irritation which the ovum exerts upon the terminations of the nerves on the inner surface of the uterus; by reflex action that irritation is transformed into motor activity. Only towards the end of the tenth month" of gestation does this irritation begin to be

[1] Experimental Researches on the Post-mortem Contractility of the Muscles.

[2] Drs. Radcliffe and George Harley.

[3] A Manual of Midwifery, including the Pathology of Pregnancy and of the Puerperal State. Third Edition. Trans. by Dr. C. H. Carter.

exerted, "because, only then—through fatty degeneration of the decidua—does the ovum become a foreign body in the uterus. This fatty degeneration of the peripheral layers of the ovum causes a separation between the ovum and the uterus, which the resulting contractions complete."

There is very much to be said in favour of this theory; and we must attribute to the causes which it specifies a considerable share, as will be shown hereafter, in the production of labour at term. But it fails to explain why labour should occur just at that period of gestation which is so constantly the tenth multiple of a catamenial epoch—reckoned from the menstruation immediately preceding conception; or to explain satisfactorily why an apparently healthy ovum should be aborted; or why expulsive uterine action should take place in cases of extra-uterine pregnancy; and for these reasons it cannot be accepted as the one conclusive theory of the causation of labour, to the exclusion of all others.

The sixth theory is that propounded by Dr. Tyler Smith,[4] who maintained that "ovarian excitement is the law of parturition in all its forms of ova expulsion." He argues that the exciting cause of labour is due to the recurrence of the periodical excitement of the ovary, acting by reflexion on the uterus; this excitement continuing to recur at monthly intervals throughout the entire period of gestation, and culminating at the eleventh recurrence, so as then to induce the parturient effect. To this it has been objected that (1) No satisfactory reasons are given for the cause of the ovarian excitement, or why the excitement which occurs at one particular period should be more successful in inducing expulsion than is that which occurs during any one of the preceding months of gestation; (2) The period of gestation, although commonly a multiple of the menstrual period, is by no means constantly so; (3) Parturient efforts take place in the uterus despite the previous removal of the lower part of the spinal cord. (With reference to this objection, see the remarks already quoted *antea* from Leishman); (4) The removal of the ovaries in the later period of gestation does not oppose any check to the parturient action.[5] And to these might be added—(5); that such an explanation would apparently fail to apply in the case of those animals for instance in which the period of ovarian excitement—as evidenced by the phenomena of "heat"—appears but once a year.

This theory has, however, won the support of many writers on the subject, several of whom are at least willing "to admit that it is probable that a presiding influence springs from the ovary at the period of the natural menstrual molimen," while they do not care to "commit themselves to the opinion that this is the sole cause" of the induction of uterine action. The present writer, coinciding in this cautious acceptance of so much of Dr. Tyler Smith's views, would yet go somewhat further; and it will be the object of the concluding portion of this paper to endeavour to show that this theory, somewhat modified and extended, and correlated with certain of those other hypotheses which have been already briefly considered, affords a scientific and consistent explanation of the occurrence of parturition.

A careful consideration of the phenomena attending ovulation, gestation, and labour, combined with a review of the facts revealed by the physiological investigation of these conditions as they occur, not in women only, but in all known female animals, leads to the conclusion that the expulsive action of the gravid uterus, occurring normally at the termination of pregnancy, cannot be referred to any one of the causes which have been enumerated, singly; but, rather, that it is a result of the joint action of several causes which, individually, take very various shares in its production; that some of these causes are operative, in a degree, more or less throughout the fruitful period of the individual's life, whilst others are of shorter duration, and are, usually, only evoked at different stages of the period of gestation; but that, once established, they each and all act and react on one another, so as to intensify the manifestations of their joint operation, until they culminate in a result which necessarily entails on all of them a period of less exalted vigour, while securing for the majority a time of complete, if only temporary, rest.

In other words, labour at term is the outcome of a physiological conspiracy, an *émeute* which is the result of several forces, of which some are always in activity, more or less, whilst others are incidentally roused and added during the progress of the events immediately preceding; the original exciting cause of the movement, and that which, in the vast majority of cases, determines the punctual incidence of the final catastrophe, being the nervous influence which springs *primarily* from the ovaries.

It will be necessary to examine the nature and method of this influence in some detail. It is admitted that, in all vertebrate animals at least, the maturation and discharge of ova from the ovary is a periodical phenomenon; although we are still in ignorance as to why the period of each recurrence should be some multiple of a week since the previous ovulation. In the human female it occurs during the childbearing period of life, and unless kept in abeyance by pregnancy or by lactation, at intervals of, usually, four weeks; and is produced, according to Pflüger, thus:—The slow continuous enlargement of the Graafian follicles causes a constant irritation of the terminations of the nerves embedded in the rigid stroma of the ovary; this irritation is at first too slight to beget an immediate reflex action; but at intervals—which are, practically, in consequence of the mode in which the producing causes act, periodical—the sum of these irritations becomes so great as to induce a reflex nervous response, which takes the form of a considerable arterial congestion of the genital organs. This suddenly increased afflux of blood produces a double effect; not only is that Graafian follicle whose development is most advanced (usually) ruptured by the increased intra-follicular pressure, but from the vessels of the congested mucous membrane hæmorrhage may take place upon the free surface of the uterus. The escape of the ovum from its follicle and the menstrual flow are both consequences of one and the same cause, viz., the pressure which the growing follicle exerts upon the terminations of the nerves contained in the ovarian stroma. It is, therefore, this pressure which causes the periodical reflex action—congestion of the genital organs.[6] In most mammals this congestion shows itself in tumefaction of the parts, with a mucous discharge of a catarrhal nature; in several this fluid becomes more or less blood-stained—especially towards the termination of the *œstrus*, when the mucous membrane of the uterus itself undergoes partial exfoliation; and in some, a considerable discharge of little else than pure blood takes place. The labours of Buffon, Cuvier, Burdach, Darwin, Ehrenberg, Raciborski, Laycock, and numerous other investigators abundantly prove that, although often disguised by various accidental and other circumstances, this congestive action tends to recur, in the unimpregnated females of the higher animals, with great regularity at intervals of two, three, four, five, or more weeks, according to the par-

[4] "Parturition, and the Principles and Practice of Obstetrics," 1849.

[5] *Vide* Carpenter. "British and Foreign Medico-Chirurgical Review," Vol. iv.

[6] Cf. Schroeder *op. cit.*, p. 10.

ticular species concerned; and that both its intensity and the regularity of its recurrence are specially favoured by those conditions of regular and sufficient feeding, warmth, and care, to which the women and domesticated animals of civilised countries are exposed.

That the uterus is, in virtue of its muscular and nervous endowments, an organ possessed—even in its unimpregnated state — of contractile power, is a proposition which will readily be admitted; indeed, we should expect no less, seeing that the uterus is, in all animals which possess it, but a specialised portion of one or both Fallopian tubes, and that it is by means of the peristaltic contraction of these canals that the ovum accomplishes a considerable portion of its journey after escaping from the ovisac. This contractile power will be augmented rather than lessened by the active congestion which attends the menstrual *nisus*; and the blood and mucus coincidently effused within its cavity, and acting as a foreign body, supplies just such a stimulus as is required to evoke contractile and expulsive action; a stimulus which must be all the more intense because, for a part of the time at least, it is acting upon a sensitive surface partially denuded of its protecting epithelium. This expulsive action of the uterus is not, usually, a noticeable feature of menstruation (although even the flow of a normal catamenia from the os uteri is somewhat remittent in character, and "the soft condition of the uterus is alternated with contraction"), because, as a rule, the blood easily drains away from the uterus almost as quickly as it is effused, and does not accumulate within the cavity in sufficient quantity to cause marked contraction of the organ. But if there be any obstacle to free escape of the blood poured out into the womb, as by marked narrowing or occlusion of the cervical canal, or by an imperforate hymen, it is well known that strong uterine contractions do occur during menstruation, evidenced by the acute and cramp-like pains which distinguish one variety of dysmenorrhœa; and this condition may result in a distension and hypertrophy of the uterus and a dilation of the Fallopian tubes analogous to the conditions with which surgeons are familiar as resulting from the obstruction caused by an enlarged prostate or an urethral stricture. Like results follow similar causes in the lower animals, and have sometimes even given rise to the impression that the beast in question was either in labour, or about to abort;[7] and recently, in the case of a patient suffering from an acute menorrhagia, the immediate effect of plugging the cervical canal was to replace a profuse but painless hæmorrhage by paroxysms of acute and expulsive uterine pain. There can be no doubt, then, that the combined effect of uterine congestion, and the effusion of blood, &c. (acting as an irritating foreign body) within the uterus, is to produce expulsive uterine action; moreover, since the primary cause acts periodically, so will the ultimate effect be periodically manifested. And hence there would arise, in time, *a tendency*, intensified by transmission and inheritance, *to periodical congestion, periodical hæmorrhage, and periodical contractions on the part of the uterus;* in support of which we might adduce those not uncommon cases of scanty or absent menstrual flow, in which, although a patulous cervical canal offers no obstruction, and in some of which, even, no blood is effused, the cramp-like hypogastric paroxysmal pains distinctive of sharp uterine contraction, occur nevertheless at the usual monthly period. Moreover, this periodical uterine action, once *the habit* was established, would retain its tendency to periodical recurrence, even though that which was its original cause, the growth of Graafian follicles, evoking reflex action, should cease or fall into abeyance. And here we find an explanation of the *periodic* uterine congestion (and contractile action) which occurs even in females whose ovaries have been removed (subsequently to the age of puberty), as well as that which is constantly noticed during pregnancy and lactation.

Symptoms of "heat" are frequently observed to occur in the domestic animals at the usual periodic intervals, even throughout the continuance of gestation; and still more frequently during lactation. And although women usually cease to menstruate whilst pregnant or suckling, this is not invariably the case; and there exist, besides, other evidences of the persistence of the rule of periodical congestion of the genital system, accompanied with the usual tendency to uterine contraction at such times; this latter being especially borne out by the well recognised fact that abortion is particularly likely to occur at those dates which represent what would be (but for the pregnancy) a menstrual period.

We are therefore justified in asserting that the normal process of ovulation (which begets, as we have seen, congestion of the whole generative apparatus) leads to effusion of fluid (mucus or blood, or both) within the uterine cavity; that this effused blood, acting as a foreign body, induces uterine contraction, and that there thus arises *a habit of* (or, at least, *a tendency to*) *periodical contraction and expulsive efforts on the part of the uterus at intervals corresponding to the catamenial periods.* We have seen, further, that not only does this *habit* of periodical uterine action persist throughout gestation; but that it receives, even during that period, the intensifying stimulus of some recurrent monthly ovarian excitement, which (in many cases at all events) appears to be not entirely quiescent.[8]

During a normal pregnancy, however, this active congestion of the generative tract leads to no effusion of blood on the free uterine surface, because (1) the blood easily finds its way from the strictly maternal to the fœtal structures. (We might, consequently, expect to find the placental and funic bruits specially marked at what would (but for the pregnancy) be catamenial periods; and such observations as the writer has had opportunity of making on this point, appear to corroborate this idea). This additional volume of blood, therefore, not being effused, does not act as a foreign body. And (2) so long as the fœtal and maternal structures continue in full vital and anatomical union, the ovum itself does not act as a foreign body. So that no additional element likely to beget reflex expulsive action comes into play. During the progress of gestation, however, other forces are called into activity. The muscular tissue of the uterus itself undergoes an enormous hypertrophy, as do also its nervous elements, and the concurrent observations of Brown-Séquard, Kehrer, and Obernier, show that the *irritability* of the uterine nerves increases in accordance with the advance of pregnancy. The distension of the uterus and the stretching of its wall, which is effected in the latter weeks by the growth of the ovum, must further tend to exalt this irritability, and thus to make reflex expulsive action more easily provoked. At the same time, the dilatation of the cervix (which means, according to one view already noticed, its highest physiological development, and makes it fully susceptible to external impressions) becomes complete; while the fœtus, driven against the internal os, partly in virtue of its own growth and the action of gravitation, and partly by incipient uterine contraction, tends to exercise that pressure-

[7] *Vide* cases cited by Dr. A. Wiltshire, "Lectures on the Comparative Physiology of Menstruation;" and *Veterinary Journal*, Vol. iii., p. 443.

[8] *E.g.* Ova have been found to be discharged from the ovary of the mare during pregnancy, by Franck; and ripe follicles noticed in the ovary of a three months pregnant woman, by Lawson Tait.

stimulus which the cervical nerve-endings are now disposed to appreciate.

Most important of all, however, amongst these ancillary stimuli, is that gradual relaxation of the anatomical connections between the ovum and the uterus which immediately precedes birth, and in which Simpson recognised the determining cause of parturition. Schroeder (*op. cit.*, p. 57), who regards the sacral nerves as being probably inhibitory, writes, "the influence of the sympathetic in the expulsion of the ovum is called forth by the irritation which the ovum exerts upon the termination of the nerves on the inner surface of the uterus; by reflex action that irritation is transformed into motor activity. Only towards the end of the tenth month does this irritation begin to be exerted, because only then, through fatty degeneration of the decidua, does the ovum become a foreign body in the uterus." The reason why this fatty degeneration should commence only in the latter weeks of pregnancy may possibly be due to the then distended condition of the uterus, and the consequent interference with the continued circulation and nutrition of the expanded mucous layers. "The organic connection which previously existed between ovum and uterus," now undergoes a process of solution by the degeneration of the intervening cellular tissue. "At all places where the degeneration has reached a certain stage, the terminations of the nerves are irritated." Gradually this continuous irritation accumulates, until—about the end of the tenth month of utero-gestation—it reaches a certain sum whose incidence then coincides with a (mensual) period of recurrent uterine contraction; at the same time the other stimuli which were lately enumerated have attained increased activity; and, thus reinforced, the first uterine contractions of this (tenth) period are more forcible than any which occurred during the preceding months of pregnancy. Owing to these contractions, "the uterine wall is partially removed from the ovum, and this separation (intensifying the action of the ovum as a foreign body) becomes a new source of irritation to the uterine nerve-fibres, and provokes, after an interval, fresh uterine contraction. The reflex action, manifested as labour-pains, becomes more and more powerful, producing further separation, and increasing the force of the train of phenomena just mentioned; until, finally, the expulsive energy thus begotten suffices to ensure the complete separation of the ovum, except at its placental attachment, and so birth of the child at about the 280th day; ultimately, and in the same way, follow separation and extrusion of the placenta.

Thus we have an explanation of the occurrence of labour at or about the end of the tenth month of utero-gestation, or, more strictly, at the time corresponding to the tenth catamenial period subsequent to conception. A distinct tendency to uterine contraction occurs at periodic intervals throughout a normal pregnancy; but only at the tenth recurrence are the uterine tissues so developed, and only then have the other stimuli become simultaneously so potent, as to make possible the occurrence of really forcible contraction; and only then are the anatomical and physiological relations between uterus and ovum such as to favour further separation between them, and thus ensure the recurrence of fresh and still more powerful contractions.

Thus far as regards a normal pregnancy carried on "to term." Let us now briefly examine to what extent such an explanation will apply to the different forms of premature expulsion of the ovum.

It is admitted that abortion and miscarriage occur almost invariably at a period[9] corresponding to a menstrual epoch. Admitting that there exists a tendency to (and probably, in some degree, an actual) uterine contraction at each recurrent catamenial period, it is not difficult to comprehend that an abnormality in the process of gestation, such as a partial separation of the ovum from the uterus due to external violence, to disease or degeneration of the fœto-maternal connections, or to injury or disease of the uterine tissue itself, should afford just the additional stimulus requisite to convert a potential uterine activity into actual contractions, contractions which, themselves furthering the separation of the ovum and thus causing it to act still more as a foreign body, would ensure the persistence and increased force of the expulsive action. The death of the embryo owing to interstitial disease or specific blood poisoning, as by syphilis, may produce similar action. In other cases, in which no definite lesion either of fœtal or maternal structures appears accountable, the cause may be found in a special nervous sensitiveness which permits an impression, transmitted with unusual force by some other channel and originating, *e.g.*, in the breast, the stomach, the vagina, the ovaries, or the intestine, to act as the additional stimulus required. The expulsive action which follows the introduction of a foreign body, as an elastic catheter for example, between the membranes and the uterine wall, is thus also easily explained; especially as this manœuvre is most successful, and is, indeed, for that reason, usually practised at what would be a menstrual period. Similarly, rupture of the membranes, followed by escape of fluid and consequent shrinkage of the bulk of the uterus owing to its natural tonicity, ensures some separation of the anatomical connections between ovum and womb; it also brings the (more or less sensitive) uterine wall into more direct contact with the firm and irregular outline of the child, and the latter can hardly be without its effect in inducing reflex contraction. It is possible that violent fœtal movements may even be occasionally instrumental in determining or in accelerating the on-coming of labour; and it has been noted that the presence of a large amount of liquor amnii, which tends to minimise the action now under consideration, is a frequent accompaniment of prolonged gestation. That causes (such as external violence, use of instruments, &c.) which would almost certainly provoke labour at the termination of the period of normal pregnancy, should nevertheless so frequently fail to do so in the earlier months, is probably due to the fact, already noted, that the irritability of the uterine nerves progressively increases with the advance of pregnancy; and this, while helping to explain the regular setting in of labour, will also serve to account for the not infrequent retardation of the pains in cases where the separation of the ovum has been premature.

In cases of extra-uterine gestation the uterus itself does not usually undergo, to any marked extent, the development—anatomical and physiological—which attends a normal pregnancy. Especially when the pregnancy is ovarian, abdominal, or truly tubal, the increase in bulk of the uterus and the formation of a decidua follow but in a slight degree, and the process usually soon subsides. The rupture of a tubal or of an ovarian fœtal cyst seems to be determined mainly by the amount of distension which it has sustained, combined with accidental causes, such as straining or external violence, and is not usually correlated with true and distinct uterine contraction. Yet it is not astonishing that the irritation produced in the generative nervous circuit, at the site of the extra-uterine implantation of the ovum, should be able to evoke reflex contractile action; this is more noticeable in cases of abdominal pregnancy which are prolonged to the eighth and ninth month, and especially so in cases of interstitial or utero-tubal gestation, in which, from its

[9] "Taking a large number of cases of abortion as a basis of calculation, I find that it much more frequently happens at what would otherwise be a catamenial period." MEADOWS' "Manual of Midwifery."

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immediate proximity to the site of the vital processes concerned, uterine development and irritability are much more directly implicated.

In connection with this subject generally, we should not overlook the fact that, when once, from whatever cause or combination of causes, there had been established in the females of the human species, the habit of parturition at or about the termination of the tenth month of pregnancy, this *habit* would be intensified and fixed by inheritance and transmission through successive generations; and that thence there would arise a *law* of exceptionally powerful uterine contractions occurring at this particular epoch of gestation.

It does not appear a fatal objection to this theory that the date of delivery but seldom corresponds exactly to the 280th day of gestation; indeed, all things considered, it would be somewhat remarkable if this were the case; and for the following reasons. The period which intervenes between the commencement of successive catamenia is not in all women exactly 28 days. Putting aside the occasional abnormalities of "regular" menstruation every 2, 3, or 6 weeks, it varies in most cases from about 26 to 33 days; and often, in the same woman, varies at different times by two or three days, without her "regularity" being in any other way impeached. Amongst less civilised people the menstrual flow is apt to occur at even longer and less certain intervals. Again, the duration of the flow varies considerably in different cases, and even in the same individual upon different occasions. Brierre de Boismont thus states its duration in days, the number of days thus occupied being arranged in order of frequency:—8, 3, 4, 2, 5, 1, 6, 10, 7. When the catamenial nisus occurs during pregnancy, we do not know what effect the altered conditions of the uterine circulation may produce upon the *duration* of the period, nor how far (if at all) a possible lessening of its duration would induce an earlier recurrence of the period next in succession.

There can be no doubt, however, as to the generally tetra-hebdomadal character of the ovarian *nisus* in the human female; and, allowing for the slight variations in time, due to one or more of the causes just alluded to, we find no difficulty in the usual onset of parturition at some time between the 270th and the 290th day; bearing in mind also, that the prime factor in the process (the habit of recurrent uterine congestion and contraction) requires for its effectual display the co-operation of other causes which (owing to the *modus operandi* of their evolution) can exert an active and simultaneous effect only at that period of pregnancy which practically corresponds to this particular date. Observations upon the lower animals corroborate the idea that the date of parturition corresponds to a period of ovarian excitement; thus, *e.g.*, it is asserted that mares will breed readily if put to the horse within a few days of their foal's birth.

Finally, we may briefly summarise our conclusions thus, dividing the causes of labour into (1) the *Primary*, which is the habit of periodic (mensual) uterine contraction; (2) the *Obcidental* (*i.e.*, causes which, being accessory, arise naturally in the course of, and are necessarily evoked by, the progress of the pregnancy itself); and (3) the *Accidental*, which include *e.g.*, external violence, toxic agents, instrumental interference, emotional effects, and the like.

1. Ovulation begets periodical *congestion* of the generative organs. (*a*)

2. *a* produces rupture of vessels on the uterine surface, giving rise to *effusion of blood*. (*b*)

3. Effused blood, &c., acting as a foreign body, tends to produce reflex *uterine contractions*. (*c*) (This expulsive action is not usually noticeable in ordinary menstruation for reasons previously given).

4. *a*, *b*, and *c*, thus induce *habit of* periodic contraction and expulsive effort on the part of the uterus, at intervals corresponding to the catamenial periods. (*d*)

5. During pregnancy this *habit* (*d*) continues in force; but, owing to the character of the fœto-maternal relations, no additional element likely to beget strong reflex expulsive action comes into play, until towards the 40th week. (*e*)

6. Towards the end of the tenth month of gestation there occurs (owing to the pressure consequent on distension) *fatty degeneration of the connections between ovum and uterus*. (*f*)

7. In consequence of *f*, there arises a *further stimulus* to contractile action by local *irritation of* the uterine nerve-endings. (*g*)

8. Hence, when the tendency to mensual uterine contraction recurs for the tenth time, it is reinforced by the stimulus *g*; as well as by the other stimuli which are by this time also more or less effective. Whence ensue, at this period, more vigorous contractions, leading to *further separation between ovum and uterus*. (*h*)

9. *h* increases the irritation of *g*; thus leading again to recurrence of *h*, and so to a constant repetition of this train of phenomena, until the expulsive force thus roused suffices to ensure complete separation of the ovum and its subsequent extrusion.

10. The mere *habit* (even apart from the persistence of its original exciting cause) of recurrent (mensual) uterine activity, as well as the resulting tendency to expulsion of the ovum at the tenth mensual period of gestation, would become gradually fixed, and so exalted into *physiologieal laws*, by transmission and inheritance through numerous successive generations.

While this view of the subject, thus imperfectly sketched, can hardly fail to increase the interest with which we regard the problem of the causation of labour, it has also a practical value by bringing before us the numerous array of factors engaged in producing that result, and by showing how the normal progress of pregnancy may be jeopardised by the too early or too vigorous incidence of any one or more of them. It claims also to afford an explanation of the process in harmony with the great laws of correlation and of continuity whose operations are so widely evidenced throughout the world.

[Note.—Pflüger's explanation of the origin, rise, and operation of the ovarian nisus is not universally accepted; notably, Mr. Lawson Tait holds the Fallopian tubes responsible for the occurrence of the phenomena of menstruation. The position taken up in the preceding paper is not invalidated by regarding the tubes as the chief exponents of a recurrent condition which most observers are still disposed to connect in some way with the processes of ovulation; the element of *periodicity*, however originated and maintained, still remains as the prime factor in the chain of operations which have been here considered.]

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.
President of the Epidemiological Society of London.

(Continued from page 429.)

Bronchocele

Is more or less prevalent chiefly along the sub-Himalayan ranges, from Assam, in the east, to Ladak, in the west. Solitary cases are not unfrequently met with in Lower Bengal. My own experience in that part of India confirms that of Mr. H. M. Greenhow, who wrote—"I have not seen a case of goitre among Europeans in India." In 1881 one European soldier's

wife was admitted for goitre in all India. In her the disease probably originated, as it did in Ann Boleyn, at home.

In a report on the Medical Topography of Tirhoot,[39] Kennetli Mackinnon observes that "European adults are very seldom attacked with goitre, children very frequently, but infants never." The Editor of the journal remarks in a footnote, "a child who arrived in Calcutta about 12 years since still has it as much as ever."

A late head of the Bengal Medical Department, Mr. John M'Clelland, who paid great attention to the subject of Indian goitre in its relation to locality and soil, denied[40] that the neighbourhood of Indian mountains is influential in the production of bronchocele. He said—"The districts from Rungpore to Goruckpore extend along the borders of the Tarai, and this last extends along the foot of the Nepaul mountains ; and so, from an association of ideas, the goitre has been here generally supposed to bear some immediate local connection with the mountains. But such is not the case, for it is found in open cultivated districts of the plains sixty miles from the mountains. In other places it may extend much closer to them, but never so as to" [lead us to] "suppose that it can be due to their influence merely as hills."

So Kenneth Mackinnon asked—"Why is goitre confined to mountainous valleys or plains lying in the vicinity of great mountainous chains? I make the latter observation because the disease is as common, I believe, in the villages of Tirhoot, lying hundreds of miles from the Himalaya, as in any part of the world."

In Indian localities, where goitre is most prevalent, it affects the lower animals. Mr. McClelland says that, in these districts, dogs and cats are often affected with goitre. Dr. Coates says that in the Chumparun District, goats and sheep, dogs and horses suffer from the disease.

Mr. Bramley, the first Principal of the Calcutta Medical College, wrote that, in Nepaul,—"on one occasion a goat brought forth a kid with a goitre as large as its head. Puppies of a month old, bred from English dogs, are very frequently affected by it, as are also lambs."[41]

Writing in 1883,[42] Dr. Archibald Campbell said that "congenital goitre is not known in Nepaul to occur among the human race." Mr. McClelland wrote (page 107) that there is no authentic instance of congenital goitre, *i.e.*, in a child. Mr. Bramley, however, observed[43] that children are sometimes born with goitre. Mr. Baillie Fraser made the same observation in his work on the Himalayas. Mr. Greenhow confirms this from his own observation. He met many persons who had suffered from the disease from their birth.

In 1867 Dr. Colles received at the Calcutta Medical College Museum a "bronchocele from a newly born infant," contributed by Mr. G. D. McReddie, civil surgeon, Hurdui, Oudh.[44] It appears very desirable that a full examination of the entire system of muscles of respiration should be made in one or two of these still-born children.

With regard to goats and sheep, Dr. Campbell found from many observations "(1) Goats and sheep brought from the North-Western Provinces of India, where goitre is unknown (?) to Nepaul and Tirhoot, where it is very common, produce goitred young, though they were pregnant previous to arriving in the infected districts.

"(2) A goat or sheep unaffected, and in perfect health, produces in Nepaul goitred offspring.

"(3) A female parent having the disease scarcely ever produces other than diseased young ones.

"(4) Of 23 lambs and kids born with bronchocele all died within a few minutes after birth, with the exception of a lamb in which 'one gland only was enlarged ;' when it was six weeks old the disease had vanished.

"(5) The tumours in the offspring of goitred parents are invariably larger than in that of healthy ones.

"(6) The death of the affected young ones does not depend on the size of the goitre."

The vulgar say "the creatures die because they cannot suck." "Possibly they could not," remarked Dr. Campbell, "but they are very rarely allowed to try. The common course being this—the creature is born, is feeble and *unable to raise its head*, gasps half-a-dozen times for breath, and dies."

He found that "the muscles arising from the sternum to be inserted into the os hyoides and thyroid cartilages are nearly obliterated by the pressure of the tumours." A further examination of these remarkable cases, by comparative anatomists, is a desideratum. Such enquiry should also include a full investigation of the condition of the cranial bones of cretins and goitred animals.

Speaking of goitre as observed in Kemaon, Mr. McClelland thinks that the tumour does not always originate in the thyroid gland, and states that, in a third of the cases which he saw, it appeared to commence with a fulness of the base of the neck, on one or both sides over the middle of the clavicle. Thence the swellings ascend, and, in a longer or shorter time, reach the situation of the thyroid gland, when both tumours unite. I do not find that any other observer has noticed this ; but Dr. Hilton Fagge held that when the thyroid is absent in cretins, fatty tumours will almost invariably be found in the posterior triangles of the neck.

With regard to the *Prevalence* and *Localisation* of bronchocele in India, the returns for 1881 show 59 admissions for bronchocele in the Sepoy force of the Bengal army, none among the native troops of the Madras and Bombay Presidencies. Among the prisoners there were only 2 cases in Bengal and 7 in Madras.[45] Mr. John Leslie[46] saw a good many cases at Gowhattee, in Assam, but in none was the enlargement of the gland very great.

In a tour which I made throughout Assam, in 1865, I saw nothing of goitre, except at one very small village on the plain country between Tezpore and Nowgong. I was surprised to see that nearly the whole of a large crowd of young children who ran out to see my elephant, had goitre.

Dr Mouat says[47] that "in the districts about *Motiharee, Segowlee, Bethiah, Bhagolia, and on to Goruckpore*, indeed all along the line of the Terai, goitre is so prevalent that it can scarcely be an over-estimate to state that, in many localities, one individual in ten is afflicted. Dr. Coates has stated that, 90 to 100 cases of goitre resorted daily to the *Chumparun* dispensary when he was civil surgeon. Writing in 1859, Dr. John Brown[48] observed that in the valley of *Nepaul* (where Dr. Campbell made his observations on goats and sheep, cited above) and its vicinity, goitre prevailed to a large extent. (See Cretinism). Dr. D. Wright

[39] FINCH'S *Indian Journal of Medical and Physical Sciences*, vol. ii., p. 33.

[40] "Sketch of the Medical Topography, Climate and Soil of Bengal and the N.W. Provinces," p. 116.

[41] As cited by GREENHOW.

[42] "Bengal Medical and Physical Transactions," vol. vii., part 1, p. 1. "Observations on the Congenital Goitre in Animals, as it occurs in Nipal."

[43] "Calcutta Medical and Physical Transactions," vol. vi., p. 181.

[44] *Indian Medical Gazette*, vol. ii., p. 244.

[45] A prisoner would only be admitted to hospital for goitre under exceptional circumstances.

[46] A Sketch of the Medical Topography of Gowhattee. "Calcutta Medical and Physical Transactions," vol. vi., p. 56.

[47] "Indian Annals of Medical Science," No. viii., p. 437.

[48] "Indian Annals of Medical Science," No. xi., p. 176.

observed,[49] in the same locality, that the disease which supplies most patients to the dispensary is goitre. "The door is, in fact, often besieged by crowds of applicants for "*gullê-ka-dawa*" (medicine for the throat). "Goitre is most common among the women, but is also pretty frequently met with in males, and in certain districts of the valley, where it is most abundant, the very dogs are affected by it." My friend Mr. Greenhow's observations on goitre[50] were confined to the Trans-Gogra portion of *Oude*, and more especially to the neighbourhood of *Secrora*. At that station he easily brought together 300 cases; and from his careful examination of these, he draws many inferences which will be found of great value by all who may investigate the subject of bronchocele. He notes that "at Hissampore, a village on the Surjoo, about 12 miles distant from Secrora, dogs and other animals are affected with it."

My friend Dr. Cayley observed[51] that he had travelled through the greater part of Ladak, and had seen very few goitres, and those very small ones; and he saw no cretins, and hardly an idiot; although, in the Lower Himalayan ranges, as at Kangra, Kullu, and about Simla, goitre is very prevalent, and cretins not uncommon.

It is stated in the "Madras Topographical Reports"[52] that, in the highlands both of Siam and Ava, bronchocele is frequent, but the enlarged gland does not attain any great size, nor is it attended by cretinism.

Dr. Waring states, in his "Medical Notes on the Burmese," that, amongst some of the tribes of Karens, in the interior from Mergui, bronchocele is very common, but is confined to small communities inhabiting certain districts.

A full report upon the morbid anatomy of Indian goitres, in man and animals, would be a very desirable addition to pathology.

A great deal has been written by McClelland,[53] Professor Liston, Greenhow, and other Indian observers, with regard to the *Geology of the localities in which* goitre prevails. The whole of the interesting results deserve to be carefully weighed by those who may desire to investigate this important subject particularly in the localities themselves. McClelland and Liston are agreed in the following observations upon localities in the Goruckpore district: "Goitre or *geega*, as it is called, is very prevalent where the soil is white, damp, and sandy; such lands being called *bhat*, as not requiring irrigation for the dry weather crops. It is unknown in *bangar* lands, where the soil is reddish, sandy, and dry, so as to require irrigation in the dry weather. There is, however, no remarkable difference of level in the two kinds of land generally. All the villages on the *bhat* lands are not equally affected; the inhabitants of some being quite exempt, while the inhabitants of others are affected to the extent of 10 per cent. of their population; women being more subject to the disease than men." Professor Liston observed that the *bhat* is a soil retentive of moisture, that a very notable proportion of it is calcareous matter. "The *bangar* country," he says, "is more congenial to the human constitution, and to horses and dogs than *bhat* lands are. The inhabitants are better grown, stronger, fairer, handsomer, and the children more playful in the former than in the latter."

I read, in Mr. Pugin Thornton's article "Goitre," in Quain's Dictionary, that "In the Indian Punjaub, where goitre affects 60 per cent. of the population "[?]", 59 grains of lime have been found in a gallon of water, 10 grains being an undesirable proportion." (Professor Frankland.)

The *Treatment* of goitre by the inunction of biniodide of mercury ointment, which I believe originated in India, met with so much success there, and has for so long a time been noticed in the medical literature of Europe, that it appears surprising that we should have heard so much of late years of the very serious operation of thyroidectomy.

Writing in 1857, Dr. Mouat stated that, in 1854–55, Captain Cunningham, second in command 12th Irregular Cavalry, began to employ the biniodide ointment. I do not find it mentioned who suggested this plan of treatment to Captain Cunningham. He appears to have been speedily satisfied of the efficacy of this treatment, as we are told, in Dr. Mouat's paper cited above, that, in the first winter, he must have treated some 25,000 cases of goitre, having seen as many as 500 at his house in one day. Dr. Mouat considered that, in about three years, not less than 60,000 persons had been treated.

The observations made by Dr. Coates in 1881, already cited, are the latest on this subject that I have seen. He said that the whole of his very numerous cases at Chumparun were treated with an ointment composed of biniodide of mercury ʒ ix. to lbs. iij. of lard. His experience was that one-third recovered completely, in one third the size of the tumour was reduced, and in one third no change took place. He considered it of importance to expose the part to the full rays of the sun during and after the application of the ointment.

I had an opportunity of witnessing that issue which is threatened in cases of unchecked bronchocele. An old native woman was brought into my ward in a very low state. She was attacked with symptoms of suffocation and died unrelieved, as there was no room to allow us to open trachea or larynx, and as it was clear that she could not have survived an attempt to remove the tumour. I found that the air-passage was surrounded and pressed upon by the tumour as it would be if grasped in front by the palm of the hand and embraced behind by the thumb and fingers joined, save that the tumour was bulkier posteriorly.

(*To be continued.*)

A CASE OF DETACHMENT OF THE RETINA WITH GLAUCOMATOUS EXCAVATION OF THE OPTIC NERVE CURED BY WOLFE'S OPERATION.

By Dr. HENRI CAMPART.

Madame B., aged 57, came to the Clinique Nationale Ophthalmologique des Quinze Vingt, July 12th, 1884. She stated that in the previous April she had frequently noticed shadows floating before her right eye. Every object that she looked at attentively appeared to her surrounded by coloured rings, especially if the objects were in a bright light. She had never been myopic, and three months' previously the sight of her right eye was quite as good as that of her left.

About two months' ago the patient on getting up one morning found that the sight of the right eye had become considerably impaired, and that in a very rapid manner. Objects appeared to her curved, and she could not distinguish their lower half. The eye gave her no pain. She felt as usual a sense of weariness on using the eyes, but there was no spontaneous pain. Dr. Galezowski, when consulted some days later as to this anomaly of vision, found a detachment of the retina of the right eye. He ordered cold compresses to the eye, a blister and leeches to the right temple, and a collyrium of sulphate of eserine (·05 centigrammes to 10 grammes of distilled water). Having received no

[49] *Indian Medical Gazette*, vol. ii., p. 195.
[50] "Indian Annals of Medical Science," No. xii., p. 435.
[51] Notes on Ladak. *Indian Medical Gazette*, vol. iii., p. 5.
[52] "Tenasserim Provinces," p. 175.
[53] McClelland, *op. cit.* p. 112.

benefit from this treatment, the patient presented herself at the Quinze Vingt on the date above-mentioned. She was a stout plethoric woman, and stated she had long suffered from asthma, attacks of which occurred several times a-week. Her occupation was that of a laundress, and she had evidently been much overworked. Dr. Fieuzal diagnosed the case as detachment of the retina of the right eye, with glaucomatous excavation of the optic nerve. Visual acuteness: Right eye, she could count the fingers at 58 inches' distance. Left eye, V=$\frac{2}{3}$ of Wecker's types.

Treatment.—A solution of sulphate of atropine (1 in 200) was dropped into the right eye, and sulphate of eserine into the left. Iodide of potassium was also prescribed, to be taken before each meal. The sight was gradually getting worse, she could see no type, and she could distinguish only the lower half of objects held before her. It was then proposed to her that she should undergo an operation; she assented, and the operation was fixed for Oct. 7th, 1884.

With the authority of Dr. Fieuzal, chief physician to the hospital, an anæsthetic was given, and Dr. Wolfe performed paracentesis of the sclerotic. The lids were kept widely open and fixed by means of a blepharostat, and a small opening having been made in the conjunctiva, the sclerotic was punctured on its outer side, between and posterior to the insertion of the external and inferior rectus. A brownish limpid fluid escaped from the wound. When it had ceased flowing, the instrument was removed, and without any sutures having been introduced in the conjunctival wound, the eye was closed, and an agglutinative dressing applied to keep it so. The patient was ordered absolute rest; she took every morning a glass of aperient water which gave her two motions daily.

On October 10th the dressing was removed, and as soon as she opened her eye, the patient was astonished at the result of the operation. She could count the fingers, could see the whole length of them, and distinguish between two different coins of the same colour.

On October 12th the dressing was again removed, and it was found that progress continued to be made. The patient could read at a distance of two metres $\frac{1}{3}$ of Wecker's types with the eye that had been operated on, and she could easily tell the time on a watch.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

SUPPURATION IN MEDIASTINAL GLANDS, OPENING EXTERNALLY — LOCULATED EMPYEMA—AUTOPSY.

(Under the care of Dr. EUSTACE SMITH.)

(For these notes we are indebted to Mr. OWEN LANKESTER.)

GEORGE C., aged 18 months, was admitted into the hospital on July 7th. There was no history of phthisis in his family. The child had appeared pretty healthy up to the commencement of his present illness, three months ago. During this period the child has wasted. He has been sick after his food, and has not enjoyed it for some time past. He sweats at night; occasionally he has had twitchings in his face, but no general convulsions. There is no œdema of his feet or legs. The urine has a sp. gr. 1,020, and does not contain albumen.

July 11th.—Dr. Smith dictated the following note: The jugular veins are very full, and the superficial veins in front of the chest and abdomen are more visible than usual. The percussion note is high pitched over the upper part of the sternum. There is a venous hum on ausculting this part with the head thrown back. There is complete dulness over the lower half of the right back, with great resistance, as far back as the posterior axillary line; the respiration is high pitched and bronchial with large clicks on inspiration. The intercostal spaces sink in deeply on both sides; the spine is quite straight. The heart's apex is behind the fifth rib, inside the nipple line. There is a spasmodic cough, and the breathing is short. There is no retraction of the base of the chest in inspiration; no lividity of face. The eyelids and the lips are not congested.

July 18th.—The following note was made: The child coughs very little and not at all spasmodically. The fulness of the jugular veins continues. The percussion note is very high pitched over the upper half of the right front to the distance of one finger's breadth beyond the edge of the sternum, but respiratory sounds are normal. There is the same dulness over the lower half of the right back, where respiration is high pitched and blowing; there is no increase of vocal resonance. The intercostal spaces deepen on inspiration on the two sides alike. There is no difference in the respiratory movements of the right and left chest; the face is not livid, breathing is not short. The child is taking food well.

July 22nd.—The percussion note is tubular, with very great resistance over the lower half of the right back reaching to the posterior axillary line; all over resonance is somewhat impaired. Over the dull area the respiratory sounds are harsh, and accompanied with coarse bubbling rhonchi on inspiration as well as expiration. The vocal resonance is increased. The face is pale, and there is some lividity of the nose and mouth. In the second interspace, just to the right of the sternum, there is a slight swelling, and also a small globular fluctuating swelling in the episternal notch. A puncture was made, but nothing was evacuated; hence they were considered as softened and enlarged glands.

July 25th.—The above-mentioned swellings having been poulticed discharged a little pus. The superficial veins still much distended. The dulness at the right base posteriorly remains much as when last noted; respiration is very loud and harsh, with large bubbling rhonchus, and some increase of vocal resonance. There is faint vocal fremitus on both sides. The right side appears to move rather less than the left; the intercostal spaces sink in equally.

July 29th.—There is now a soft fluctuating swelling in the first intercostal space to the right of the sternum Dulness over the whole right back; respiration very loud and bronchial with fine, rather metallic, clicking sounds on inspiration. Vocal fremitus is increased.

August 7th.—The dulness over the right back is absolute below a transverse line drawn from the angle of the scapula.

August 19th.—The abscess in the episternal notch has much enlarged. Both it and the lower one discharge slightly, but continuously; they are dressed with iodoform. The child gets thinner and weaker, and refuses food. An exploratory syringe was put in in four places over the dull area, but without striking pus.

August 22nd.—The physical signs have remained about the same. The patient, having gradually become exhausted, died in the evening.

Autopsy.—The openings in chest wall were found to communicate with enlarged, tubercular, suppurating mediastinal glands. The right pleura was adherent to the ribs all over. The right lung was adherent to sternum above and in front; it was also adherent to

ribs behind. At the right base behind, where dulness was absolute, there was a loculated empyema. The right lung itself was quite solid, and full of tubercular material. Pleuræ much thickened. Small masses of tubercle were disseminated throughout the left lung. The heart and pericardium were normal. The spleen, intestines, mesenteric glands, and peritonæum were full of tubercle; the intestines were studded with patches of tubercular ulceration. Liver and kidneys natural.

Remarks.—(By Dr. Eustace Smith.) In this case the child's illness appears to have begun with an attack of pleurisy. The acute tuberculosis and suppuration of glands seem to have followed as a consequence of the purulent collection in the chest. It will be observed that the child did not come of a consumptive family. Some authorities hold that a tubercular predisposition is essential to the development of tuberculosis, but cases such as the above seem to indicate that if this be the rule, it is at any rate a rule not without its exceptions. The practical inference to be drawn is that purulent matter should not be allowed to remain in the body a day after its presence has been ascertained. In this child, although the physical signs pointed to fluid in the chest, exploratory punctures failed to give evidence of its presence. In many cases where this disappointment is met with the failure is due to thickness of the pus, and its admixture with flakes and strings of jelly-like lymph.

PURULENT PERICARDITIS AND EMPYEMA —AUTOPSY.

(Under the care of Dr. EUSTACE SMITH.)

Frank P., aged 2 years 5 months, was admitted into the hospital on September 2nd. The child's family history is fairly good, there is no special hereditary tendency to disease.

Previous History.—The child has never had any previous illness, and has always appeared strong and hearty.

Present Illness.—For the past six weeks his mother says he has been languid, refusing to play, and has lost his appetite and is getting thinner. He has been feverish also and has sweated a good deal, especially at night. He has a frequent cough, but no expectoration.

On Admission, the child is pale and his face looks puffy, but there is no œdema; his temperature is found to be normal, but his respirations are 48, and his pulse 140; the pulse is regular in rhythm but not in force. The ribs are rather beaded; the epiphyses at the wrist are large, but the fontanelle is quite closed, and his legs are straight. He does not appear to be thirsty. The urine is acid; its density is 1·030, and it contains no albumen. On percussing the chest, there is some increased resistance at the right base behind, which is dull; this does not extend into the axillary region; elsewhere percussion appears normal, as do the breath sounds. The heart's apex beats in the fifth interspace, a quarter of an inch within the nipple line; the sounds are healthy. The liver edge is three fingers' breadth below the margin of the ribs; the margin is sharp; substance firm, and appears to be rather tender when pressed. The spleen is normal. The whole abdomen is more tender than normal, but it is not distended or tense.

September 4th.—The boy has by this time become much worse; his temperature is now 102° F., his respirations 43, and his pulse, which is very full, 43. He looks ill and complains of thirst.

September 9th.—There is dulness, with increased resistance, over the right back from the spine of the scapula downwards, extending also into the lower axillary region. The respiration over this area is blowing in character, and accompanied with coarse bubbling rhonchus. Vocal resonance is bronchophonic. Over the lower half of the left chest, front, back and axillary regions, respiration is bronchial with some rhonchus. Stomach is distended, and gives metallic resonance to laryngeal sounds. The temperature has remained high, varying from 101° to 102° F.

September 12th.—The legs and feet are very œdematous; no urine can be obtained; it is all passed under him into bed. Percussion resonance is now much impaired over the whole of both backs, chiefly however at the bases; respiration is high pitched and blowing on both sides with occasional clicks and rhonchus. There is complete dulness over the whole left front; this dulness passes just a little beyond the middle line. Respiration is very high pitched, and bronchial in character. There is superficial crackling at the base. There is no dulness over the right front. The heart sounds are weak. There is no pericardial friction. The apex beat is behind the fifth rib in the nipple line, and very feeble. The liver is as last noted. The abdomen is rather more distended, with some increase of tension on the right side. The child has a distressed expression; he is very pale; the œdema of legs and feet is still present. The temperature remains high.

September 14th.—He died this morning.

Autopsy.—On opening the chest, the pleura on both sides were found adherent to the chest wall. Both lungs were congested and there was some slight consolidation at the base of the right. There was a loculated empyema on the left side occupying the left front from below as high as the transverse nipple line. The pericardium contained about half a pint of pus; its interior, and the corresponding surface of the heart were rough and shaggy; heart otherwise normal. A small patch of lymph was found in the abdomen on the right side. The kidneys appeared normal. The liver was large and fatty.

Remarks.—(By Dr. Eustace Smith.) Purulent inflammation of the pericardium is not a very uncommon disease in the child. In this instance the chief interest arises from the age of the patient, who was little over two years old. In most of the cases of purulent pericarditis in young persons which have come under my notice the pericardial lesion has been secondary to a pleurisy. When the suppurative process begins around the heart the child looks haggard and pale. He has irregular fever, and often complains of discomfort in the chest. The pericardial friction disappears early, but the præcordial dulness persists. After a time œdema of the legs is noticed, and the end is then not far off.

In the present case the physical signs arising from the inflammation in the pericardium were masked by the presence of pus in the left pleura; but œdema without albuminuria is a rare consequence of empyema in the child, while it is a constant symptom when the purulent collection occupies the pericardium. Its presence, therefore, in any case of empyema should at once direct attention to the heart. It will be noted that extension of the inflammation was taking place to the peritonæum, and that a limited peritonitis had been set up. This, if the life of the child had been prolonged, would, no doubt, have become more generalised. In early life, when inflammation extends from the chest to the abdomen, the symptoms induced by the complication are often curiously insignificant and few. In this case the child made no complaint of pain nor did he show any sign of uneasiness when pressure was made upon the abdomen. The only symptoms of the peritonæal lesion were the slight swelling of the belly and the appreciable increase of tension of the parieties over the site of the inflammation.

Medical Times and Gazette.

SATURDAY, OCTOBER 18, 1884.

THE General Medical Council finished its Session on Thursday, after sitting for nine days. The business done may be summed up very briefly. The Council sanctioned the proposed co-operation of the two English Royal Colleges; it referred the subject of professional examinations to the Branch Councils, to consider and report thereon; and it drew up a new scheme of preliminary examination. It will probably meet again shortly after Easter. The President in his valedictory remarks foreshadowed the possibility of the Council's having in future two sessions in every year. He expressed his surprise that amidst all the criticisms upon their conduct, which were no doubt so salutary for them, it had never been pointed out that they were practically *in absentiâ* for eleven months in the year. If the President had put himself in a medical journalist's place, and realised what the meeting of the Council means to him—the strain on space and effort that it involves, without any very obvious advantage or return—he would have seen good reason to fear that the luckless journalist who should propose a second Session of Council would have been drummed out of his regiment in disgrace.

THE closing portion of the discussion on the question of the co-operation of the Colleges of Physicians and Surgeons took place so near our time of going to press last week that we were unable to do more than make the bare announcement of the fact that the sanction of the Council had been given to the scheme. Some analysis of the voting on the several amendments will probably prove of interest to our readers. On Dr. Quain's amendment 13 were against, 5 for, and 6 did not vote. Dr. Lyons' amendment that the scheme be referred back with a view to the Society of Apothecaries being included was rejected by 16 to 4, 4 abstaining from voting. And the motion itself was carried by 14 voting for, and none against it, 10 refusing to vote. Whilst believing that a step in the right direction has been taken by the union of the two corporations, it is impossible to close our eyes to the fact that these bodies must get further powers than those at present given them by their charters if the scheme is not to be practically set at naught. As we understand the matter, it is quite conceivable that a candidate who has presented himself for the final examination, and been rejected in Surgery, but passed in the other subjects, may at a subsequent period present himself at the College of Physicians armed with a licence in Surgery obtained elsewhere in the United Kingdom, and demand that their licence in Medicine be no longer withheld from him. Or the same thing might apply to a man who had passed the surgical portion of the examination, but failed in Medicine. The examination will never take the high position which it is fully entitled to until the two Colleges resolve to recognise the examinations of no outside body at all. We believe that they are quite strong enough to do this, and when they have done it, and not till then, shall we be able to reap the full benefit of the very important step which has received the imprimatur of the Council.

LAST week it was our unpleasant duty to complain that Professor Macnamara had been unnecessarily taking up the valuable time of the Council with an imaginary grievance, and we regret that we should have again to make the same charge. On Friday last nearly an hour was consumed in discussing what one of his fellow countrymen very justly described as a storm in a teapot, in respect of an incident which English ideas of etiquette would certainly never have allowed to come up at all. Professor Macnamara had resigned his seat on the Pharmacopœia Committee chiefly, as we understand it, because he could not get his own way, and prevail upon the rest of the Committee to adjourn at 6 o'clock on the occasion of a special meeting. There were other reasons. A pet preparation of his had been treated with scant courtesy by one of the Editors of the Pharmacopœia, and refused admission on what the Professor considered insufficient grounds. This part of his complaint was completely answered, it seems to us, in the fact that he had not availed himself of the opportunity afforded him of giving due notice of any suggestions. As to the other part of his grievance, for most people it would have been enough that a majority were in favour of finishing the discussion at the one sitting and avoiding the necessity of an adjournment, and they would have remained with a good grace or have asked permission to withdraw, and trusted their colleagues to do any business that remained in a proper and loyal spirit.

SELDOM, we believe, has the Council entered upon a more misguided or mischievous course than it did on Monday, when it undertook to resolve itself into a Committee of the whole Council to consider the subject of preliminary education. The members who before had been most eloquent on the subject of supervising the professional examinations by means of experts, were now most strongly convinced of the superior fitness of the Council, as compared with anybody else, to deal with the subject of preliminary education. And so they went into Committee, and at the end of the first four hours they had succeeded in agreeing that so far as English was concerned they would leave matters as they stand. At this point Mr. Simon considered that they had accomplished a great deal, Sir Henry Pitman avowing that they had done nothing. Both are in some degree right, they had done a good deal in that they had left well alone, and had not done any harm, and they had done nothing inasmuch as they were exactly in the same state as if they had not discussed the matter at all. What possible good can result from such a discussion as this? Are the Council prepared to enforce their recommendations? Supposing that they had decided that dictation should form a definite part of the preliminary examination, do they suppose that they could have got any of the general educational bodies to insert it into their list of subjects required, if it was not already there? Fancy

dictation being asked for in Smalls at Oxford or the Little-Go at Cambridge. The thing is preposterous. If the Council are really of opinion that the standard of their preliminary examination is too low at present, as they certainly seem to agree, by all means let it be raised, but surely the way is to strike out from the list of bodies those whose examinations are not up to what they consider ought to be the standard. If dictation is really necessary would it not be as well to have an ante-preliminary examination in which the alphabet and the multiplication table up to six times six formed the *pièces de résistance ?*

One of the most senseless things done this session was the insisting on Wednesday that Prof. Humphry should put his motion as to leaving out the optional subjects. The feeling of the members on the subject had been amply expressed in the course of the preceding debate, by the references to Greek and modern languages, and Prof. Humphry, recognising this feeling, made a most laudable attempt to save the time of the Council by not proposing it. The opposition with which this suggestion of his was met showed the sort of spirit that actuates many of the Council, for no fresh arguments were used in favour of the optional subjects beyond those already adduced, in deference to which Prof. Humphry had suggested the course which he was not allowed to follow. We do not quarrel with the President for his ruling—under the circumstances he could not have done otherwise—but forty-five minutes were frittered away for reasons best known to the majority, certainly not even for airing their own views on the subject.

The decision of the Council on Thursday not to make any exception in favour of the Universities in respect of elementary mechanics was another piece of absurdity. Nothing can be more futile than for a body to pass resolutions they cannot enforce, and for four and twenty doctors, however distinguished in their own line, to presume to dictate to the Universities on a matter of general education can have but one effect, viz., to bring their own body into ridicule. Earlier in the afternoon they completely upset the work of the two previous days in respect of raising the standard of preliminary education, by resolving that candidates should not be required to pass in all the subjects at once. This showed that they did not understand the objects of a preliminary examination, the main object, very clearly set forth by Dr. Heron Watson, being to find out what sort of an education a boy has received, and what sort of use he has made of it. Where is the hardship of asking a boy to be examined in Latin a few months after he has shown a competent knowledge of it? If he knows any Latin at all a few months would not make any difference to him.

A wet evening induced very few members of the Ophthalmological Society to attend the first meeting this Session on Thursday sen'night. The bill of fare provided, though small, was good of its kind, and merited a larger audience. Mr. Nettleship and Professor Fuchs, of Liège, contributed cases of impaired vision, due apparently to the vapour of bisulphide of carbon, and the subject was so new and so important that the President nominated a small Committee to see if anything further could be ascertained in respect of it. Dr. Brailey contributed three cases of detachment of the retina treated in different ways, in which he seemed to have had unusually good results with tapping. Mr. Adams Frost read an account of two cases of night-blindness, and Mr. Arthur Benson detailed the results of his trials of cocaine, the new local anæsthetic of the cornea. Neither he nor those who joined in the debate have found reason to put much faith in it.

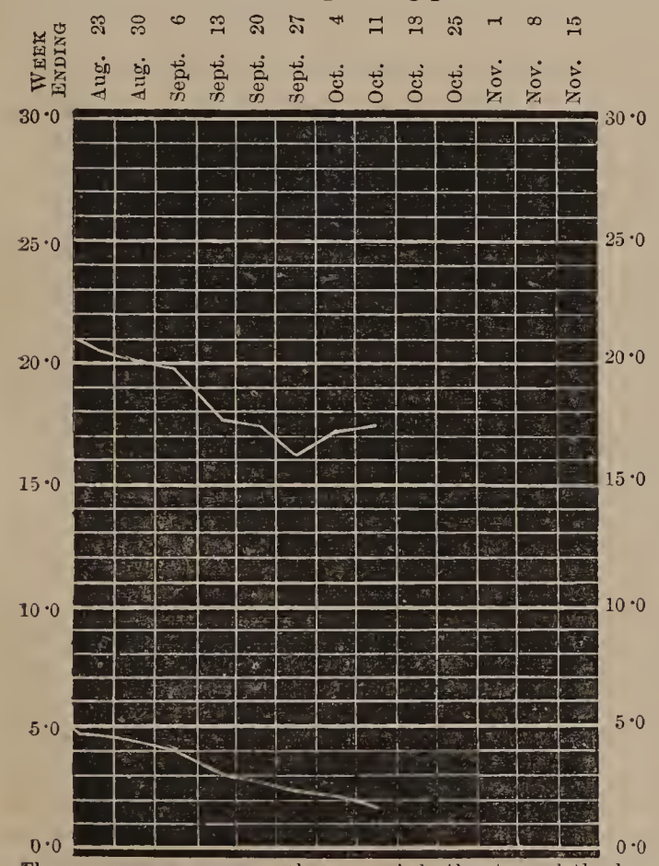
The Clinical Society entered upon a new Session on Friday, October 10th, a very fair attendance of members being present at the first meeting. A slight innovation in the course of proceeding, suggested by the President at one of the last meetings in the summer, was tried for the first time and received general approval. It consisted in the serving of tea and coffee before instead of after the meeting. The change is very appropriately made during the presidency of Sir Andrew Clark, who strongly holds that the consumption of these decoctions at bedtime is a most unphysiological proceeding, whereas their effect when taken before the meetings is eminently beneficial to the vigour of debate owing to the wakefulness which they so frequently induce. An interesting paper by Dr. Hadden upon certain nerve symptoms in rheumatic affections was followed by a rather weak discussion on the subject of the nerve influences in chronic joint disease. A great deal has of late been ventured upon in this direction, and a feeling evidently prevails that more observation and study are necessary before so obscure a condition can be fairly understood or explained. A paper communicated by Mr. Croft on preputial calculi, and an interesting account of a case of urticaria pigmentosa, by Dr. Crocker, failed to elicit any discussion.

An important practical question, however, was raised by Dr. Mahomed, with respect to the early treatment of peri-typhlitis. In commenting upon a case related by Dr. Finlay, he stated that he had long thought that an operation might be performed for removal of concretions in the vermiform appendix, which were generally found to be the cause of ulceration in that region. In one such case his success had been complete, but only one case had as yet been attempted. The idea was very favourably received by many surgeons present, notably by Mr. Bryant who, we believe, will shortly bring forward the whole subject in a more elaborate form in his series of Harveian Lectures.

The session of the Liverpool Medical Institution was opened, on the 9th instant, by an address from the President (Dr. Gee), "On the History of the Liverpool Medical Institution since 1864." He sketched in an able manner the most interesting features of its history from its foundation in 1779 till 1864, and then gave more in detail the social and developmental history of the society from 1864 up to the present time.

In conclusion, Dr. Gee generously offered a donation of 100*l.* to the society upon the same terms as the first president of the institution, Dr. Dawson, who gave a similar donation. His offer was received with much appreciation by the members who were present in large numbers. During the evening Mr. Paul showed, by means of the oxy-hydrogen lantern, a number of micro-photographs of diatoms, &c. Dr. Barron showed several beautiful frozen sections of the human body, and a series of vertebræ, much enlarged and carved in oak for demonstrative purposes. Dr. Briggs showed ovaries mounted in glycerine jelly. Several instrument makers showed a select collection of instruments.

The most noticeable fact in connection with the Registrar-General's last weekly return of the health of the 28 great English towns, is the extremely low zymotic death-rate, especially in London, where it only amounted to 1·7 per 1,000. The general death-rate in London was 17·5, and the deaths were 184 below the average. It is to be hoped that we shall have a series of low returns before the winter comes as a set off against the comparatively high death-rate of last quarter, which was 20·9 per 1,000 as compared with 20·5, 18·6 and 18·8 in the corresponding periods of the three



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past eight weeks.

preceding years. The deaths from the zymotic diseases in London last week numbered 145, or 94 below the average. Small-pox and measles caused 9 each, scarlet fever and diphtheria 16 each, whooping cough 11, enteric fever 26 and diarrhœa 57, only four of which occurred between the ages of 5 and 60. The small-pox epidemic still decreases; 68 new cases were admitted into hospital last week as against 129 and 106 in the two previous weeks. The deaths from scarlet fever were as many as 62 below the average. The returns from Scotland were not very favourable. The general death-rate of the eight chief towns was 22·8 and the zymotic rate 5·0 per 1,000. Glasgow had a zymotic rate of 7·2, which was only exceeded amongst the English towns at Preston, which had a rate of 7·3.

On Monday the Duke of Northumberland laid the foundation stone of the new Infirmary for Diseases of the Eye, at Newcastle. The institution dates from seventy years back, and the old premises had naturally long out-grown the demands upon them, patients having to be constantly turned away. The committee wisely determined to build an entirely new hospital, and the plans show that they have determined to spare no expense to make their new building a solid and well arranged structure. Funds of course are wanting, but in such a wealthy part of the country there should be no difficulty in collecting them. At the luncheon which preceded the ceremony of laying the stone, the Duke of Northumberland made a sensible speech, and Dr. Jeaffreson in responding took the opportunity of championing specialism in general and his own special hospital in particular. Some of his remarks were very *àpropos*. We have only space to quote a few sentences: "Some years ago he attempted to make an estimate of the proportion of eye disease cases to the general population, and he came to the conclusion that not less than one in ten suffered some ocular defect. This estimate, though it might seem high, he was inclined to think was below the mark. Defects requiring correction by proper glasses, when neglected or overlooked, gave rise to the most anomalous symptoms. This matter was one of considerable importance in these days of compulsory education, when children were taught to use their heads almost before they could use their legs. He had known children who were thought to be stupid and idle, and had been much injured physically and morally by punishment, who after all, were only struggling with difficulties arising from some ocular defect. The popular idea of putting off the use of spectacles as long as possible was an erroneous one; and many thousands of eyes were lost, or, if not lost, had deformities developed in them by acting on this idea. It would be well if some form of examination were made compulsory at all public and Board schools, and it would be to the advantage of the community if this examination were carried further than the eyesight, and a complete but brief medical sheet were kept for each child."

I informed you last week, writes our Paris correspondent, that Dr. Wolfe had come to Paris, at the request of several distinguished oculists, for the purpose of demonstrating his method for the treatment of detachment of the retina. He has thoroughly established the success of his operation in restoring sight in cases of total blindness from this hitherto incurable disease, and has shown that the posterior hemisphere of the eye can now be brought within the range of operative interference. The operation has already been adopted by several ophthalmologists in

Paris, and we shall probably hear of it in future, not as a novelty, but as a permanent advance in ocular surgery.

Paris, where popular feeling has seized and expanded the cholera reports from Toulon and Marseilles with all the vividness and exaggeration of the reflector in a Thompson's telegraphic receiving instrument, has been somewhat emphatically advised as to the necessity of setting its own house in hygienic order. The imperfections of a quarantine system are powerful for evil in direct proportion to the sanitary imperfection or otherwise of the district which it is designed to protect. Whether cholera be a disease which originates *de novo*, or whether it march like the "army-worm" *pari passu* with those changes of climate and temperature which are severally necessary to the successive stages of its development, or whether it be imported in the form of sprouting microbes attached to the persons of travellers or to their baggage, and even to disinfectants (for a consignment of chloride of lime is said to have been "fumigated" at one quarantine station), foul dwellings, dirty habits, and foul water are the conditions which above all others invite its appearance.

At the risk of startling them into panic, Dr. Daremberg has done his fellow-citizens good service in directing attention to the sources of the water supply of the suburban localities of St. Denis, St. Ouen, Aubervilliers, Clichy, and Levallois, and of a part of the 18th Arrondissement of Paris (Montmartre). The water is drawn from the most infected part of the Seine, below the mouth of the great sewer which pours into the river a large portion of the impurities of the city. The analysis of this water exhibits the presence of a proportion of 0·002 per cent. of organic matter, while good drinking water only contains 0·0001 per cent., and water just fit for culinary purposes, 0·0003 per cent. The source of the pollution being too well known, it may be admitted that each inhabitant of the above-mentioned localities drinks about *one cubic centimetre* of fæcal matter in the space of a week. This state of things goes far to account for the habitual prevalence of typhoid fever in Paris, and is a standing danger in time of cholera.

In reply to Dr. Daremburg's statement, Professor Gautier, in the name of the *Conseil d'Hygiène*, makes the following remarks: The water supply of Paris is divided into two distinct classes; 1st, public services, namely, watering the streets, supplying manufactories and bathing establishments. The water for these purposes is derived from the Canal de l'Ourcy, a tolerably impure source, since the canal is the main artery of navigation to the port of La Villette, on the outskirts of Paris, which ranks third among all the ports of France, after Marseilles and Le Havre. 2nd, private services, namely, water distributed in houses for home purposes. This is derived from the two small rivers, La Dhuis, and La Vanne, both of which are remarkably pure. Each inhabitant of Paris receives 220 litres of water daily, being about 450 pints. The litre is nearly equivalent to two pints and one-third.

It is proposed, as soon as possible, to supply the suburban localities above-named with water drawn from the Seine above Paris, which, of course, is much preferable to water drawn from that river below the great sewer at Asnières. Still, as Dr. Rochard observes, the Seine above Paris is already polluted by the dejections of a population of eighty thousand souls. These sanitary problems which affect in so large a degree the welfare of the city, cannot be satisfactorily solved without enormous expense. Our forefathers were less exacting, and in many respects less well provided for; but they had the advantage of drinking clean water, for at the beginning of the present century the Seine was a pure stream, while it is now polluted, not only by the excreta of three millions of souls, but also by the residues of a multitude of manufactories, which do more to injure the river than all the impurities evolved from the human body.

We are glad to see that the British visitors at the recent Copenhagen Conference have not forgotten or neglected the *convénances*. The following address to the King of Denmark, condoling with him on the destruction of his palace, has been drawn up and signed by 64 of his late guests. Every effort, we hear, has been made to make the list of signatures complete.

To His Majesty Christian IX., King of Denmark.

May it please your Majesty—We the undersigned English, Scottish, and Irish members of the International Medical Congress lately held in Copenhagen, desire very respectfully, to offer to your Majesty the expression of our profound regret at the destruction of the grand and beautiful palace of Christiansborg. We very gratefully remember the honour conferred on us in that palace, where we were received and entertained with splendid and graceful hospitality by your Majesty and the Members of your Royal Family. The recollection of that reception and of all the proofs of welcome which were shown to us in the city of Copenhagen, impels us to offer, and to hope that your Majesty will graciously accept, this assurance of our sorrow for the loss which your Majesty and Denmark have sustained.

Had any more evidence been wanting, after the *Times'* letter of last week, to show up in the fullest light the unfairness of Mr. Fitch's attack on Dr. Crichton Browne, it must be admitted now that it is supplied in full measure. Dr. Browne, in a second letter to the *Times* of the 13th instant, goes into some detail in vindicating his method of enquiry from the charge of carelessness and fallacy. The important point he makes, that the sum of morning, afternoon, and evening headaches constantly corresponded with the sum-total of headaches *previously* counted, is surely by itself clear enough to convince even Mr. Fitch that he has been very unwise in so lightly contemning Dr. Browne's powers of observation and reasoning. Scarcely less important, as showing that the enquiries did not lead to haphazard results, are the facts alleged by Dr. Browne, (1) that the proportion of headaches increases *pari passu* with the standards; and (2) that it is always higher among girls than boys. After reading, indeed, the whole of Dr. Browne's letters, we

must sincerely commiserate Mr. Fitch for the harrowing process he is undergoing. Not only has Dr. Browne conquered him by argument wherever demonstrative argument is possible, but he has shown, moreover, that when statement is opposed to statement in the two reports, the doctor has more evidence in reserve than the inspector. Mr. Fitch will find it hard to make nothing of Dr. Browne's reiterated assertion, not unattended by good evidence, of the frequency of home-lessons, and "keeping in," and of the considerable raising in late years of the standard of proficiency required by the Code.

Although we now must yield the palm to Dr. Browne whenever he and Mr. Fitch have crossed swords in this controversy, we cannot endorse Dr. Browne's opinion that there is as yet any strong case made out for a connection between the requirements of the Education Code and increased fatality from nervous diseases. Dr. Browne's case is good enough without this contention, which would at any rate be very difficult to prove for years to come. The complexity of causes of "nervous disease" is overwhelming, and the solution of the question will not be effected by the method of agreement alone. Besides, before any scientific, and much more any practical, application can be made of such statistics as those of Dr. Rabagliati, it would be necessary to give, in the first place, a good working meaning to the term "nervous disease;" and in the second to have some little reason for supposing that even a majority of cases in children returned under that heading by practitioners all over the country were correctly diagnosed. And a still further source of fallacy in the conclusion of Dr. Rabagliati that "the working of the Education Act is a main part of the cause of the proportional increase of the mortality from nervous diseases at school ages," is the very great probability that many more such affections, considering the rapidly advancing knowledge of the subject, are recognised and described now than formerly. But this point, the only one which we think Dr. Browne might have omitted, or but incidentally touched upon in his report, has not been seriously attacked by Mr. Fitch. He has apparently, with studied fool-hardiness, rushed headlong on when defeat was almost certain, trusting only, for a possible victory, to throwing an unmeasurable quantity of the dust of inaccurate statements into the eyes of the judges of the combat. But the dust seems to have been already wiped away.

In a leading article on this over-pressure question, which is evidently written by one not biassed in favour of Dr. Crichton Browne, the *Scotsman* nevertheless admits that "it is desirable that the over-pressure question should be settled as speedily as possible, in the one way or the other. If it really exists, it must be doing serious harm to those who are its victims. If it does not exist—or does not exist to the extent that is alleged—harm is being done in other ways. The whole educational world is unsettled. Many nervous people are kept in a state of apprehension. Efforts for the improvement and the further extension of education are retarded from a timid feeling that the advance may mean an increase of injury to the rising generation. On all these grounds it is of the utmost importance that the cry of over-pressure should be put down, either by putting down the thing if it be found to exist, or by showing the hollowness and impertinence of the cry if the thing be non-existent." The only way to secure this object is, as we have pointed out, by the appointment of a special commission of enquiry into the subject. It is very doubtful, however, whether we shall get it.

On the question of Educational Over-pressure Dr. Dyce Duckworth writes to us—"I have no definite experience to set forth on the question of over-pressure in elementary schools, but I have a very strong opinion on the matter. I believe it to be a most vicious and unwholesome practice to force schooling and mental training on young children of all classes. Each case really demands a separate determination as to what is fit and proper. I think the present Procrustean, un-English, 'steam-roller' efforts at uniformity in education, at any age, to be thoroughly bad, and especially so in the case of ill-housed and poorly dieted children. Most children require a good home and a good mother's training only till they are *six* years old, and afterwards very gentle education up to eight or nine years of age. The School Board training, I think, is far in excess of the requirements and proper demands on the ratepayers' pockets, and the results, so far, are not satisfactory in the shape of right-minded, contented, and virtuous lads and girls. Too much is attempted for the majority. The system of premiums to successful teachers is simply pernicious to the last degree. I infinitely prefer the work done in the National Church Schools under the old system, and only wish it was co-extensive with the numbers that it ought to deal with."

The Chancellorship of the Glasgow University having become vacant through the death of the Duke of Buccleuch, there is much speculation as to who is likely to be appointed as his successor. The names of the Earl of Stair and the Earl of Rosebery have been mentioned, and both of these noblemen possess qualifications which might fairly recommend them to the Members of the Council of the University with whom the decision lies. The former, it is reported, has already given his consent to be nominated for the post. The Duke of Argyll has been suggested as a most eligible chancellor, and admirably fitted to adorn the office, but there is unfortunately an obstacle in the way, viz., the Duke is at the present time Chancellor of the University of St. Andrew's. It is difficult to see why there should be any objection to the Marquis of Bute, unless it be on the score of religion, but it is well known that the Marquis would in no way exert any influence which he may possess in that direction in the University.

Dr. Russell Reynolds will deliver the annual Harveian Oration at the Royal College of Physicians on Saturday, the 18th inst., at 4 o'clock.

It will perhaps be a kindness to those practitioners who during the past year have favoured us with intelligence of their change of address, as well as to others, if we call their attention to the advertisement of the Medical Registrar, which appears in another column. It is excusable, if, in the turmoil of moving, men forget to include the Medical Registrar amongst the friends and clients to whom they decide to notify their change of quarters; but the Registrar has a way of not forgetting such omission, and the consequences may turn out serious.

Last week Mr. Sampson Gamgee, on resigning the presidency of a local debating society, delivered an address on the relations of the working classes to medical charities of Birmingham. He was able to show that since 1867 the yearly contributions by the working classes to these charities has risen from 500*l.* to nearly 10,000*l.*, which is more than one-fifth of the total expenditure of the institutions concerned. Of this sum considerably more than one-half was collected in connection with Hospital Saturday, while close upon 2,000*l.* was directly contributed in the form of registration or admission fees. Some of the smaller special hospitals received from the working classes more than their total expenditure. The one unfavourable consideration in connection with this subject is that a large proportion of these contributions must have been drawn from funds which previously were used to pay for the attendance of local practitioners. Since 1867 the hospital population, as Mr. Gamgee terms it, has risen from 66,671 to 144,750, or one-third of the population of Birmingham. This is not a subject for congratulation, for it is not fair to the medical profession that such a large proportion of the population should obtain medical advice without the advisers being a penny the richer for it. We are glad to see that this blot on the present system is fully realised by Mr Gamgee, who strongly advocates the necessity for revising the present system of hospital administration, "which inadequately provides for the public health, works great injustice to many distinguished junior members of the medical profession, and is rapidly spreading the canker of a demoralising pauperism through this vast community." The justice of making some payment to the medical officers of hospitals thus largely subsidised by the patients is also recognised by the *Birmingham Daily Gazette*, which, in commenting on Mr. Gamgee's paper, says: "The serious question of the gratuitous labour of medical men and where it is to end must sooner or later be faced. If all—or nearly all—the recipients of the charities contribute to their sustenance then medical services should be remunerated." The subject is one which is evidently coming on for solution, and we shall not be surprised if it is dealt with and settled in the go-ahead cities of the North long before we are ready to consider it in London.

The *Lancet* has had the good fortune to discover a new picture by Rembrandt, entitled "Vesalius at his Dissections." This painting had previously been claimed as his own production by a modern painter, E. Hamman, and hitherto the world has been blind enough to accept it as his. Now that the *Lancet*, however, has discovered its real authorship, the picture galleries and picture-lovers of Europe will no doubt at once enter into a keen competition for its possession. Jesting apart, we have seldom seen so many errors compressed into so few lines as in the *Lancet's* notice of the two German lithographs, the publication of which we noticed a few weeks ago. In the first place, the picture of Vesalius is of course not by Rembrandt. Vesalius died in 1564, forty-three years before Rembrandt was born, and the great artist was too true a Dutchman to paint a man out of his inner consciousness. In the second place the anatomist whom Rembrandt has immortalised in "The Anatomy Lesson" was named Tulpius, and not Talpius; and in the third place, the lithographs fortunately are not of the same size as the pictures. A reproduction of the same size as Rembrandt's celebrated picture at the Hague would inconveniently crowd the wall space in most consulting-rooms.

It appears that for several years we have had a poet of high rank in our profession without knowing it. Until the *Spectator* noticed it on Saturday last, we believe that no English Journal had called attention to the epic of *Dreizehn Linden*, a poem by a German physician which is said to be the most important contribution made to the poetical literature of Germany since the days of Heine. Its author, Dr. F. W. Weber, now a septuagenarian, practised, and for aught we know still practices, at Lippspringe, a little health resort in the north-west of Germany, sheltered by the Teutoberg forest, and recommended mainly for consumption and scrofula. Dr. Weber appears not to have suffered from his *entourage*. His is no sickly epic, but a robust and healthy poem dealing with the struggles of Franks and Saxons in the years that followed the death of Charlemagne. We ought to be proud of this *confrère* of ours. The medical profession has not produced many authors of the first literary rank. From the time of Sir Thomas Browne till now we only recall two whose works are likely to live by their literary charm alone—the two Olivers, Goldsmith and Wendell Holmes. We cannot honestly claim Keats, and we have a doubt as to whether we have a right to Goldsmith. The great writers seem to come from less definite and laborious professions than that of Medicine, the serious prosecution of which tends to make one think lightly of literary power as such.

A correspondence of considerable interest has lately been taking place between Dr. Smyth, of Islington, and the Holborn Board of Guardians relative to the removal of fever cases. It appears that Dr. Smyth had a child under his care suffering from scarlet fever, and that he recommended the mother to apply to the relieving officer for an order for the removal of her child, and that she had told him her request had been refused, on the ground that the father of the child must apply in person. The relieving officer, on being asked for an explanation, stoutly denied that such an application had ever been made to him or refused. It was the rule, he said, that the head of the house must

apply for relief in person, but this rule did not apply to fever cases, and no order for a fever case had ever been refused on that ground. After so complete a denial of the charge, of course there is nothing more to be said ; but it would be well if there was a distinct understanding that an order would be immediately granted to anyone on the production of a properly filled-up medical certificate to the effect that in a certain house there was a case of infectious disease.

The Berlin correspondent of the *Wiener Medicinische Zeitung*, continuing his account of the Schweninger affair, states that after the Berlin Medical Faculty had protested against Dr. Schweninger's appointment as Extraordinary Professor of Dermatology, the official *Norddeutsche Allgemeine Zeitung* gave what is regarded as an explanation of the occurrence, namely, that it was quite within the province of the Minister of Education to make the appointment without any consultation with the Faculty. This formal right, however, had never been disputed, but only the questionable mode of its exercise in the present case. For, not only had Dr. Schweninger not exhibited any proficiency in this branch of medical science, but he had not come to Berlin with a very good character. If he had enquired, the Minister would have learned that he had been already denied admission to the Munich Faculty because he had been condemned by the law courts to several months imprisonment, which he was only prevented undergoing by means of a royal pardon. Since then he has succeeded in becoming a fashionable physician in Berlin, and after his successful treatment of Prince Bismarck and his son, his rehabilitation was commenced by giving him the order of the Red Eagle, and nominating him to the *Reichgesundheitsamt*, preparatory to the bestowal of the professorship which has made such a stir. Dr. Levin, a great friend of Count William Bismarck, Professor of Syphilitic Diseases in the Faculty, who also held the Chair of Dermatology "provisionally" for twenty years, now found that his increasing practice compelled him to resign this, and Dr. Schweninger was forthwith appointed to it.

To all who have watched the development of pædiatric studies in Italy, the sad intelligence of the death of Professor Luigi Somma, of Naples, the founder and director of the recently established periodical entitled *Archivio di Patologia Infantele*, and devoted to the study of children's diseases, will cause sincere regret and sympathy. He died of cholera on the 19th of September.

At a recent meeting of the Metropolitan Board Teachers' Association, which consists of 2,078 head and assistant masters and mistresses employed in 320 London Board Schools, it was resolved unanimously : "That the Metropolitan Board Teachers' Association endorses generally the report of Dr. Crichton Browne on over-pressure and worry in schools, and further thanks him for his report."

There are always two sides to every question, however simple it may seem to be, and there appears to be one aspect of the great question connected with the amalgamation of the Colleges of Physicians and Surgeons which is in danger of being overlooked ; at any rate it has as yet received but very scant attention at the hands of the Council. It is this—Have we got an examination at present which is so arranged that the man who can pass it is safe to practise and no more ? In other words, is this new Examining Board going to establish a minimum which, if a man cannot attain to, he is to be regarded as not having sufficient knowledge to practise ? If that is the case then it follows either that the examination as hitherto conducted by the College of Physicians for its licence, so far as medicine is concerned at any rate, has been unnecessarily high, or that the standard in medicine adopted by the Apothecaries' Society has been dangerously low. We are not now speaking of the examination in the three essential subjects, but we want to make it quite clear that if the examination at the College of Physicians as conducted in the past is to be accepted as the minimum of safe knowledge in medicine, then the Council will be wanting in their duty to the public if they do not at once announce that the examination at the Society of Apothecaries does not afford a sufficient guarantee of trustworthiness to practise.

What we must have is a minimum standard in the three essential subjects of medicine, surgery, and midwifery, and we do not believe that the new board about to be established will give us that. The men who are turned out under the new qualification will, we doubt not, be on the whole a well educated and highly qualified body of men, fit to undertake any class of family practice, but they will have spent a considerable amount of time and money upon their education, for the majority will doubtless avail themselves of the subdivision of the examinations to take them piecemeal, and so the curriculum in a large number of instances will be lengthened in comparison with what it is at present. But these will not be the sort of men who will, by the superiority of their advice and treatment, drive the unlicensed practitioner or herbalist out of the field, for the simple reason that they will never come into competition with him. It will not be worth a man's while who has gone through the decidedly expensive education that most will go through to obtain the double qualification, to practise amongst those who cannot afford to pay such fees as would be likely to afford a fair return for the outlay incurred.

It is a duty that the College of Physicians and College of Surgeons owe to their licentiates and graduates that they shall not lower the standard of examination. Mr. Marshall told us that one of the reasons for not lowering the fees was that it would be unfair to those who had already paid the higher fees for the same qualification ; this is just as applicable in the case of examinations as in the case of fees. It seems therefore tolerably clear that the new qualification will not represent the lowest standard of professional education, and a considerable number of men

will want something cheaper and easier if they are to be able to earn a living for themselves as registered practitioners. If the majority of those who practise amongst the poor in this country are in future to carry on their practices on the strength of qualifications not obtained out of England, it is certain that we must have something more approaching the examinations in other parts of the United Kingdom, as regards easiness and cheapness, than what the new board is apparently going to offer.

We have only received returns from two of the medical schools at present as to the fresh entries. At St. Bartholomew's there are 125 regular students and 13 for special courses, not including those entered for preliminary scientific or matriculation classes At the London Hospital there are 83 full students and 46 special students. We understand that the entries at Guy's, King's and Westminster are not at present as numerous as could be expected or wished by those connected with those Institutions.

The Sub-Committee appointed by the Association of Fellows of the Royal College of Surgeons to prepare a draft-scheme of reform has concluded its labours. The report is, we believe, to be presented to the General Committee some time next week for discussion and approval. It will then be submitted to a General Meeting of the Association, and afterwards to the Fellows and Members of the College, who will be invited to assist in carrying out the objects of the Association. The scheme is likely to embrace not only college administration, but also the question of the relation of members of the Corporation to the College, and matters concerning the examinations and diplomas.

Only a small College met in Pall Mall, on Thursday evening, to hear Sir Henry Pitman report that the General Medical Council had sanctioned the co-operation of the Royal College of Physicians and Surgeons. Dr. Quain reiterated the objections he had already expressed at the Council meeting, but he was completely out-voted, and Sir Henry Pitman, Dr. Ord, and Dr. Norman Moore were appointed visitors to represent the College on the Conjoint Board.

THE FUTURE OF THE ROYAL COLLEGES.

During the past twelve months it has been the fate of the Royal Colleges of Physicians and Surgeons to attract a good deal of attention. Important questions have come before the College of Physicians on which the decision of the Council was looked forward to with great interest and with an amount of anxiety which the event proved to be perfectly justified. Questions too have been raised with respect to the College of Surgeons which cannot yet be regarded as having received a definite settlement. We are still in the dark as to what action the Council will take on the grave constitutional questions which have been recently raised, and we have very little information as to what use they will make of the grand opportunities presented by the wealth which is destined to them. On the latter point all will agree with Mr. Marshall that the time has not yet come for the College to count its chickens, but it is to the interest of the profession, for whom in this matter the College ought to look upon itself as in some sort trustee, that the chickens shall be well brought up and disposed of to the best advantage. Many weeks ago we pointed out that the one important duty which this new possession of wealth would impose upon the College would be the foundation of an institute of pathology. We take no credit to ourselves for priority of discovery, for it is a fact perfectly obvious to everyone and we are glad to see it taken up by no less an authority than Dr. Wilks, who, as for many years an Examiner in Medicine at the College, may be expected to have some influence with its executive. The organisation of a pathological laboratory has already been initiated on a small scale at the Health Exhibition, and it is not, we believe, beyond the bounds of possibility that this undertaking will be endowed to a certain extent out of the profits of the Exhibition and continued as a permanency under the control of its present efficient head. If this be so, we see no reason why the infant should not in due time be bodily transferred to Lincoln's Inn Fields to feed and fatten on the College chickens as they are hatched. No words are needed to set forth the enormous benefit which such an institute would have upon the success of scientific research in this country, and we are glad to think that the opportunity has come to the College at a time when wise and unselfish counsels are likely to make themselves heard. It may be taken for granted that the influence of Sir James Paget, Sir Spencer Wells, and Mr. Marshall —all of them endowed with the imaginative power needed to rise to a great occasion—will be cast in favour of devoting some of the new fund to that form of pure research which has hitherto been so inadequately endowed in this country. We may point out that the influence of such a course would be no less beneficial to the College than to Science, making it realise that it has a wider and airier field open to it than that of a mere examining body, and a greater claim upon the respect and loyalty of its members than that involved in its having opened to them the portals of practice, and freed them from the claims of the jury box.

The disposal of its wealth when it falls to it will, however, be an easy task compared with the solution of the difficult problems which the College has taken upon itself in entering upon the arrangement with the College of Physicians, which has just received the sanction of the Medical Council. It is easier to discern what will be the logical outcome of that arrangement, than to believe that the College will find the courage to follow it thither. We have pointed out some of the difficulties elsewhere, but may here reiterate that we see no means of escaping from the *impasse* but for the two Colleges to boldly break their way out of it by deciding that they will for no purpose recognize any examinations but their own. This decision once taken, we should at length have the real national "examining board," which Sir Henry Acland painted in such glowing

colours when he recommended the scheme to the College of Physicians in the summer. The double diploma of the Colleges would then become almost the only viable diploma in the country. It would be taken as a matter of course, like the German State Diploma, by everyone who wished to practise Medicine, whatever University Degree he might possess, and if it were only found possible to grant with it the title of doctor, an end would be put at one stroke to some real and many imaginary grievances, as well as to a fertile subject of discussion in the medical journals.

Two objections will be raised to such an innovation: first, that the diploma would be too difficult, and secondly, that it would be too dear, for the lower order of medical students. The first objection would, we hope, be met by improvements in medical education, and by the gradual entry into the profession of men of a higher average capacity than at present. It could also be met by the Society of Apothecaries obtaining powers to examine in surgery, and thus to give a licence which would represent a complete and fair test of efficiency though it would not carry with it the rank or prestige of the diploma of the Colleges. As to the second objection, we trust that the course of events will present an easy solution. In the first place, though it may have been quite right for the College of Surgeons with its large financial responsibilities to refuse to lower its fees, until it is actually proved that examination by co-operation is cheaper than an examination with doubled parts, we hope that no long time will elapse before the Colleges find themselves able to considerably reduce the aggregate fee. In the second place, some portion of the new endowment of the College of Surgeons will no doubt be devoted to the maintenance of the library and museum, and will thus enable it to remit the fines on candidates for its diplomas by which those valuable institutions are at present mainly supported. And in the third place, as Mr. Teale has recently pointed out, the College will probably find it advisable to make considerable changes in the plan of its examinations, which might be rendered much less expensive without becoming in any way less efficient. At present the examinations press very hardly on the important body of provincial students, and with the increase in the number of tests contemplated by the new scheme, the burden will be still more severely felt. The provincial student, in order to obtain his double diploma, will have to come up to London certainly three, and more often probably four or five times before he passes his final examination; and each time he will have to stay several days in town. We have nothing but praise for the policy of dividing the examinations into as many steps as possible, but unless some considerable change is made in the manner of conducting them, such division will be absolutely intolerable to the students in the distant provincial schools, and will certainly tend to divert them towards the more considerate and kindly Colleges of Scotland and Ireland.

The plan suggested by Mr. Teale would meet many difficulties, and it has this to recommend it, that it has been adopted and found to work well by such an expert in examining as the University of London. It would consist in considerably extending the written examination, both in scope and severity, and by holding it in various provincial centres, as well as at head-quarters. At present the College of Surgeons only plucks about five per cent. of the candidates on the written part of its examination, whereas it plucks something between thirty and fifty per cent. on their *vivâ voce*. The unfortunate students who form the difference between five per cent. and fifty, and whom it would no doubt be easy enough to dismiss at once if more stress were laid upon the paper, have now to kick their heels for days in town, drowning their anxiety perhaps in dissipation until the time comes for the pronouncement of their inevitable doom. If the written part, at any rate in the earlier examinations, were held at the chief provincial schools, this danger and expense would, at least to a great degree, be avoided. It is a serious matter affecting an important and constantly increasing body of men, and if the College is to keep its place as a national institution, it must sooner or later make some such arrangement as Mr. Teale suggests. For our part we see no reason why the *vivâ voce* examinations should not also be held in the provinces. The provincial universities find it possible to get London men to go down to examine their students, while it is surely not altogether inconceivable that some of the anatomical and surgical talent of the provinces might be used to supplement the ordinary examiners of the College. It would of course mean renouncing for a certain number of students the unrivalled opportunities of examination afforded by the College Museum, but it would greatly encourage the formation of provincial museums, if the College refused to examine at any school which had not provided itself with proper preparations. We have said enough, we think, to show that one of our Royal Colleges, at any rate, is at a great turning-point in its career. It has been relieved of the shadow of impending legislation which has long paralysed it, for it may be safely predicted that it will be many years before a Minister of the Crown again touches the thorny subject of medical legislation. Meanwhile the College has a fair and open field before it. It will depend on the policy adopted by it during the next ten years whether it shall fall back into a mere licensing corporation, to be superseded as a matter of necessity by a State examining board when the Government of the day awakens to its defects, or shall blossom out into a great national institution, disposing of its large revenues for the welfare of science and humanity, and hand in hand with its elder consort, the College of Physicians, passing down through the coming generations as the twin mother of all who follow the calling of Medicine in this country.

Glasgow Medico-Chirurgical Society.—At the first meeting of the Medico-Chirurgical Society of Glasgow, held in the Faculty Hall on the 3rd inst., the following gentlemen were elected office-bearers for the present session:—President—Dr. G. H. B. Macleod. Vice-President—Dr. Hugh Thomson, Dr. David Taylor, Paisley. Council—Dr. Maclean, Dr. J. C. Woodburn, Dr. Wm. Whitelaw, Kirkintilloch, Dr. W. A. Wilson, Greenock; Dr. R. Cowan, Dr. J. A. Lothian, Dr. Wm. Patrick, Dr. M. Thomas. Secretaries—Dr. W. L. Reid, Dr. J. W. Anderson. Treasurer—Dr. Hugh Thomson.

GENERAL MEDICAL COUNCIL.

FOURTH DAY.—FRIDAY, OCTOBER 10TH.

Report of the Pharmacopœia Committee—Mr. Macnamara's Resignation of his seat on it.

THE first business of the day after the minutes had been read was to receive the report of the Pharmacopœia Committee, in which it was mentioned that the edition of the present Pharmacopœia was exhausted, and that considerable progress had been made with the new edition. The report concluded by mentioning that Mr. Macnamara had sent in his resignation as a member of the Committee.

Mr. MACNAMARA then asked permission to make a statement. After some general observations he spoke of the immense importance of their not using an empirical chemical notation in the new Pharmacopœia, and said he was glad to understand that the newest notation was likely to be adopted. He complained that his suggestions to the Committee had not been treated with sufficient respect, especially in the matter of the nitrate of copper which he declared of his own knowledge to be a most important salt, but which had been refused on the ground that it was difficult to prepare, and deliquescent. He knew quite well the mode of preparation, and was prepared to advise that full directions should be given with regard to it. He knew too perfectly well that it was deliquescent, but that was not a reason for rejecting it; there were lots of salts as deliquescent, if not more so, already in the Pharmacopœia. His complaint was that when he wrote and made these suggestions, he was told by Professor Attfield that his suggestions must come through the Council. (Dr. Quain explained that the word Committee had evidently been meant, but Professor Macnamara refused to see it in this light. Council was the word written and not Committee). He also referred to the extra meeting which had been held in London, and complained that when he had left the meeting because he declined to sit after six o'clock, the Committee had taken the opportunity to pass several resolutions in his absence on which he was very anxious to have made some observations. So that HE the Professor of Materia Medica in the Royal College of Surgeons of Ireland, and the author of a book on the subject, which had reached a seventh edition, found himself in the position of being on the Committee but not allowed to have any part in the production of the new edition of the Pharmacopœia. He had therefore felt it to be his duty to resign his seat on the Committee.

Dr. QUAIN said that he really felt sad at heart that such a disturbance should have been made. He had really taken infinite pains to give satisfaction to everyone. All the teaching authorities and others engaged on the subject had been requested to supply the Committee with information, and the only body that had not sent them anything was the Royal College of Surgeons in Ireland. (Mr. Macnamara here interposed that they had sent a great deal—they had sent him). Mr. Macnamara had complained that they would not adjourn until the next day, but he, Dr. Quain, knew that they had no right to go on for another day on account of the expense. As it was, the sitting on that one day had cost about 40*l.* more than he had estimated it would, and at 6 p.m. only about ten minutes were required to finish the business in hand, but Mr. Macnamara would not stay, and spent nearly ten minutes in saying so. They had also met the next day for a short time. If Mr. Macnamara had sent in his suggestions beforehand they would have been able to give them a full consideration. He concluded by reading the minutes of the meeting in question.

Dr. AQUILLA SMITH had felt with Mr. Macnamara that they ought not to be called upon to sit after six o'clock, and had left the room with him. After that the Committee had got through an amount of business in ten minutes which at their previous rate of progress would have taken thirty-eight. He considered that they had scamped the business. Dr. Quain had imputed that they had wanted to be paid for the next day's sitting, but for that there was no foundation. As to the expense, he contended that there was ample authority for paying them for extra sittings.

Sir HENRY PITMAN gave his impression as to the close of the meeting which substantially was the same as that of Dr. Quain.

The REGISTRAR explained that the letter which Mr. Macnamara had received inviting him to the next day's meeting was purely unofficial.

The Rev. Dr. HAUGHTON regretted exceedingly what he could not but consider a trifling misunderstanding, and especially that it should have been made public. Turning to the report of the Committee he supposed that Professor Redwood meant "new chemical elements" by the words "new substances," and he suggested some verbal alterations in the wording of the report. As to the chemical notation they should take the newest and best, but it would not be final. He thought that they ought to take the opinion of some professional chemist on the subject.

Mr. COLLINS said he had a reputation for being a peace-maker, and he thought that all this disturbance was based on a mistake. He had been treated he said with the greatest respect and courtesy by Dr. Quain, and he considered that the fact that there were no funds was sufficient reason for their not holding a second meeting. He had retired from the meeting for private reasons, but was quite satisfied with what had been done in his absence.

Mr. MACNAMARA explained that he had said at the time that it was quite immaterial to him whether he was paid or not for the second day's sitting, but he objected to being required to sit after six o'clock.

Dr. QUAIN asked permission to quote from the resolution to which reference had been made to show that they had not the power to spend more money. The resolution was so worded that Dr. Quain had obtained permission for an extra meeting, he stating that the probable expense of such meeting would be about 70*l.*, whereas as a matter of fact it had cost nearly 120*l.* Under these circumstances he was not justified in spending any more.

The PRESIDENT regretted this incident very much, and he could testify from his own personal knowledge to the extreme pains that Dr. Quain had taken to avoid this difficulty, and under all the circumstances he hoped that Mr. Macnamara would withdraw his resignation and allow the report to be received without the reference to it. Mr. Macnamara having assented, the motion was agreed to.

Qualifications for Registration.

Professor HUMPHRY said that he had three resolutions on the notice paper of some importance. The first of these as ultimately modified was: "That in the opinion of the Council no person should be granted a degree, diploma or licence to practise, registrable under the Medical Act, unless he has proved his competency in Medicine, Surgery and Midwifery by passing examinations in those subjects at one or more of the licensing bodies. And that this resolution be communicated to the several licensing bodies with an expression of the hope of the Council that each licensing body will use its best endeavours to give effect to it." The Council, he said, was now entering on a free breathing condition, and he felt that it ought to take active steps to carry out to the best of its ability and power those views which had met with general acceptance. The President in his address on Monday had mentioned certain points that they ought to keep in view, one of which was that no person should get on to the Register unless he could produce a certificate of his competency in Medicine, Surgery and Midwifery. This had long been recommended by the Council to the licensing bodies, all the Bills introduced into the Legislature had contained it as an essential proviso, and it should be the first point to which they should direct their attention and upon which they should insist. He thought that they ought again to send to the licensing bodies a resolution on the subject. There were a considerable number of men on the Register who had passed only in part, and such men were still getting registered. They ought to put a stop to this, and with the co-operation of the licensing bodies they could do so without the aid of a Bill. Unless a person had passed an examination in all these three subjects he had not the requisite knowledge. This opinion was so universally expressed that he could not

but think that bodies which had not already acted upon it would see their way to doing so in the future. He would for the present leave it to them.

The Rev. Dr. HAUGHTON in seconding the amendment did not think it touched the evil completely. The Universities of Cambridge and Dublin had already adopted the same practice, and others also were following. In Dublin a man was allowed to be rejected in one subject. Professor Humphry had underrated the importance of the principle. He was so afraid of the resolution not being carried out that they ought to go further. He did not want it to go forth to the public that the Council approved of the way a man could get put on to the Register. He referred to cases where an otherwise well informed student was ignorant on the subject of fever. Dr. Humphry's proposal should be made compulsory on the licensing bodies, but the Council, though it had the power, had not the moral courage to compel them. They must do something more than pass mere resolutions.

Dr. BANKS said that the motion had his cordial sympathy but he thought that compulsion would be necessary. In the new Royal University he had insisted that six months midwifery should be required before a man came up for his medical degree. There was no subject upon which so much ignorance prevailed. Many men otherwise well educated were utterly and entirely ignorant of it, and had never seen a case. It was to the discredit of the Council that many men had been allowed to pass from their student days with no knowledge on a special subject like this.

Dr. STORRAR would give his hearty support to the motion, but he saw a difficulty in the way. The Apothecaries' Society had no power by their charter to examine in Surgery, how could they refuse to examine a man, and when he had got his licence he could be put on the Register. It seemed to him that there were only two ways out of the difficulty. Either the Society of Apothecaries would become effete, or they would be embraced by the other two bodies. He supported the motion because every expression of opinion was valuable, but it was very difficult to see how it could be brought to bear.

Professor STRUTHERS instanced the way in which the scheme had been found to work in Scotland. He contended that they had the power to insist, and thought the motion far too weak and behind the age. He would require not recommend that under Clause 20 of the Act, the examinations should be satisfactory to the Council.

Mr. SIMON thought that Dr. Struthers had misunderstood the clause. The appeal to the Privy Council was where proper examinations were not held in accordance with the Act, and as long as this was the case, deplorable though it might be, they could not interfere. He agreed with the spirit of the motion, but they must not shut their eyes to the difficulties. He thought that the Society of Apothecaries would immediately appoint a surgical examiner, and saw nothing in their Act to lead him to suppose that they could not do so. They could not prevent a Licentiate of the Apothecaries' Society being registered, and if any question was raised against that society for appointing an Examiner in Surgery, they could reply that Medicine included Surgery, and they could also point to the resolution of the Council that they ought to do so, and that without it the examination would be incomplete.

Mr. TEALE thought that if a man was prevented from getting on to the Register with only a single qualification, it would be a very important step. In Scotland this had already been secured, and also in England, except in the case of the Society of Apothecaries. It was not for the Council to decide points of law; either the Society could examine in Surgery, or keep their licence in suspense. He did not agree with Mr. Simon as to the interpretation to be put upon Clause 20 of the Act, and thought that this resolution ought to be forwarded to each licensing body with a request that it would report to the Council in March 1885 what regulations were in force to secure this result.

Dr. AQUILLA SMITH expressed a decided opinion that they could not do what they were attempting to do, and that an Act of Parliament would have to be obtained before they could refuse to receive on the Register the present qualification of the Apothecaries' Society.

Mr. COLLINS, after referring to his expressed views on this subject on a former occasion, said that in the case of his own body, the number of cases of midwifery required had been reduced from 30 to 20 in order to be in accord with others. As to surgery, one of the Clauses of the Conjoint Scheme had given much latitude to their recommendation, and they had since acted upon it as far as they could. Did Professor Humphry, he would ask, expect them or the College of Physicians to give as full an examination as the College of Surgeons in surgery? Their examination was regarded as important in Ireland as including a good deal of pharmacy. Their men were not intended or expected to practise large operations but only to be able to discriminate between cases, and to perform the minor operations. They had not the appliances and ought not to be required to examine in the higher branches. This question showed once more the importance and common sense of the tripartite scheme which he had advocated on the previous day. They, *i.e.*, the Apothecaries' Hall of Ireland, were ready to join in this for the benefit of the public.

Dr. LYONS said that this motion was admirably devised and with the best end in view, but it was trying to accomplish what was not possible, viz., to coerce all men entering the profession to qualify themselves in almost every conceivable branch of medical knowledge. Such a thing was neither desirable nor practicable. They were going against tradition, and running counter to modern feeling in regard to the division of labour quite unnecessarily. All who entered on a special branch of the profession should show special evidence of their fitness to practise it, but it was not possible to mould all men in one rigid and unyielding mould. A very considerable number of men would be deterred from a profession in which they had to pay attention to that which was repugnant to them and which they never intended to practise. After speaking of the important subject of women in labour he said that he would require of all men who intended to practise midwifery, full and satisfactory evidence of their education in this subject, and they should be tested both by hospital work and by examination. But why should some four or five thousand men be made to study midwifery when they never intended to practise it, and would give it up the moment they were qualified? What good public object would be attained by this course? He would make it penal for any man to practise midwifery who did not possess a special licence to practise it. This would answer the requirements of the public, and save men from learning what they never intended practise. They ought to pause before passing this resolution and apportion their aims to the necessities of the case. Besides midwifery there were at least two other very important subjects. One was connected with the army, viz., ophthalmia, and the other was lunacy. Legislation of a stringent character on this matter was impending, and he characterised the recent alleged case of feigned lunacy as a discredit to the profession. A more ludicrous, painful or humiliating case had never been before the public than one recently in the law courts. Such cases ought not to be possible or practicable, and the way in which the alleged lunatic got out of the asylum was almost the worst part of the case. He thought they were in danger of travelling too fast; if they enforced midwifery in a short time they would have to enforce lunacy, and many men he believed were incapable of mastering it. Each man should be tested and fully examined in that branch which he wished to practise, and in no other. Under this scheme there would be great danger of favouring a man who was good in some subjects but weak in others, and they must remember that every exception made weakened the rule. If they enforced one subject they would have to enforce others, and there was no saying where it would all end.

Mr. COLLINS seconded the amendment of Dr. Lyons, to the effect that it should be made penal to practise midwifery without a licence.

Dr. QUAIN would not admit that the fact that a man should feign lunacy and thus get admission into an asylum, threw any discredit on the profession. As to the recommendation they were asked to pass, he called attention to a very similar resolution they had passed in 1869, and

thought that the Council ought not to show any disrespect for its former resolutions by acting as if they had not been passed.

Mr. Simon suggested that they should refer to the former resolution and emphasize it.

Mr. Macnamara did not see that the passing another resolution was of any use, nothing weakened them more than passing resolutions which were not carried out. He agreed with Mr. Simon in his interpretation of Clause 20. In the event of a body being reported to the Privy Council, they would say that they only undertook to examine in medicine or surgery as the case might be, and they would be able to prove that in the one branch their examination was satisfactory. He was aware that to make recommendations when they had not the power to enforce them was lowering. His own College had endeavoured to carry out all the recommendations of the General Medical Council. He considered that all these recommendations were futile, they must obtain complete power over the Register. Speaking of midwifery he said that all the troubles that he had ever heard of arose out of cases of midwifery.

Dr. Fergus called attention to a resolution passed in 1880, which was almost identical with the one then under consideration. He considered that the whole discussion had been absolutely idle and futile.

Dr. Matthews Duncan objected to reference to the resolutions of former Councils, as implying a degree of continuity which they did not possess. The Council was a totally different body now from what it was in 1869, only four of the then members were still on the Council. Another objection was that the state of medical reform was not in the same condition. They were now disposed to consider how they could enforce their resolutions. The Council would not be deficient in respect to its own resolutions by not making any reference to them.

Dr. Banks thought with regard to Dr. Lyons' observations that very few young men had made up their minds what branch they were going to follow, and often a man did not pursue the bent of his first inclinations. Mental disease he considered very important, and the Royal University of Ireland insisted upon a knowledge of it.

Dr. Pettigrew said that every man ought to be duly examined in all the three branches; he need not practise them all, but he ought to know them. This scheme would work well, as was shown by the experience of Scotland.

The amendment was then put and lost.

Mr. Simon suggested a verbal alteration, introducing the words, "at the present juncture," to connect the resolution with the former ones on this subject.

The Rev. Dr. Haughton objected to their going back to the old resolution, which mentioned ten subjects. What they wanted to do was to insist on a competent knowledge of Medicine, Surgery, and Midwifery. These three were matters of life and death, and ought to be kept separate from the rest, which in comparison were of minor importance.

After some observations from the President and Dr. Quain to the effect that the former resolution was still in effect, inasmuch as it was daily given away in a printed copy of regulations, Mr. Marshall observed that the former resolution was a sort of general direction to each body to examine in all subjects. His own corporation had got out of the difficulty by obtaining power to withhold its diploma until the candidate had passed in all the subjects. All that a half qualifying body had to do was to wait. Certain bodies might not have this power. They could, however, take steps to obtain it.

Professor Humphry said that he had given very considerable and very serious thought to this resolution, and it was satisfactory to find that the Council had come back substantially to what he had suggested. He knew of the former resolutions on the subject, but it was their duty to press this matter in a definite, separate, and distinct form. It was not desirable to issue threats. Each licensing body would become conscious of its deficiencies, and would seriously and carefully consider what steps it could take to remedy the defects. The Apothecaries' Society might get over it, they might require their candidates to pass the examination at the College of Surgeons, or if they could not do so, it would be worth their while to obtain an Act enabling them to do so, if they wished to exist.

The motion was then put, 21 voting for, 1 against, and 2 not voting.

Mr. Marshall then moved that the qualification of M.R.C.S. be removed from the name of George Washington Evans in the Register. The name had been removed from the Roll of the College of Surgeons on what he considered ample grounds, and if necessary he could give the facts. The erasure was ordered without discussion. It was stated that his case was now under the consideration of the Faculty of Physicians and Surgeons of Glasgow, of which body he was a licentiate, and that his name would probably shortly be removed.

Dr. Heron Watson made a similar application with regard to the qualification of L.R.C.S.E. of Thomas Robert Horton, which was likewise agreed to, and it was stated that the College of Physicians of Edinburgh had the case under consideration, and that before long doubtless his name would be removed from the list of licentiates of that body also.

A communication was then read from the Irish Branch Council respecting the enforcing of hospital attendance on students.

The Council then adjourned.

Fifth Day.—Saturday, October 11th.

Returns Respecting the Preliminary Examinations.

Sir Henry Pitman moved that the Council should ask for certain information from all the bodies whose certificate they accepted in regard to the preliminary examination, such information to comprise the following points, viz.:—The percentage of highest marks, the percentage of pass marks, the number of candidates at the examination in question, and the copies of the examination papers set. He said that as regarded the professional examinations they already had such information on the first three heads, and they were now asking for the same information from those connected with the general education. It had been suggested to his mind that they ought to apply for such returns, by the return recently communicated from the College of Preceptors, the only one received from the bodies whose certificate they accepted for the preliminary examination, which showed that 75 per cent. of the candidates were rejected. This showed a considerable amount of strictness in their examinations and they had no means of judging as to other bodies in that respect, they accepted their certificates without a word of enquiry. He thought that it was the duty of the Council to exercise some sort of supervision over these examining bodies, though not by visitation. Probably some who had been rejected at the College of Preceptors got through elsewhere afterwards.

The Rev. Dr. Haughton referred to the great amount of information they had derived from the lists they had received from the foreign and colonial examining bodies. He spoke of the list of passed and plucked as a function of many variables, it showed the preparedness of the candidates.

Dr. Aquilla Smith moved that a return should be asked for of the subjects in which the candidates had failed; this would make the information complete, without it the rest would be of little value.

Sir Henry Pitman saw no objection to the proposal. The College of Preceptors already furnished that information.

Some rather desultory conversation then ensued on various points connected with the motion. Professor Haughton pointed out that the Universities examined a man as to general knowledge and without any reference to the Council, though it so happened that all the subjects they insisted upon were included in the general examination. He thought they certainly ought to make the request so that the return should deal with the past year and not give them only the results after all these questions about it had been made. Mr. Macnamara was of opinion that they certainly ought to be told in what subjects the candidates

had failed, and his own corporation would be quite prepared to give that information. Professor HUMPHRY raised a question as to the meaning of certain parts of the wording of the resolution, and this led to a general conversation on the part of the members, which lasted over ten minutes before the debate could be said to have been resumed. Dr. STORRAR pointed out that they ought to ask for the numbers of those who had passed and those who had not passed, as men often went in for an examination and came out without being rejected and without passing because they withdrew. Ultimately the motion as amended was carried.

Dr. PETTIGREW moved and Dr. WATSON seconded the following amendment as they pointed out that it was desirable that the system of marking from which these averages were to be obtained should be as uniform as possible :—"That the several bodies referred to in the foregoing clause be requested to give the results of their examinations in question (whether written or oral), by means of percentages." This was agreed to.

A Question of Duty.—Branch Council or Executive Committee.

Dr. STORRAR rose to move an alteration in one of the Standing Orders, viz., the substitution of the words Branch Council for Executive Committee in a certain passage. The matter referred to an old rule which provided that questions relating to certain of the Indian services should come before the Executive Committee. Two such cases had lately arisen, and had been referred to the Branch Council by the Executive Committee, who had referred them back to the Executive Committee again. This was a most round-about way of doing business, and might be very expensive. As much business as possible should be given to the Branch Council on the score of economy. Another disadvantage of the present system was that it postponed decision on a matter that ought to be adjudicated upon without delay. The English Branch Council had very little to do so far as he knew; one year, he thought, it did not meet at all.

Professor STRUTHERS seconded the motion.

Mr. SIMON admitted the circuitousness of the present transaction, but said that harmony of action must be secured. There were three Branch Councils, but there was only one Executive Committee. The cases in point ought never to have come before the Executive Committee. If the Branch Council were satisfied that there was a case for the Executive Committee, it would refer it to them. The clause in question had been inoperative for a very long time, but he thought that when such cases did arise they ought to be decided by a single central authority.

Dr. QUAIN explained how the mistake had crept into the regulations which permitted of a doubt on the subject, and Dr. Storrar consented to alter his motion, as he saw the danger of collision between the different Branch Councils.

Visitation of Examinations.

Professor HUMPHRY proposed that the visitation of examinations be resumed, suggesting that four visitors should be appointed in England, two in Scotland, and two in Ireland. He said that the power of visiting was most important, effective, and beneficial. The influence thus exerted had been very great, not so much by the reports, excellent though they had been, or by the resolutions thereon, but by the influence of the visitors on the examiners, and by their communicating the impressions they had derived to their own bodies after their return. It was a quiet, unseen, yet most important influence. Almost all the bodies had been influenced and improved. Bodies were often unconscious of this influence; it produced very little credit, as was known, and was almost always passed over in silence. It should be more continuous and efficient; there should not be outbursts of visitation, a sort of bombardment with due notice. It had not been regarded as an attack; the visitors had everywhere been received with open arms. They all had the information before them as to the previous results. Occasional outbursts had their evils; the people were forewarned. Then, too, the visitation caused a certain amount of disturbance and nervousness at examination, especially among the candidates, who always knew when they were coming. The evil associated with visitations would be lessened if they were more continuous; people would get accustomed to them. Then the report should be much shorter. They would soon be able to judge whether the examination on the three points was satisfactory. He would leave all details to the Executive Committee, and he considered that no expense should be spared in promoting so grand and important a work as that of improving the examinations, but at the same time he did not think that the examinations need be so very expensive.

Dr. QUAIN thought that no objection could possibly be raised on the score of expense, they could not put their funds to a more proper use. The resolution should be in as general terms as possible, and certain of the standing orders with which it would clash would have to be suspended.

Professor STRUTHERS laid great stress upon the importance of distinguishing between expert and general visitors. The President in his address had said something about their sending assessors to every examination, but that they had already the power to do. The Branch Councils also had the power. After referring to the coadjutor system advocated by Sir Lyon Playfair in the House of Commons, he expressed the opinion that the number of visitors suggested by Professor Humphry, viz., eight, would not be nearly sufficient.

Dr. PETTIGREW said that if the visitors were to be efficient they should be experts. No mistakes ought to be made in their reports. One locality might be taken one year and another at another.

The Rev. Dr. HAUGHTON asked whether they were to visit the preliminary examinations or only the final.

Mr. SIMON said he thought that was a mere question of detail. The essential thing was that the Council should instruct the Executive Committee to resume the visitations, and conduct them from year to year. The terms of the resolution should be made quite general.

Dr. BANKS thought that the visitations had been productive of a vast amount of good, and he hoped there would be no difficulty in getting men as able as their predecessors to undertake them.

Dr. HERON WATSON referred to the good effects of the visitations. He would not say, however, that the visitations should be from year to year, but from examination to examination. As to the expense, they had not made sufficient use of their income in this direction formerly. He quite agreed as to the good effect of the visitors on their own bodies. The visitations ought to be so carried out that they could assure the public that the examinations were conducted satisfactorily.

The PRESIDENT referred to the very large power that the Council had in their hands in the right they possessed of visiting any examination in virtue of their seat on the Council. Were they justified in not using that power more than had been done in the past.

Mr. TEALE, referring to the report which had been alluded to, reminded the Council that the object of the visitors on that occasion had been to see something of all the examinations of the corporations at the same time, so as to afford a comparative statement, and they had been unable to pay any long visit to any of the examinations, owing to the difficulty of getting from one place to the other in time. The new visitations would be for an entirely different object. Formerly many of the licensing bodies were much below the standard, but that was no longer the case. They would now require experts as visitors to judge of special subjects. These visitors would form a body to keep the Council in touch with modern education, and assist the Council in framing regulations as regarded the curriculum. It would aid them in revising that curriculum and subtracting from it much that was useless.

Dr. LYONS thought that the Council would be guilty of a dereliction of duty if it did not proceed with a system of visitation. The same system was adopted in the public services. He approved of the principle of the resolution, but would rather it had been left in the definite form in which it had been proposed.

The motion was carried.

On the motion of Dr. QUAIN certain of the Standing Orders relating to this subject which would have interfered

with the free action of the Executive Committee were ordered to be suspended.

A complaint respecting certain registered dentists was then received, and it was resolved that the Council do not see fit to take any action in the matter.

A communication was read from the Preston Medico-Ethical Society and ordered to be laid on the table.

A communication was read from the Irish Branch Council, respecting the Amendment of the Medical Act of 1858, and ordered to be entered upon the minutes.

The Council then adjourned.

Sixth Day.—Monday, October 13th.

Professional Education and Examination.

Mr. Simon moved a resolution to the effect that the Branch Councils should be requested to reconsider the present regulations for the professional examinations and confer with the licensing bodies and communicate to the President before the end of January next any amendments they might have to suggest. He said he moved this almost as a matter of routine. After so many years it was a matter of necessity that they would require some revision. There would be several points it would be well to discuss, on which he could form no opinion at present until he had heard what the licensing bodies thought. He wished to look at the whole systematically. Dr. Banks's resolution had touched on the question of the length of the curriculum. From what had already been said, it was essential that that should be discussed, but not until after they had had an opportunity of discussing the matter with the various licensing bodies.

Dr. Banks seconded the motion; it was comprehensive and complete. His own motion had been brought forward mainly with a view to lengthen the curriculum.

Mr. Marshall was in favour of the resolution; it did not bind the Council to any definite line, and could not fail to produce a beneficial result.

Professor Struthers approved of the resolution; he would like to see the Branch Councils have something to do. It seemed to him that in accordance with Clause 6 of the Act they had this power, and were virtually divisional boards. He thought that January was too soon for the reports to be sent in to the President.

Dr. Lyons referred to the last sentence of Clause 6, to the effect that the President was a member of every Branch Council, and he thought that if the President would exercise that power it would be followed by very important results. He hoped that the Branch Councils would have more life. Fresh duties were about to be imposed upon them and activity infused into them, he had no doubt with great profit and advantage.

The Rev. Dr. Haughton was sure that all his fellow countrymen would welcome the President at their Branch Council meetings.

Dr. Haldane said that hitherto all requests of this sort to the licensing bodies had come direct from the Council, and he thought that in a matter of such importance this should still be the case. It would come with much greater effect.

Mr. Teale thought the motion an exceedingly good one. It suggested a much more intimate consultation between the Branch Council and the licensing bodies than had existed. They would have a quiet discussion on the matter beforehand. Medical education in England and Scotland was taking a new departure at the present juncture. The Council had been adding to their recommendations and the time had now come for reconsideration. It had been said that hygiene, ophthalmology and mental disease ought to come in to the curriculum, some advocating hygiene at once. He was not of that opinion. Ought they not to cut out or seriously limit some of the subjects? If the time was not extended they could not add to the curriculum. Some subjects he considered were dealt with in unnecessary detail in the examinations, and he instanced materia medica and more especially pharmacy. Another important point was the fact that they turned out men nowadays who could pass very good examinations but who were very bad assistants.

Dr. Pettigrew thought that there was a necessity for the Branch Councils to do this work and not throw it on to the Council. Centralisation was bad and should be avoided as much as possible. The work would be better done by the Branch Councils.

Sir Henry Pitman said that the motion was imperfect and he should have been very glad if the mover had included preliminary as well as professional examinations in it. He knew that they were quite distinct and separate, but he feared that if they once began to discuss preliminary education the sitting would last a long time. He suggested that the subject should be dealt with by the Committee and framed in a form fit for the Council, when they had received the reports from the Branch Councils.

Mr. Simon entirely agreed in the idea of giving a larger share of activity to the Branch Councils; that would be in accordance with the spirit of recent attempts at legislation, and they ought to develop the Branch Councils. He expressed his approval of the idea of the President being omnipresent at the meetings of the Branch Councils. He was quite willing that a copy of the resolution, if it was passed, should be forwarded to the various licensing bodies. He thought that the vigour of the Branch Councils ought to enable them to do the work necessary by the end of January, and was sure that the Executive Committee would require at least two months to go through those reports.

The President said that he should regard this motion, if carried, as one of the most important resolutions of the Council since its foundation. This was the latest phase, carrying out the spirit of the most important recommendations of the Royal Commission. As to the work being done by the Branch Councils this might appear to some a retrograde step, but it was not so in reality. There were divers bodies of different opinions and interests, he used the word advisedly, and the difficulties were enormously increased by discussion there. It was absolutely essential that some arrangement should be arrived at by which these matters should come before them in a state of preparation, and the loss of common time which now happened be put an end to. The resolutions would come in future before the Council in a form in which they could be discussed. This would be accomplished if this motion were agreed to. Speaking of the differences between the schools, differences of nationalities, of prejudices and of interests, he said that neither the public nor the Council appeared to appreciate these differences, and until they were understood no real solution of the difficulty would be arrived at. This was a better procedure than he had sketched out in his address when he had said that the Council must seriously consider what they were going to do. Possibly when these reports were presented they would also have the reports of the new visitors before them. As to the remarks about the President being on the Branch Councils, he had about ten years ago presided at a Branch Council meeting in Scotland by invitation when he happened to be in the neighbourhood, and he had four times been in Ireland at the time of the meeting of the Branch Council, but had not been invited to join. If ever summoned to a special meeting, if he thought any useful purpose would be served by his presence he should feel it his duty to go. The Council he considered were entering on a new phase, though not an entirely new one, and he considered the present resolution a most important one.

The motion was then carried.

Mr. Simon then moved that it be an instruction to the Executive Committee to prepare for the next meeting a statement of the reports which would be handed over to them by the President. This raised a good deal of opposition, some objecting on the ground of unnecessary expense, others not trusting the Executive Committee to deal with the reports, so that Mr. Simon withdrew his motion and the more readily as by the Standing Orders the matter would anyhow pass through the hands of the Executive Committee.

Mr. Simon then moved, and Dr. Haldane seconded, that a copy of the resolution be sent to each of the licensing bodies.

Preliminary Examinations.

Sir HENRY PITMAN then moved that the Council should resolve itself into a Committee of the whole Council to enter fully into the consideration of the subject of preliminary education. He had hoped that this would have been included in the former motion, and would thus have been rendered unnecessary. He brought the subject up in consequence of a resolution of the Council at the past session, when it was observed that if the Bill then before the Parliament became law, the consideration of the subject would devolve upon another body, but if not it would be their duty to lose no time in entering upon it. There was another reason. At the examination of the College of Preceptors already referred to, only four had passed in mechanics out of a total of 274 candidates, though all were not necessarily medical students. This seemed to afford matter for investigation. Then again they had received from the Cambridge University some representation on the subject of a higher examination which they did not recognise, whilst a lower one was recognised, but it had not been taken into consideration at their last sitting.

Dr. AQUILLA SMITH seconded the motion.

The Rev. Dr. HAUGHTON thought that the cause of elementary education would be better served if the matter came through the Branch Councils. If they did this they would gain time, he believed. The Council had made the recommendations without a sufficient knowledge of the working of the bodies who conducted the examinations in elementary education.

Professor STRUTHERS thought that it was for the Council to lay down the lines upon which the elementary instruction should be constructed.

Mr. TEALE supported the proposal of Dr. Haughton. The Council would obtain information through the Branch Councils of what the various examining bodies were doing. On this subject as on the professional examination question they wanted the aid of expert advice.

Mr. MACNAMARA held that this examination was altogether on a different footing from the professional examinations. They ought to discuss it; they had distinctly promised to do so, and not to do it now would be only postponing the evil day. They knew more about it than the experts, and would look at the matter from a professional standpoint. They ought to proceed to the work and not shirk it. As Mr. Simon had said, they could not deal both with preliminary and professional education in one session.

Dr. PETTIGREW thought it would be a great mistake to defer this subject; it was the very one for which the Council had been summoned, and the Branch Councils were not so competent to deal with it as they were.

The Rev. Dr. HAUGHTON withdrew his amendment.

The motion was then put, and 16 voted in favour of it.

The strangers were then ordered to withdraw, when a letter read by Dr. Fergus was referred to the solicitor to the Council, and on their re-admission the Council were still sitting in Committee.

Professor HUMPHRY brought forward his motion with a view to lessen the area, and at the same time improve the quality of the examination. He thought that in the present system of work there was not enough of mental training, and too much of mental cramming. The defect was not in the acquiring of facts, but in showing that they comprehended those facts. Candidates could answer questions as to facts, but could not give reasons, and if asked a simple rider to a question they almost invariably broke down. The mental training and cultivation were not of the requisite kind; more time was required; indeed time was the most important element. He had excluded some subjects in order to diminish the amount of the work. They ought to select those subjects best fitted to prepare the mind. It might be said that he had reduced the area without improving the quality, but a slight improvement in quality was equivalent to a large diminution in area. What they wanted was that a little thought should be required; the difficulty was not so much to get up a large number of subjects as to go more deeply into a few.

Mr. SIMON thought that the best plan would be that they should rescind the subjects they wished to discard in the order in which they occurred in the regulations.

The Rev. Dr. HAUGHTON thought that the optional subjects ought to be rescinded.

Professor HUMPHRY went on to say that he had chosen Latin to represent language because he thought none was so well calculated to give a knowledge of systematic grammar; it was taught in all schools and would be useful to the student in his after career. As to a specific book being chosen, he admitted that it was an evil; it was wrong in principle and encouraged cramming, but in the present state of school education it seemed to him unavoidable. Unseen passages, as they were called, would be a far better way of testing a man's knowledge, but to adopt it would, he had been assured, exclude a large number of men from the medical profession, and he had therefore suggested passages from a specified author or unseen passages or both. A good man might not happen to have read the particular book set, and he therefore ought to have the opportunity of translating at sight. Ultimately he hoped that the unseen would supersede the other, and would gladly have had it alone.

Mr. TEALE seconded the motion.

Dr. MATTHEWS DUNCAN could not see how the quality of the examination was improved by this if the man could not do a piece of unseen Latin. This was a matter of detail and all details should be left to the examiners; in fact they were always over-ridden by the examiners, and an examination was just as hard or as easy as an examiner liked to make it.

Mr. SIMON said that it was most undesirable to give an easier and a harder alternative. There should be no option in the matter, their object was to fix upon a minimum.

Dr. STORRAR referred to the fact that in 1859, the Council had at his suggestion resolved that it was inexpedient to set up a standard in arts of its own, but that it should rely on those bodies which superintended general education. It seemed to him that the effect of this resolution would be to set up a standard in arts lower than that of any other body, and if they did this, who would conduct their examination, as the proposition had long ago laid down that these preliminary examinations were not to be conducted by a medical body.

The Rev. Dr. HAUGHTON said that nobody had a greater respect for the dead languages than he had. He would wish every student to be familiar with Latin, and the minimum he would accept would be translation from a prose and verse author specified, and from an easy unseen passage, and also the translation into Latin of an easy English passage. If anything less than this were proposed, he would rather see Latin out of the curriculum altogether.

Dr. HALDANE seconded Dr. Haughton's amendment, and thought that the proposal of Professor Humphry would not test a man's knowledge of Latin. At present the secondary education throughout the country was very bad, and as a rule the knowledge of Latin was extremely bad.

Dr. CHAMBERS could not accept the high standard that Dr. Haughton had set up of being able to read Cicero in old age with pleasure, as by any means the minimum that ought to be aimed at. Latin strengthened and improved the mind, it was on account of the grammar that it was especially useful. It taught people to be logical and that was one of the objects of language, and Latin was the best of all for this purpose. Even a very little was useful. A specified author marked the distance to which the examination would go. To translate English into Latin was not of much importance, it was requiring a very high degree of knowledge, too high he believed. He would not accept Cæsar as the minimum.

Professor HUMPHRY said he had been charged with lowering the examination, but the great majority of men went up to the College of Preceptors, and they did not ask for unseen Latin, nor did the Junior Local Examinations of Oxford and Cambridge. He would accept Professor Haughton's amendment as to prose and verse, and unseen passages as well, but not as to the rendering English into Latin. He would be satisfied with Cæsar done well.

Sir HENRY PITMAN said that they were now proposing to raise the standard, a dangerous experiment, seeing the

large proportion who were rejected under the existing examinations. They must remember that they drew the majority of their men not from the Universities, but from the middle class schools. They must be careful in raising the Latin, as they would have to raise all the other subjects in corresponding degree. He thought that the former scheme included all that was requisite in the matter of Latin.

Mr. Simon said that on those subjects on which they insisted they ought to have a fair knowledge. They were trying to narrow the area, and increase the requirements; he would insist on three subjects, viz., Latin, elementary mathematics, and elementary mechanics, and would dismiss all the optional subjects, such as geography and English history, nor would he require a separate examination in English.

Dr. Lyons saw great difficulty in dealing with this subject. They were discussing details when they had had no opportunity of discussing the principle. He did not quite understand where they were; were they discussing this question finally, because he could not assent tacitly to exclude Greek; he believed a certain knowledge of Greek to be of great importance. He would move, if necessary, as an amendment, that Greek be given a recognised place in the curriculum.

Professor Struthers considered that they were altogether going on a wrong tack; they ought first to have had a discussion on the general principle.

Professor Humphry asked leave to withdraw his original motion, and substitute one declaring that the examination should comprise Latin, elementary mathematics, and elementary mechanics.

Dr. Storrar said that if those subjects alone were going to be proposed he should certainly oppose the motion. Why should they admit at a lower standard? The College of Preceptors and the Universities were much more likely to understand the capacities of students. The candidates came up for examination exceedingly unprepared. They were now bidding down their examination when they had been trying to raise it ever since 1858.

Dr. Lyons strongly objected to a new motion being substituted when they had spent so much time in discussing the former one.

Dr. Pettigrew said he had understood they were to have had a discussion on preliminary education. As to Latin, what they wanted was variety. Was it the best training? He hoped they would not strike out the optional languages, by all means let them keep Latin, but not to the exclusion of other languages.

Mr. Marshall said that this was a new proposal, it abandoned the principle of the former motion. The first was exclusive, this was to comprise. They were said to be raising the standard of the examinations, he could not see it himself.

Mr. Macnamara said he could not see the necessity for this resolution which was already practically on their minutes.

After some further conversation the Council resumed without any report being sent up from the Committee.

Seventh Day.—Tuesday, October 14th.

Preliminary Examinations (continued).

After the reading of the minutes the Council went into Committee to continue the consideration of Dr. Humphry's propositions with regard to preliminary education.

Dr. Humphry obtained leave to substitute a different series of resolutions for those which had been put down in the programme, and he proposed to consider the present subjects of preliminary examination *seriatim*, moving certain modifications of the present requirements in connection with each. With regard to the first, viz., English language, including grammar and composition, he moved a resolution to the effect that this subject as such should form no part of the preliminary examination, but that the candidate should be required to answer the questions (*i.e.*, in other subjects, especially Latin) in such a manner as to satisfy the examiners that he had an adequate knowledge of English grammar and orthography. He said that this was the method adopted both at Oxford and Cambridge of testing a candidate's knowledge of the English language, and he thought it was perhaps the best test. In large schools it was held that a knowledge of Latin as a language was applicable to English. He was anxious to improve the preliminary examination by lessening its area, and he thought that by raising the standard in Latin they would at the same time secure a more thorough knowledge of English.

The resolution was briefly seconded by Mr. Simon.

Dr. Storrar said that he would deeply regret the exclusion of English as a special subject. He could not agree with Dr. Humphry that English was not a special subject of study in grammar schools. In the so-called modern schools where Greek was left out, the greatest attention was paid to the teaching of English. In some of the best and most recently established schools the boys were trained in the logical analysis of their language, and in paraphrasing plays of Shakespeare and books of Milton. In fact it had been discovered that of all subjects English was the most important factor in education, whatever might be the profession for which the pupil was destined. Dr. Storrar then went on to say that if the Council determined on a list of their own of the subjects of preliminary examinations, they would have to see that the examining bodies followed out their requirements. But they could hardly dictate to such bodies as Oxford and Cambridge, whose examinations, though requiring a higher standard in some subjects, might not include all the subjects insisted on by the Council. Their attention ought to be directed to the residuum of students who had not passed good preliminary examinations, and of such, subjects might be required which were not necessarily required by the Universities. He thought that preliminary examinations should be conducted by bodies independent of the Council and the licensing corporations, and he hoped that Dr. Humphry was not going to apply the sponge to all the preliminary examinations as they at present existed.

Dr. Humphry stated that that was not his intention.

Mr. Macnamara thought English one of the most important subjects of the curriculum. It was important that the members of a learned profession should show that they had some knowledge of their own language when answering invitations to dinner or otherwise corresponding with the public.

Mr. Teale said that they were discussing what language they should base preliminary education upon, Latin or English. He felt that the area of subjects at present required was far too large, and they ought to try and reduce it in such a way as to secure a thoroughly good training in a limited number of subjects.

Mr. Simon said that what was wanted of the student was a good practical young man's knowledge of English, and the question was, could that knowledge be better tested by an abstract examination or by the practical test of his being able to spell his words and construct his sentences correctly? To him it seemed that the latter was quite sufficient for their purpose.

Dr. Matthews Duncan agreed with Mr. Simon and Mr. Teale, feeling that in testing the student's knowledge of philology, examination in one language, and that Latin, was abundantly sufficient.

Dr. Pettigrew thought that Latin was rather overdone, too much time was spent upon it. He would like to see more importance attached to modern languages. After all, it was language that made the grammar, and not the converse.

Dr. Haldane said that every student ought to have a practical knowledge of the English language. A candidate ought to be required to write from dictation, and also to write a short piece of English composition.

Dr. Banks said that English was lamentably neglected in their schools and throughout Ireland. It had been said to him by an Edinburgh examiner once that they sent over smart clever fellows, but lamentably deficient in spelling.

Dr. Heron Watson would regret the motion being accepted. The examination was not so much to test the knowledge of the candidate as to see whether he had had a

liberal education, such as would fit him for the medical profession. He considered the study of the dead languages most important. At the present day the knowledge of the English language possessed by the boy educated at a good school was less than that of one who had been to an inferior school. He thought the former recommendation much better than the present one suggested by Professor Humphry.

The Rev. Dr. HAUGHTON spoke of the English grammar as being exquisite, but it was not studied enough. An examination in English without composition was miserably deficient. A man ought to know his own language, and English was the finest language ever spoken.

Sir HENRY PITMAN said that the Council were in great danger of falling into an error. They were proposing to dictate to the examining bodies such as the Universities and the College of Preceptors. They were assuming that these bodies did not know how to conduct an examination. They might require grammar and spelling, but to go into details of how it was to be done was almost an insult. The Council were putting themselves in a very false position.

Mr. MACNAMARA said that he thought they were already dictating to them.

Professor HUMPHRY said that his idea had been that the student was to obtain a better knowledge of English by a deeper and more careful insight into one language—Latin. He would require an additional knowledge of Latin to that already required. English was not a good subject for an examination. A better knowledge of Latin would ensure a better knowledge of English. Those who had the best knowledge of Latin were the best English scholars. Dictation was hardly the kind of thing to put men to; it only tested spelling, and so much depended upon the examiners.

Dr. HERON WATSON could see no incompatibility between their having a higher examination in English as well as in Latin.

Dr. QUAIN observed that if they did not examine in English the teachers would give up teaching it.

Professor STRUTHERS observed that some one had said that the Council had failed in their preliminary examinations; he did not think so, and he held that the work done in this matter was one of the great merits of the Council. He was in favour of a rise all round. He referred to Germany and France to show how much in advance their requirements were of those in this country, but he would not admit that either of these nations was superior to the English in intellectual ability. The professional bodies ought not to hold special examinations for medical students. He held that students were very unfairly rejected; if he did badly in one subject, say Latin, no matter how well he had done in mathematics, a man would be rejected. This he considered very unfair. The English language, including grammar, was the most important subject of all, and if he could only have one subject he should certainly choose it.

Mr. MARSHALL asked whether it was the duty of the Council or of the General Educational Bodies to settle this question. They ought not to take upon themselves to join in settling it. They should keep their minds fixed on what was essential, then on the useful, and lastly on the ornamental. He would like to see a preliminary examination in scientific subjects introduced, and would then strike out elementary mechanics from its present place and put it in that examination. The preliminary examination would then consist of the elements of education and nothing else, viz., language and mathematics. The scientific examination which would follow would deal with physics, mechanics, and chemistry, and after that would come the more strictly professional subjects. He was a stout advocate for retaining English as a distinct subject. The work of the Anglo-Saxon philologists during the past twenty years had made English a great deal easier than it formerly was, and a thorough knowledge of English would fit a man better for the profession than a knowledge of Latin. The proposal before them was inadequate as a test in English, and he objected to an examiner being called upon to perform a double function. No man ought to be called upon to examine except in his own subject. He would therefore be in favour of leaving matters as they stood.

The PRESIDENT, after referring to a conversation he had had with the late Dr. Parkes, bearing on the uneducated state of the profession, observed that the English language had in the last twenty years acquired a new shape, it had become one of the greatest of languages. He could testify to the general desire there was on the part of the Council to improve the general knowledge of the language, though they were not quite agreed as to how this would be best brought about. They ought to be careful to do nothing that would disparage the study of the English language and the great English writers. Their object was to increase the standard of general education, and the great question was whether this resolution would have that effect.

The motion was then put to the vote when there were seven for it and sixteen against it, one not voting. It was therefore lost.

Strangers were then ordered to withdraw.

Dr. HERON WATSON brought the case of a practitioner in Scotland before the Committee, and it was decided that the Executive Committee should take steps to bring the case before the Council at their next meeting.

On the re-admission of the strangers, after an hour and a half had been spent in discussing this matter, Sir HENRY PITMAN rose and said he thought that the present attempt to deal with the question was impracticable. They had been for four hours already engaged on it, and had come to the conclusion to make no alteration. Was it really desirable to entertain the idea that they could discuss this question properly and fairly during the present session? He suggested that the Executive Committee should be instructed to consider what changes, if any, were requisite on the subject of preliminary education and examination, and confer, if it seemed desirable, with the Branch Councils and report to the Council at their next sitting. If they went on this session it seemed to him that there was a danger that the business would be hurried through.

Dr. AQUILLA SMITH seconded the proposal. The question was one of the highest interest and importance, quite as important as higher branches. They ought to give it their full consideration, and should postpone it rather than run the risk of hurrying. In this way something definite would be brought up.

Mr. SIMON thought that by the course suggested they would be placed in a false position. All their minds were intent upon this subject of preliminary education, they had made good progress with it, and moreover they had entered upon it upon the motion of Sir Henry Pitman himself.

Mr. MACNAMARA asked as a point of order whether the resolution by which on a previous occasion they had decided not to refer this matter to the Branch Councils, did not preclude such a motion as the present, being almost identically the same.

Dr. PETTIGREW could not agree to refer this matter to the Executive Committee; if they did so, when the report was brought up they would have just as long a discussion as now.

The PRESIDENT saw nothing in the motion to prevent it being put.

Dr. STORRAR said he had no strong feeling on the matter. They had recently had the whole subject of preliminary education in dock, and he did not see why they should have it all over again so soon; it only tended to unsettle people, both the examiners and the candidates. The present scheme was so far good that they need not disturb it. He thought that they had taken up this subject hastily and inconsiderately. If they referred it to the Executive Committee he thought they would be very likely to get into trouble. This scheme represented twenty-five years of work, and they ought to keep quiet and see how it worked.

Sir HENRY PITMAN asked leave to withdraw his motion.

The Council then resumed.

A petition from Mr. A. A. Sadgrove for restoration to the register was received, and the Council declined to accede to the request.

On the motion of Dr. FERGUS, it was resolved to warn all the licensing bodies that forged diplomas were in existence.

Eighth Day.—Wednesday, October 15th.

Preliminary Examinations (continued).

The Council again went into committee on the question of the subjects for preliminary education.

Professor Humphry moved that English history be omitted from the subjects required. This was agreed to.

Professor Humphry then moved that modern geography be also omitted.

This was seconded by Professor Struthers.

Dr. Storrar objected to this. He thought the geography was peculiarly requisite for medical students. Medical men were called upon to deal with tropical diseases, and he could not approve of its being supposed that it was desirable that a medical man should have no knowledge of geography. The Geographical Society had founded a prize in this subject, but of late years it had not been awarded because there had not been enough competitors. There was no doubt that geography was much neglected in schools, and it was a matter of general regret amongst educated people that such was the case.

Dr. Lyons characterised this as an important and sweeping amendment. Medicine was to a large extent associated with geography, an interesting branch of it was that in connection with the geographical distribution of disease. He considered that it was a subject which educated and improved the mind, and he attached great importance to it, instancing from what wide localities the materia medica was brought together.

Dr. Chambers quoted the practice of Dr. Butler, the author of a well-known atlas, who only taught geography for a week in the year, because it had no relation to the other subjects, and was not a good training for the mind.

The Rev. Dr. Haughton had never met any boy who knew anything about it. He agreed with the view of a teacher who left out geography on the ground that it was his business only to teach such things as were useless, the pupils would learn the rest for themselves.

The motion was carried by 13 to 4.

Professor Humphry next moved that Latin include translation from specified authors, and translation from easy passages not taken from such authors. He said that the subjects whose omission he had moved were not in his opinion by any means unimportant, all were valuable. The greater the culture, the better, but they were endeavouring to determine what subjects school students should be examined in, and what were not absolutely necessary had better be left out. Too many subjects encouraged cramming. His object was to reduce the number and have them better taught. By this resolution he believed they would really lead to mental education. The teaching of a language was almost worthless if a man could not translate a passage not previously seen; he knew as a matter of fact that specified books were learnt by heart.

Mr. Marshall seconded the motion.

Professor Struthers did not like increasing the Latin, he would rather diminish it and increase all the rest. He did not believe that Latin was the best of all mental trainers, that was a tradition handed down from the middle ages. All depended on how the subject was taught, everything was educational if well taught. He denied that Latin had any advantage as a trainer of the mind, Latin and Greek were cramming subjects. Herbert Spencer's "First Principles" and Darwin's "Origin of Species" were a better training than languages. They ought to have a minimum standard in Latin; a little was useful for the nomenclature and he would retain it for professional reasons and not as a trainer of the mind. They ought not to increase a burden that would be of no utility.

Dr. Pettigrew said that they ought to have a minimum standard in Latin and not a maximum; it was not a good subject for training the mind, any subject did as well if well taught. A man should be taught things that would be useful to him. Latin was one of them but modern languages should be included.

Mr. Simon should support the motion. Education was no doubt a burden to weak-backed people, but this applied to everything and not to Latin alone. The question was whether this was useful. A certain quantity had been admitted to be essential, where were they to draw the line? He thought that hitherto it had been ridiculously low. They had omitted two subjects and they must strengthen the others.

Professor Humphry observed that Professor Struthers had not been very logical in his argument, as he had admitted that any subject if well taught was a good basis for education, and this was exactly what they were trying to secure, viz., that Latin should be better taught.

Dr. Heron Watson thought that an increased amount of Latin was most desirable, it was the very subject in which the boys had been taught at school, and the object of the preliminary examination was not so much to find out how much they knew, as to see how they had applied themselves to the study. Until the day when the peculiar kind of study foreshadowed by Professor Struthers was reached they need not consider it.

Mr. Macnamara reminded them that they had lightened the curriculum on purpose to enable them to demand a better knowledge of Latin.

The Rev. Dr. Haughton said that they were asking a poor minimum in Latin such as they certainly would not accept in regard to French if they were examining in that subject.

The motion was then put and carried.

Dr. Lyons then moved that Greek be inserted in the programme.

Dr. Banks seconded the motion. Everything that had been said about Latin he said applied with equal force to Greek. He was surprised that Professor Struthers should support a minimum standard in Latin. The remarks he had made about the nomenclature were equally applicable to Greek. Efforts had been made in Germany to Germanise the vocabulary and had failed signally. Virchow had framed a large number of words from the Greek. Modern languages had their origin in the dead languages, and nowhere was the medical student ignorant of Greek except in Great Britain.

The Rev. Dr. Haughton had saved Greek on a former occasion by proposing to make it compulsory, when Sir James Paget had tried to cut it out, and he was content that it should have a place amongst the optional subjects; if compulsory it would be a mere sham. He wanted to save it for those who knew it and loved it.

Dr. Storrar said he felt inclined to say "happy is the man who has a knowledge of Greek." For the first few years of the Council he had strenuously advocated it, and it had been a compulsory subject, but after about six years he had seen that it was hopeless, and had given it up as a compulsory subject. It was no use asking for what one could not get and what one did not expect to get. He would retain it as an optional subject, but many boys were in the modern departments of schools which they did not leave till just seventeen, and it was impossible that they should know any Greek.

Dr. Banks said that the removal of Greek was the thin end of the wedge.

Dr. Aquilla Smith said that, as a rule, boys knew very little Latin and less Greek.

The motion was then put and lost, six hands only being held up for it.

Professor Humphry then moved that the first book of Euclid with easy questions thereon be substituted for the two books at present required. This was part of the scheme of diminishing the area and improving the quality. The second book of Euclid was not a good one for examination purposes, and the first one, if the student showed that he understood it, would be much better.

The Rev. Dr. Haughton said that the second book was excellent in its way, but the algebra would make up for its omission.

The motion was agreed to.

Professor Humphry then proposed that elementary mechanics should be passed before the student was allowed to be placed on the register as a student.

Mr. Simon seconded it.

The Rev. Dr. Haughton asked if the footnote exempting the Universities would be affected by this motion, and

was informed that it would be dealt with separately afterwards.

Mr. MACNAMARA said that Professor Humphry had stated that he wanted to make the education more thorough, but this resolution would encourage sham examinations.

Mr. SIMON said that the Council had added the third footnote in deference to strong representations made at the time, but the footnote had been a failure. No machinery had been established by which to ascertain whether a man had passed in mechanics or not if he had once been allowed to be registered without. He considered it would be an immense advantage to the student in his first year to have learnt some elementary mechanics.

Mr. MACNAMARA explained that the College of Surgeons had availed themselves of the footnote which permitted a man to pass in mechanics at his first professional examination. It often happened that a man came to them from some distant part of Ireland where he had had no opportunity of learning mechanics, and so they allowed him to take it up, with other subjects, at the end of his first year, and he should certainly oppose the motion to alter that.

Dr. PETTIGREW said that mechanics certainly ought to be an elementary subject.

Dr. FERGUS observed that if a student had not passed his mechanics before commencing his professional curriculum, he was certainly overloaded with work, considering the shortness of the time.

Dr. STORRAR called attention to the fact that out of the first fifty students on the list, only fourteen had passed their examination in mechanics before being registered. If they mixed up the mechanical with the professional examinations the latter would become a farce and the mechanical examination would be spoiled.

Mr. MARSHALL said that it was evident that they wanted some such preliminary scientific examination as he had sketched out on the previous day. In Ireland they seemed to have something of the kind already. They ought to give the student the option of passing in two stages, and keep the instruments of education, *i.e.*, language separate from the science.

Professor HUMPHRY said that that was the object, that he might pass it separately from the preliminary examination.

Mr. SIMON said that some were trying to make this a postliminary instead of a preliminary examination. If a man was going to study medicine he ought to have a knowledge of mechanics beforehand ; it would be injurious to the medical curriculum to burden it with this.

Dr. HERON WATSON asked what assurance they had that men would not wholly escape that portion of the examination.

The PRESIDENT said that the question was how much was to be compulsory before a man entered on biological subjects. He thought that the subject was too intimately mixed up with the professional examination question, which had already been referred to the Branch Councils, for them to deal with.

Professor STRUTHERS said that the examining bodies must conform to their wishes. Book knowledge on such a subject was a sham ; it required demonstration. It simply meant that the students must go to school earlier.

The motion was then put, and carried by 15 to 3.

Sir HENRY PITMAN then proposed and Mr. Marshall seconded an amendment of the footnote which had hitherto enabled students to get on to the register before passing the examination in mechanics. It required that every candidate should pass the examination in mechanics before being registered, but not necessarily at the same time. Many had availed themselves of the option, and never passed at all. The licensing bodies could not be expected to see that the requirements of the Council were carried out.

Mr. MACNAMARA said that this matter was of vital importance to the College of Surgeons in Ireland, and he went over all the ground he had already been over, concluding by a hope that they would not bring the College of Surgeons into collision with the Council.

The motion was then put, 17 voting for, 3 against, and 4 not voting.

The Rev. Dr. HAUGHTON then moved a fresh footnote in place of the one that had formerly protected the Universities from the operation of this clause. He stated that Trinity College, Dublin, insisted on a year's study of mechanics as a part of the training for the Arts degree, and pointed out to the Council that not to pass some such resolution was to assert that they would not accept the judgment of a body who had much better knowledge than they had themselves, and to refuse a body who aimed at a much higher standard than that contemplated by the Council.

Several members took part in the discussion on this point, Mr. MACNAMARA and Dr. HERON WATSON asking how a man was to be prevented from changing his mind after he had been put on the register as a student of Trinity College and without taking a degree in Arts, or ever passing their examination in mechanics.

Dr. STRUTHERS objected on the ground that it afforded a back door, which was always undesirable. Sir HENRY PITMAN read the minutes relating to the original passing of the footnote, and was in favour of leaving it just as it was. In the end Professor HAUGHTON withdrew his motion, and Professor STRUTHERS moved that the footnote in question should be erased, and this was carried.

The next clause was that the optional subjects be omitted.

Professor HUMPHRY said that as he perceived that the sense of the Council was adverse to the motion he would not propose it. On this an animated discussion took place, some declaring that this was only part of the motion which Professor Humphry had brought forward, others declaring that it was impossible to compel a person to propose a motion of which he had given notice, though it was competent for any one else to do so. Mr. Macnamara tried to act on this principle, but the President ruled that he could not propose it as he had not given notice of it.

The PRESIDENT ruled that as the case was novel, and there was no rule applicable to it he should call upon Professor Humphry to bring forward his motion, as it might be a dangerous precedent to allow a person who had brought forward a motion to withdraw the last part of it when some clauses had already been agreed to.

Professor HUMPHRY explained that he had only been anxious to save the time of the Committee, and it was not on account of any change in his views that he had proposed to leave the matter alone. He had no disrespect for the optional subjects, but he was anxious to diminish the number of subjects the student had to take up, and this was part of the scheme.

Mr. MACNAMARA seconded the motion. He had voted for an increased amount of Latin on the distinct understanding that this subject would come up. He regarded modern languages as of no use. He wished to lighten the burden on the students, and they were only keeping in sham subjects in this list.

Dr. PETTIGREW defended the advantages of a knowledge of French, and referred to its peculiarities of construction. The optional subjects gave a student a good opportunity of showing his knowledge.

Dr. BANKS said they certainly ought to retain the modern languages as they were of the greatest possible value.

Professor STRUTHERS moved that the optional subjects be retained, and then a man who knew some Greek could get credit for it. He thought it ought not to be said that they were not going to recognise modern languages in any form. He would like to see zoology included.

Dr. PYLE seconded the amendment.

Mr. SIMON regarded this as an essential part of the scheme. Two influences were represented in the optional subjects, one was he said the crotchets or idiosyncrasies of members, and the other, as far as the candidates were concerned, represented the element of chance. If they had optional subjects why not have things in general—Shakespeare or Milton for instance ? Mostly, he contended, in this way no real knowledge was gained. The subjects would have been learnt by the student equally without the examination. They were running a great risk of losing the compactness of their examination. All knowledge was useful for the student of medicine, and chance ought not to be rewarded.

Dr. Pettigrew said that Mr. Simon assumed that all medical students were of the same conformation. They ought to encourage idiosynerasies and foreign languages.

Mr. Marshall denied that they were encouraging sham knowledge, but giving an opportunity to the students. These many-sided men were just the sort of people whom they wanted in the profession. They had settled the essential subjects and were now dealing with the ornamental ones. They must retain the optional subjects.

The Rev. Dr. Haughton would support the optional subjects for the sake of the Greek; he thought logic and elementary chemistry were not very good subjects, and zoology would be better than botany.

Sir Henry Pitman asked whether they could not retain the optional subjects and make them all optional, none compulsory; it seemed hard not to give a man credit for them if he knew them.

Professor Humphry's motion was then put, 7 voting for it and 11 against. The motion was therefore lost.

Professor Struthers then moved that zoology be added to the list of optional subjects. This was agreed to.

Mr. Macnamara moved to reject logic.

Dr. Storrar would regret to see logic turned out; it often happened that a good mathematician was a poor logician and he who was good in logic was weak in mathematics. Only a very small amount of men would take up logic, but there was no object in rejecting it from the list.

Mr. Simon said that clearly a large range of subjects should be allowed. It would be an odd course to take to exclude logic, especially when so many of the foreign schools insisted upon it as an essential.

Mr. Macnamara asked leave to withdraw his motion and the Council then resumed and adjourned.

Ninth Day—Thursday, October 16th.

Preliminary Examinations (continued).

The Council went into Committee.

Professor Struthers' amendment, that the subject of the preliminary examination might be passed at one or several examinations, was before the Committee.

The Rev. Dr. Haughton said this would entirely subvert the object of Professor Humphry's resolution. It would be still further lowering the standard, and would, in fact, be like helping the lame ducks over the stile.

Dr. Heron Watson supported Professor Haughton. The object of the examination was simply to test what the candidate had learnt at school, and whether he had such knowledge as would fit him for the medical profession.

Dr. Haldane said that practically a very small number would pass the whole examination, not ten per cent.

Professor Struthers observed that classics and mathematics had no relation to each other; they had adopted the principle in regard to the professional examinations, and it was equally if not more applicable to the preliminary examination. He did not, however, mean to encourage men to go in for bits of the examination at a time.

Dr. Banks said that they did not re-examine men in Dublin in all subjects if they had done badly in one. It was unfair to make them keep up useless knowledge.

Dr. Storrar said that their object had been to secure thoroughness. A boy ought to be required to show knowledge, that is an intelligent grasp of his subject. It was pernicious to allow a boy to come up and take his chance of getting through in one or other subject. He asked Dr. Haldane whether the Scottish scheme did not perhaps encourage a low standard by being too indulgent. Nothing would so tend to a want of preparedness as this.

Dr. Pettigrew would support Professor Struthers.

The Rev. Dr. Haughton said that if this was carried, the preliminary examination would be even more contemptible than at present. They ought not to degrade it further.

Dr. Heron Watson said the motion, if carried, would encourage cramming.

Dr. Aquilla Smith thought examination by instalment a great evil.

Dr. Fergus would certainly not support the motion if he thought it would lower the standard. He believed in future the student would know his subject and not be crammed in it.

Mr. Marshall referred to former resolutions, even so lately as March last, when the opposite principle had been affirmed by the Executive Committee. It was highly desirable that some decision should be come to, their custom ought to be uniform.

Professor Struthers said the examiners would be less afraid to reject a man under the scheme, and so the standard would be raised. He was of opinion that in Scotland they were superior in general education. If a man did well in one subject he should be exempt in that.

The motion was put and carried by 10 for, 8 against.

The Council then resumed.

Mr. Marshall then moved

"That the following Resolutions, passed by the Council in Committee, with regard to the Preliminary Examination of Medical Students, be received and adopted:—

"That the subjects now required for the Preliminary Examination, as set forth in the present Regulations of the Council, be modified so as to stand as follows:—

"No person shall be allowed to be registered as a Medical Student unless he shall have previously passed a Preliminary Examination in the subjects of General Education as specified in the following list:—

"(1) English Language, including Grammar and Composition.

"(2) Latin, including Grammar, translation from specified authors, and translation of easy passages not taken from such authors.

"(3) Elements of Mathematics, comprising (*a*) Arithmetic, including Vulgar and Decimal Fractions; (*b*) Algebra, including Simple Equations; (*c*) Geometry, including the first book of Euclid, with easy questions on the subject-matter of the same.

"(4) Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. This subject may be passed, apart from other subjects, at an Examination conducted by any one of the recognised examining bodies.

"(5) One of the following optional subjects:—

"(*a*) Greek, (*b*) French, (*c*) German, (*d*) Italian, (*e*) any other Modern Language, (*f*) Logic, (*g*) Botany, (*h*) Zoology, (*i*) Elementary Chemistry."

"That the subjects of the Preliminary Examination for Medical Students be allowed to be passed at one or more Examinations."

This was agreed to.

The clauses were then taken singly. A footnote to the English clause, going into details about dictation, was thrown out by a large majority, on the motion of Rev. Dr. Haughton. The others were carried without opposition, except that relating to Latin, on which Dr. Lyons and Dr. Banks proposed that Greek should be inserted, which was negatived, and the clause on the optional subjects, which led to some discussion, but was finally agreed to.

The Universities in Relation to the Council.

Professor Humphry said that it was exceedingly important that the Council should not set itself in direct opposition to the Universities unless it was absolutely necessary. It had been a great principle with the Council that the Universities should conduct these examinations, and it would be most unwise for the Council to pass resolutions which would interfere with men going up to the Universities. The latter were the best judges and must be left to conduct their examinations on the plan they found best for general education. The Council would be driving students from the higher examinations of the Universities to lower examinations in other parts. The Council should be extremely careful how they did anything to interfere with the Universities, and they should not throw any difficulty in the way of the University of Dublin. He moved as a resolution that the examinations in general education conducted by the Universities be accepted as heretofore, and that if the examination in mathematics was higher, and elementary mechanics was not included, a knowledge of that subject would be accepted at a subsequent date.

Dr. Banks seconded the motion.

Dr. Pettigrew regretted that this subject should be re-introduced, when they had voted on the matter the day before.

Mr. Macnamara said that they were providing one mode of examination for one set of men and another for another. They had the day before laid down the principle that a man must pass in mechanics before commencing his professional education, and it ought to apply to the University student just as much as to others. What security had they that the man would go on with his University career? The Trinity College men were being excluded because they were having a better education.

Mr. Simon objected to mathematics being accepted for mechanics. The vote on the subject on the previous day had been most deliberately given. A little adjustment for exceptional cases might be necessary; but such should be exceedingly carefully guarded. What they wanted was four years of professional study, exclusive of mixing with preliminary subjects. He thought the matter should be deferred in order that the members could confer with their respective Universities, and make exception to cover special cases and no more. It was essential that they should not go upon a wrong principle.

Professor Struthers said a year would elapse before the scheme came into operation. They could not make exceptions for special bodies.

The Rev. Dr. Haughton characterised the examination in mechanics as flimsy. The University of Dublin would not be dictated to by the Council as to how they should teach mechanics, and would not think anything of their opinion. The only result would be that their students would not register.

Professor Humphry reminded the Council that they could not make laws, only recommendations. The Council should beware of running in opposition to the Universities. The University of Cambridge had formerly been at great pains to keep the recommendations of the Council, and had instituted a special junior examination especially for medical students, and not one single candidate had passed although it was infinitely easier than the previous examination. They ought not to let minor points stand in the way of what was much more important, viz., to encourage medical students to have a university education. The advantages of mixing with other young men could not be over-rated, and no slight detail would compensate for losing them.

Mr. Marshall hoped they would defer the subject, as it was evident they would not be unanimous.

The motion was put and lost, 6 voting for, and 9 against.

It was then agreed to send a copy of the amended regulations to each of the licensing bodies, Dr. Storrar observing that they had added nothing, and made all round reductions.

On the motion of Professor Struthers, the junior local examinations of Aberdeen and Glasgow were admitted, subject to the approval of the Executive Committee.

Strangers were then ordered to withdraw, and the Council received a report from their solicitor, and considered a case of counterfeit diplomas which was referred for further legal advice.

Dr. Quain presented a return showing the additional qualifications held by Licentiates of the Royal College of Physicians of London registered during the years 1882 and 1883.

Dr. Lyons made a statement on a series of resolutions which he put on the order of business, but which he was allowed to withdraw.

A letter was read from the Master of the Society of Apothecaries, which was practically a protest against the sanction of the Council having been given to the co-operation of the two Colleges to the exclusion of the Apothecaries' Society.

On the motion of Dr. Lyons a Select Committee was appointed to consider the possibility of providing a more suitable place of meeting for the Council.

After some valedictory remarks from the President, who again thanked the Council for the honour they had done him in electing him a President for the third time, the Council adjourned, and in accordance with their usual custom met again and read the minutes of the meeting just concluded.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, October 10th, 1884.

Sir Andrew Clark, Bart., M.D., President, in the Chair.

The President called attention to the new volume of the "Transactions" and made a few introductory remarks upon the coming work of the Society.

Nerve Symptoms in Rheumatic Affections.

Dr. W. B. Hadden read a paper on this subject. The first case was one of glossy skin following on an acute joint affection. The patient, a woman, aged 35, was under the care of Dr. Bristowe, at St. Thomas's Hospital. A year before admission she was attacked with articular rheumatism which lasted for six months. She was jaundiced for six weeks after the attack. A month before admission she had rheumatic pains in the knees, back, and hands. On examination no swelling or tenderness of joints was found, but she complained of rheumatic pains in various parts. All the fingers of the right hand were extended, the fore and middle fingers were wasted and sensation a little impaired. She could only flex them very slightly, but could bend ring and little fingers more readily. She could not separate the fingers of the right hand so well as those of the left. All the fingers of the right hand were wasted, smooth, and shiny, and the nails were long and filbert-shaped. There was atrophy of the muscles of the forearm and of the thenar and hypothenar eminences. She rapidly recovered under the use of the continuous current. The second case was that of a young woman, aged 26, who had had swelling and tenderness of various joints, but chiefly of the right fingers, for a week before admission. She complained chiefly of two small round superficial sores, one on the extensor surface of the second joint of the right little finger, and the other on the extensor surface of the left middle finger, near the base of the nail. They appeared about the time the joints became affected, were very tender and itched a good deal. During the last six months the catamenia had become irregular, and this fact seems to support Dr. Hadden's idea that there is a relation between menstrual disorders and joint affections. The third case was that of a man, aged 57, who was the subject of chronic rheumatoid arthritis of some months' standing. His face was curiously expressionless, and the whole body was held stiffly, with a marked forward inclination. The skin of both hands was smooth and shiny. The ends of the finger joints were much thickened, and there was extensive dislocation of joints. Both of the hands were flexed at the meta carpo-phalangeal joints but the fingers were hyper-extended. There was slight affection of some of the larger joints. There was very extensive anæsthesia of both upper extremities. The prick of a pin was not felt over the front and back of left leg and dorsum of left foot, but elsewhere in the lower limb there was no impairment of sensation. The interossei and extensors of both forearms were atrophied. They responded to the interrupted current, but less actively than normally. The left extensor communis digitorum had the reaction of degeneration. The skin and tendon reflexes were exaggerated everywhere and there was double ankle clonus. The gait of the patient was spastic; an extension of the inflammation from the joints to the nerves might partially account for the various nerve disorders, but the author

believed that it was more likely that there was an independent rheumatic neuritis. The nerve disorders were neither concerned with the causation of the gout affection, nor dependent upon it. In the two first cases the trophic disorders, occurring during the subsidence of the gout affection, seemed to be a relapse affecting the nerves. The author referred to a case of anæsthesia in the course of the ulnar nerve, which he had observed in a patient convalescent from acute rheumatism. The muscular atrophy, affecting chiefly the extensors, seemed to be trophic. In shoulder-joint disease the wasting of the deltoid, and in hip-disease the wasting of the glutei supported the law that the extensors suffered more than the flexors. It was urged by some that this depends on some selective action of the spinal cord, but the cases of lead palsy and alcoholic paralysis, in which the disease is due to the peripheral nerves, renders it possible that in joint affections a similar cause holds good. The occasional occurrence of rigidity and ankle clonus, perhaps, depends on affection of the spinal cord, although the author believes that such conditions are sometimes due to lesion of the peripheral nerves. The duration and intensity of the joint affection has nothing to do with the cause of these trophic disorders. The cases given neither support nor disprove the theory of articular rheumatism.

The PRESIDENT called attention to Dr. Hadden's statement that loss of sensation does not occur in rheumatism. From his own experience in the out-patient department of the London Hospital he had continually observed such lesions as loss of power and sensation. In private practice he had also noted it. He was not familiar with the glossy skin condition in rheumatism but had observed it frequently in gouty cases.

Dr. BARLOW referred to a case of rheumatism with hyper-pyrexia in which loss of sensation was observed in the course of the ulnar nerve with wasting of muscular tissue. In another case there had been a very high degree of wasting of the interossei muscles. Both these cases recovered. A boy with mitral disease of rheumatic origin, presented paralytic symptoms which could only be explained by assuming some lesion of the brachial plexus. He believed that all these cases were due to rheumatic inflammation of the sheath of the nerves.

Dr. STEPHEN MACKENZIE, without impugning Dr. Hadden's diagnosis, thought that some of these cases were in reality due to disease of the spinal cord. He related a case sent in to hospital as an instance of acute rheumatism, in which incontinence of urine and bedsores followed with muscular wasting. The reaction of degeneration was found in the wasted muscles but the case eventually recovered.

Dr. WILBERFORCE SMITH mentioned a similar case to that related by Dr. Mackenzie.

Dr. ORD referred to a paper read by himself at a former meeting of this Society on the influence of nervous disorder upon the diseases of joints. Since reading that paper he had been inclined to take a wider view of the subject. He thought however that in a certain series of cases there could be no doubt of the central origin of the disease. Charcot had published cases in which the wasting of muscular tissue was far in excess of the extent of the joint lesion. He thought that Dr. Hadden's case would add materially to the difficulties in making a diagnosis in these joint affections, but he considered that we are still too apt to classify such cases as rheumatoid arthritis.

Dr. HADDEN, in reply, observed that no cases of rheumatic anæsthesia had been published, although, being so familiar to the President and Dr. Barlow, it was evident that they occurred frequently.

Preputial Calculi.

A paper on preputial calculi occurring among Fiji Islanders was read by Mr. JOHN CROFT, but the author has not provided an abstract of the cases for publication. No discussion followed the reading of the paper.

Urticaria Pigmentosa.

Dr. RADCLIFFE CROCKER showed the drawing of a case of this disease occuring in a girl, aged 4½ months. She came as an out-patient to University College Hospital, on Sept. 22nd, 1883, with a history of its having commenced when she was 3 weeks old, coming out first as tubercles singly or in groups. Each tubercle was the size of a small pea, of a yellowish brown colour, with a pink areola; on some of them a small bulla was formed, the contents of which got absorbed in a few days, leaving a permanent tubercle of yellowish red, some of them got larger, and the older ones paler, forming lesions varying in size from a hempseed to a bean, and in colour from a brownish red to a pale fawn, but mostly yellowish; they were not pruritic at first, but latterly itched at the period of evolution. They covered every part of the body, including the palms and the soles, but were thickest upon the trunk and neck; a few shrunk a little, but most remained unaltered, except that fresh vesicles formed on some of them; there were never any ordinary wheals, nor was fictitious urticaria present. The child died of whooping-cough and bronchitis in May last, but signs of improvement in the skin had commenced about a month before death. In reviewing this and the other nineteen published cases, Dr. Crocker summarised the facts known about the condition, and remarked that while cases like Dr. Tilbury Fox's worst and his own were very unlike urticaria, the intermediate cases brought it into closer relationship with that disease; moreover, nearly everyone of the special features of urticaria pigmentosa were seen in exceptional cases of ordinary urticaria. The remarkable point was that in this disease all these rare symptoms combined in one individual to form a definite clinical variety.

Perforation of the Vermiform Appendix, with Peritonæal Abscesses: Death after a Long Interval from Pyæmia.

Dr. D. W. FINLAY read a case with the above title. John L., a baker, was admitted into the Middlesex Hospital on January 4th, 1884. He complained of severe pain over the whole abdomen, which was moderately distended, tender and tympanitic. The areas of liver and splenic dulness were normal. Heart and breath sounds were normal. Tongue dry and coated, with a brown strip down the centre, cheeks flushed, lips dry and cracked. Pulse was 96, compressible, temperature 99·6°, respiration 24, and entirely thoracic. The urine was turbid with lithates, and very acid, specific gravity 1,034, free from albumen and sugar. As to history, he stated that he had had a similar attack three years previously, suffering from abdominal pain, with sickness and feverishness. Otherwise his health had been good. His present illness came on a week before admission with griping pains across the lower part of the belly, followed by vomiting, headache, and diarrhœa. He was treated with opium, and put upon a diet of milk and beef-tea, and three days after admission appeared much better; the general tenderness of abdomen had disappeared, but there was a spot midway between the costal margin and iliac crest on left side, where tenderness remained, and the percussion note was dull. On January 9th his bowels were opened for the first time after admission, the motions being loose and light in colour, with a few small scybala. During the night he had been seized by pain in both parotid regions, and this was followed by swelling and tenderness, with inability to open the mouth. Both swellings suppurated, and were incised; his temperature slowly rose, and he became delirious, and sank somewhat suddenly on January 16th. He had had no rigors. At the *post-mortem* examination three large and as many small abscess sacs were

found within the peritonæum, the oldest-looking being round the vermiform appendix, which was perforated about half way from its attachment. The appendix was plugged by a small mass of fæcal matter on the cæcal side of the perforation. The peritonæal surface generally showed old fibrous bands and greasy-looking flakes uniting the coils of intestine together, with some recent injection, but almost no recent lymph. The other organs were fairly normal, except that the lungs were œdematous, and the left pleura contained a quantity of clear serous fluid. The case seemed interesting from the prolonged latency of the disease, the perforation of the appendix having probably taken place on the occasion of the previous attack, adhesions being then formed which prevented for the time a fatal result. It was certain at all events that the abscess sacs were of very considerable age, and it was a striking fact that the man should have been able to go about his daily work apparently in good health with such a condition of his abdominal cavity.

Dr. MAHOMED had been lately considering the subject of recurrence of peri-typhlitis and had been proposing to himself to perform an operation for removal of concretions from the cæcum by means of abdominal section. He had designed what he considered to be a suitable operation, by practice in the *post-mortem* room. He found that by means of an incision, as for ligature of the external iliac artery, the vermiform appendix could be easily reached, in some cases without opening the peritonæal cavity. In conjunction with Mr. C. J. Symonds he had successfully removed a calculus from the vermiform appendix of a patient suffering from recurrent attacks of peri-typhlitis. He thought that a certain amount of induration was a necessary feature in such a case, to act as a guide during the operation. He quoted Professor Austin Flint's observation of the loss of hepatic dulness in cases of cæcal perforation. Such a sign, if true, was a useful point in diagnosis. In reply to the President he said that the calculus which he had removed was mainly phosphatic.

Dr. C. THEODORE WILLIAMS mentioned a case in which a localised peritonitis from perforation of the appendix was diagnosed. The patient recovered, but after his subsequent death from pneumo-thorax, it was found that a small and perfectly closed sac had become formed around the seat of the ulceration. Looking at the frequency with which concretions might take place within the vermiform appendix and the numerous instances of recovery after peri-typhlitis which had been recorded, he thought we ought to pause before considering such a serious measure as operation and be quite sure that recovery in any other way was impossible.

The PRESIDENT expressed the gratification of the Society on seeing Dr. C. Theodore Williams again upon the scene after his long and serious illness and offered him congratulation on his recovery.

Mr. HOWARD MARSH urged the importance of early recognition in these cases. He fully agreed with Dr. Mahomed in the advisability of operating in such cases and he believed that in course of time the operation would become a recognised practice. He pointed out the possibility of the anatomical relation of the vermiform appendix, varying with respect to the peritonæum. The first step in diagnosis must be to determine this relation. He mentioned a case lately seen in which perforation of vermiform appendix was not found when it had been diagnosed.

Mr. BRYANT believed that the operation suggested by Dr. Mahomed was the best that could be devised in such cases. He thought however that an exact diagnosis of the position of the vermiform appendix was not possible. The inflammation generally begins in the connective tissue around the vermiform appendix, in other cases the ulceration is in the cæcum itself and spreads around it. Suppuration may occur and pus may burrow its way in all directions, in which case the result is almost always fatal sooner or later. He thought that the practice of early incision was right and mentioned three cases in which pus had been evacuated by this means. The diagnosis was not difficult on the whole, but he thought that a very valuable symptom, that of pain in the course of the anterior crural nerve, was not sufficiently recognised. In one suspected case he had found that by using forced extension, pain was produced in the inflamed cæcum, thus indicating the seat of lesion. He should have occasion elsewhere to refer to this subject, but suggested that this question of early operative interference in peri-typhlitis should be seriously considered.

Mr. CHRISTOPHER HEATH thought that the diagnosis of perforation of the vermiform appendix outside the peritonæum was generally rendered easy by the occurrence of emphysema along the course of the cæcum.

Mr. R. W. PARKER mentioned a case of a boy who had injured his abdomen when suffering from inability to pass water. Vomiting ensued for twenty-four hours before death. The vermiform appendix was found to have been perforated, several hard concretions lying within it. There was local peritonitis and general peritonæal inflammation of more recent date.

Dr. MAHOMED observed that he would put aside the question of operating during an attack of peri-typhlitis. He thought that an operation would only be admissible between the acute attacks.

Dr. LONGHURST mentioned a case where five attacks occurred in two years, ending in ulceration and abscess. He asked if any treatment could be suggested to prevent the liability to such recurrence.

Dr. FINLAY referred to the observation of Dr. A. Flint, mentioned by Dr. Mahomed, and said it was familiarly known at the Middlesex Hospital that intestinal perforation might lead to obliteration of hepatic dulness.

The following living specimens were exhibited:—

Congenital tumour of the arm in an infant, by Mr. BARKER.

Obliterative arteritis, by Mr. PEARCE GOULD.

Bullous iodide eruption, by Dr. RADCLIFFE CROCKER.

Results of pseudo-hypertrophie paralysis, by Dr. BARLOW.

Pigmentation of tongue, by Dr. J. K. Fowler.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

SIR,—Holding views which are to a very large extent contrary to those put forth so eloquently by Dr. Crichton Browne, I find, on serious consideration that, in common with many other medical writers on this topic, these views are drawn from general impressions which have been gradually forming unconsciously during the examination of a large number of children, and not from a collection of instances in which the mother's suggestion of over-work has been noted as a determining cause of disease, for what it is worth. Without a special course of enquiry devoted to this particular question, it is obviously impossible to ascribe any bounds to the influence of educational pressure, or even to affirm or to deny its existence in the elementary schools. It is possible, however, to state that my experience leads me to think that mothers who do not appreciate the importance of any kind of education, frequently are disposed to attribute the blame wholly unnecessarily to the influence of school work. The complaint is by no means uncommon, but it is unusual, so far as I have seen, to find that it is well founded, or that the school work can even in the remotest way be charged with producing diseases for which other simpler exciting causes can be found. I am far from saying that over-work, and over-excitement attendant on examinations are inoperative for evil, but the cases which have come under my notice are very few and far between, coming rather as abnormalities to indicate the employment of a wrong system in special cases, instead of crowding into our out-patient rooms daily. Indeed, so few cases have I seen, that when some years ago writing a paper on "Educational Pressure," I found that all my instances were drawn from medical students instead of from my out-patient room; and even then, the mischief appeared to me to be far more due to spasmodic efforts

than to the total amount of work done, to the fallacious tendency of cramming into a short period before the examination the energy which should have been distributed over a lengthened term.

I do not imagine that Dr. Crichton Browne is not perfectly sincere in his methods and statements, but it appears to me that his method of enquiring for the commonest symptom, headache, was particularly prone to mislead. By leading questions, almost any child may be induced to say it has pain in any desired locality. Certainly the cases of headache I have met with at the Evelina have more commonly been due to malnutrition or constipation than to over-work. I have only seen one hospital case in which the headache and langnor was obviously produced by school; the wrong system employed in that instance could have had no other result. The child lived some way from her school, and had to hurry to and fro directly after her meals; she had all her work in one room, and remained seated on the same form through the whole morning, and had night-work to do at home—an accumulation of evils hardly to be met with at the present time. This has been my one *undoubted* case; in other instances I have suspected it, but they have been rare, and I cannot but feel, from all I have seen, that the benefits resulting from our elementary schools infinitely outweigh the importance of the few cases of temporary inconvenience produced—indeed, I am quite prepared to agree with the writer of a recent letter in the *Times*', in thinking that the true causes of the large majority of cases of so-called educational pressure are to be found rather in faulty hygienic conditions than in over-work and cram.

I am, Sir, yours, &c.,

NESTOR TIRARD.

Physician to the Evelina Hospital for Sick Children.

King's College.

GASTROSTOMY.

[To the Editor of the Medical Times.]

SIR,—Absence from town has prevented my seeing your issue of October 4th till to-day. I am gratified to find that in your notice of the second volume of my book on "Diseases of the Throat and Nose" my endeavours to do justice to other workers are fully acknowledged. You are, however, good enough to invite my attention to one apparent failure in this respect, when you say that in treating of gastrostomy and the improvements in the details of that operation introduced by Mr. Howse, I might have "more clearly noted that the essential point in its success, viz., the delay in making the opening into the stomach until after adhesions have formed, was entirely original in his hands." Although, so far as I am aware, Mr. Howse himself has not advanced any such claim, I have assuredly no wish to deprive him of any portion of the honour to which he is fairly entitled, nor do I seek to deny his *subjective* originality in the matter. For my own justification, however, I beg to refer my critic to the report of a gastrostomy performed by Sédillot so long ago as 1853 (see the *Gazette Médicale de Strasbourg* for that year, p. 69), in which the first part of the operation was done on the 20th of January, whilst the stomach was not opened till the 25th. The reason for the delay is given in the following words, which, curiously enough, are an almost literal anticipation of those used by the reviewer: "On remet l'incision de la paroi stomacale à l'époque où des adhérences se seront formeés entre cet organe et les parois de l'abdomen." I may add that Egeberg himself, who is admitted to have been the first to suggest the operation, insists on the advisability of allowing time for the formation of firm adhesions before opening the stomach. (See his paper on the subject, read before the Medical Society of Christiania, May 8th, 1837).

I am, Sir, yours &c.,

MORELL MACKENZIE.

Harley Street, W., Oct. 12th, 1884.

MEDICAL NEWS.

THE ROYAL COLLEGE OF SURGEONS.

THE first ordinary meeting of the Council was held on Thursday last, Mr. Cooper Forster, President, in the chair. The sanction of the Medical Council to the scheme of co-operation between the Colleges for purposes of examination was announced. The revised regulations as to the curriculum are to date from the 1st instant. Mr. Forster, Mr. Marshall, and Mr. Savory were appointed representatives of the College on the Committee of Management of the Conjoint Board, and to report on all the arrangements of the scheme. Mr. John Wood was re-elected on the Court of Examiners, and Mr. H. Moon was elected a Dental Examiner. A letter of condolence was ordered to be written to Lady Wilson. A report from the solicitors of the late Sir Erasmus Wilson was read, informing the Council that they were appointed residuary legatees under the will. A letter from Lady Wilson, on behalf of her late husband, was read, thanking the Council for the Gold Medal of the College which had been conferred upon him. It transpired that the news of the bestowal of the Medal reached Sir Erasmus about 48 hours before his death. A letter from Mr. Wheelhouse on the uncertain results of the College examinations was read; it was referred to the above-named Committee.

Mr. Ebenezer Bryceson's diploma of membership, dated April 26th, 1884, was recalled, and declared to be void; he accordingly ceased to be a member of the College, under Sec. 22, Vict. 7. A committee of the members of the Council was appointed to consider the urgent need of additional accommodation for examination purposes. It was understood that one of the objects in view was to avoid interfering with the use of the library.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology, at a meeting of the Board of Examiners on the 13th instant, and when eligible will be admitted to the Pass Examination, viz.:—

Messrs. J. L. Davison and E. Furrer, of the Toronto School; J. Z. Torres, University of Colombia; F. R. Ozzard, London Hospital; W. H. Stevens, Bristol; G. F. Johnston and J. E. Davies, University of Edinburgh; S. H. Harrington, Liverpool; G. W. Rowe, Cambridge; J. A. Nowell, Leeds; T. A. Robson, Newcastle; and W. A. Loxton, Birmingham.

Ten candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, and two for six months.

The following gentleman passed on the 14th inst., viz.: —

Messrs. W. W. Paterson and J. Hughes, Glasgow; H. T. Evans, London Hospital; R. Bullock and A. J. Bulger, Birmingham; E. H. Young, University College Hospital; A. S. Brewis, C. W. Steenberg, and T. Lund, Newcastle; E. T. Wynne, Cambridge; A. Leche, Bristol; J. T. Harvey and W. J. Morton, Edinburgh.

Ten candidates were referred for three months, and one for six months.

The following gentlemen passed on the 15th inst., viz.:—

F. Pain, C. S. Pethick, W. W. Ewbank, P. H. V. Hammersley, A. de Lisle, and F. R. Miller, of St. Bartholomew's Hospital; L. Raby of the London Hospital; P. B. Mackay and H. R. Mansell, of St. George's Hospital; E. Jennings and L. W. Pockett, of University College Hospital; J. W. Sprigge, of St. Mary's Hospital; W. F. M. Shells, R. Thompson, and W. H. Harvey, of Guy's Hospital.

Six candidates were referred for three months, and one for six months.

APOTHECARIES' HALL.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a Certificate to Practise, on Thursday, October 9th, 1884:—

Jno. William Lynch, 372, Commercial Road, E.

NAVAL MEDICAL DEPARTMENT.—The following appointments have been made at the Admiralty:—John K. Conway, Staff Surgeon, to the *Himalaya*; Thomas L. Horner, Staff Surgeon, to the *Dreadnought*; George D. Twigg, Surgeon, to the *Mallard*; Alexander J. J. Johnston, Surgeon, to the *Dreadnought*; William S. Lightfoot, Surgeon, to Haslar Hospital.

DEATH OF MR. WILLIAM EPPRETT.—Some of the many visitors to the Museum of the Royal College of Surgeons will be sorry to hear of the rather sudden death, on Friday last, of this kind and zealous assistant in the Museum, ever ready and most willing to find and point out to enquirers the particular preparations which they desired to inspect. Those of his past and present colleagues able to leave the examinations now going on at the College, attended his funeral at Kensal Green, on Thursday last.

APPOINTMENTS.

AITCHISON, HENRY HYSLOP, M.B., L.R.C.P., L.R.C.S., and L.M. Edin. — Medical Officer to the Wallsend District, Tynemouth Union, *vice* Dr. James Aitchison, resigned.

BERINGER, JOHN JACOB, F.C.S. — Analyst for the Borough of Falmouth.

DONALD, ARCHIBALD, M.A., M.B., C.M., M.R.C.S.—House Surgeon and Resident Obstetric Assistant Surgeon to St. Mary's Hospital, Manchester.

ELIOT, E. F., L.R.C.P. and L.M. Edin., L.S.A. Lond.—House Physician to the Queen's Hospital, Birmingham.

HARTRIDGE, GUSTAVUS, F.R.C.S.—Consulting Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham, *vice* Henry Power, F.R.C.S., resigned.

KITE, E. W. D., M.R.C.S., L.S.A.—House Surgeon to the West Bromwich District Hospital, *vice* R. Aneas Delaney, L.R.C.P., re-resigned.

MORRIS, DAVID WILLIAMS, M.R.C.S. Eng., and L.K. and Q.C.P. Ire. —Medical Officer to the Third District, Dursby Union, *vice* Mr. A. S. Connellan, resigned.

NEWMAN, D., M.D., C.M., Glas. and F.F.P.S.—Surgeon to the Dispensary for Diseases of the Throat, Glasgow, *vice* Dr. Eben Watson, resigned.

OPENSHAW, T. H., M.B., L.R.C.P.—Resident Accoucheur to the London Hospital.

RIDLEY, G. W., M.B., Dur. M.R.C.S.—Senior House Surgeon to the Ingham Infirmary, South Shields, *vice* S. Lowes, M.B., L.R.C.S., resigned.

SMAILES, THOMAS, L.R.C.P. and L.M. Edin., M.R.C.S. Eng. — Medical Officer to the Honley District, Huddersfield Union, *vice* Mr. Andrew Daly, resigned.

SPICER, ROBERT HENRY SCANES, M.D. St. Andrews, L.R.C.P. Edin., and M.R.C.S. Eng.—Medical Officer to the Second District, South Molton Union.

TENNANT, CHARLES, M.R.C.S. Eng.—Medical Officer to the Newbottle District, Houghton-le-Spring Union, *vice* Mr. George Chalmers, resigned.

WALLER, C. B., M.R.C.S., L.S.A. Lond.—House Surgeon to the Westminster Hospital, *vice* A. Scanlan, resigned.

VACANCIES.

ABERYSTWITH INFIRMARY.—House Surgeon. (*For particulars see Advertisement.*)

BRISTOL GENERAL HOSPITAL.—House Surgeon. Salary, £120 per annum, with board, washing and residence in the house. Candidates must be Members of the College of Surgeons of London, Edinburgh, Glasgow or Dublin, and also Licentiates of the Apothecaries' Company of London or Dublin, or some other recognised medical qualification and must produce testimonials of good moral character and ability and must send certificate of registration. Applications to be sent to the Secretary, on or before October 27th.

CHICHESTER INFIRMARY.—House-Surgeon and Assistant Secretary. Salary £100, with board, washing, and lodging. Applications, with testimonials, to be sent to the Chairman of the Committee, on or before October 25th.

CLUTTON UNION.—Medical Officer for the Cameley District and the Workhouse, in succession to Mr. W. B. B. Perrin, resigned. Area, 3,438 acres. Population, 798. Salary, £14 per annum; for Workhouse, £60 per annum.

EAST WARD UNION.—Medical Officer. (*For particulars see Advertisement.*)

GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, LONDON, N.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

HALIFAX UNION.—Medical Officer to the Skircoat District, in succession to Mr. G. E. Scholefield, resigned. Area, 3,753 acres. Population, 12,763. Salary, £35 per annum.

HULL BOROUGH ASYLUM.—Assistant Medical Officer. (*For particulars see Advertisement.*)

SHEPPEY UNION.—Medical Officer for Eastchurch District, in succession to Dr. Bland, resigned. Area, 21,245 acres. Population, 3,905. Salary, £75 per annum.

STANLEY HOSPITAL, LIVERPOOL.—Junior House-Surgeon. Salary, £70, with board and rooms. Applications, with testimonials (copies only, which cannot be returned), to be sent to J. E. Bennett, Treasurer, on or before October 23rd.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates must be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28th.

THE BOARD OF WORKS FOR THE WANDSWORTH DISTRICT.—Medical Officer of Health. (*For particulars see Advertisement.*)

WIMBORNE AND CRANBORNE UNION. — Medical Officer to the Second District, in succession to Mr. W. Wyke-Smith, resigned. Area, 16,441 acres. Population, 5,413. Salary, £95 per annum.

WYCOMBE UNION.—Medical Officer to the Eighth District, in succession to Mr. Alfred Warren, resigned. Area, 3,464 acres. Population, 2,585. Salary, £29 per annum.

DEATHS.

BURNETT, FERDINAND, M.D., at Dover, on October 9th, in his 81st year.

GUISE, Surgeon-General, at the Knoll, Clifton, on October 4th, aged 68.

NOTES, QUERIES, AND REPLIES.

Primary Examinations.—The first Anatomical and Physiological examination for the membership of the Royal College of Surgeons, for the present session, was commenced on Friday last the 10th instant, when 136 candidates presented themselves as against 94, at the corresponding period last year.

The following were the questions on *Anatomy*, four of which, and no more, the candidates were required to answer between one and three o'clock, viz.—1. Describe Hunter's Canal; its boundaries and contents. Mention the parts in relation to it. 2. Give the dissection required to expose the Suboccipital triangle. 3. Give the attachments and relations of the Pronator radii teres. 4. Enumerate the Sutures of the Cranium. Give their course, the bones which respectively enter into their formation, and the class of suture to which they severally belong. 5. Describe the origin, course, and termination of the Saphenous veins, and enumerate their chief tributaries. 6. Give the attachments and relations of the Pharynx.

The following were the questions on *Physiology* to be answered between 4 and 6 o'clock, viz.—1. Describe the Structure and Uses of the different forms of Cartilage met with in the human body. 2. What is the Pulse? Why is it in general confined to the Arteries? Under what circumstances does it appear in the Capillaries and Veins? 3. Describe the Nervous Mechanism of Respiration. By what conditions and in what manner may the Rhythm of Respiration be modified? 4. Describe the Distribution of Blood in the Liver. By what forces is the Movement of the Blood through this organ maintained? 5. What gases are contained in the Blood? State the average amount of these gases in Arterial and Venous Blood? How may these quantities be determined? 6. Describe the Structure of the Cornea. Name the Refractive Media of the Eye in the order of their relative importance.

A Metropolitan Teacher.—The primary examinations at the College of Surgeons took place last year in November, when only 94 candidates presented themselves, of which number 31 were rejected. At the examinations this October the number has increased to 136. The oral examinations are now going on; the names of the successful candidates are published on another page of the *Medical Times*.

J. W. Hopkins.—E. H. Schroeder, 137, Möckernstrasse, Berlin, S.W.

M.R.C.S.—Essays for the Jacksonian and Collegiate Triennial Prizes of the Royal College of Surgeons must be sent in on or before Thursday, the 31st of December next. Write to the Secretary.

COMMUNICATIONS RECEIVED—

Dr. CRICHTON BROWNE, London; Dr. GOODHART, London; Dr. S. WEST, London; Dr. HERMAN, London; Dr. NORRIS WOLFENDEN, London; Dr. HARDWICKE, Sheffield; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. W. J. REID, Glasgow; THE SECRETARY OF THE SOCIETY FOR RELIEF OF WIDOWS, ETC., OF MEDICAL MEN, London; OUR LIVERPOOL CORRESPONDENT; THE HON. SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; Dr. W. H. BARLOW, Manchester; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE SECRETARY OF ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, London; Dr. MITCHELL BRUCE, London; Dr. FREDK. TAYLOR, London; Dr. HENRY ASHBY, Manchester; OUR GLASGOW CORRESPONDENT; Dr. SHELLY, Hertford; THE REGISTRAR-GENERAL FOR ENGLAND, London; Mr. JEAFFRESON, Newcastle-on-Tyne; Dr. MORELL MACKENZIE, London; Dr. TIRARD, London; OUR DUBLIN CORRESPONDENT; Mr. CHATTO, London; Dr. H. CAMPART, Paris; Mr. MUNRO SCOTT, London; Mr. J. W. HOPKINS, Isle of Wight; Mr. T. M. STONE, London; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Dr. DONALD FRASER, Paisley; Mr. HENRY MORRIS, London.

BOOKS RECEIVED—

Eyesight in Civilisation, by Robert Brudenell Carter, F.R.C.S.—Transactions of the Academy of Medicine in Ireland, Vol. ii.—Corpulence and its Treatment, by Dr. Wilhelm Ebstein—School-Hygiene in England, von Dr. Med. Hermann Weber—Transactions of the American Otological Society—A Consideration of the Causes of Insanity, by Walter Channing, M.D.—Cases of Interest, by Prof. W. H. Carmalt, M.D.—On the Teaching of Natural Science, &c., by Henry E. Armstrong, Ph.D., F.R.S.—Ein Neues Fleischpepton, von Dr. W. Kochs—Chlorsaure Kali, von Dr. J. V. Mering—The Condition of Gaols, &c., by James Blake Bailey—On Diseases of the Rectum and Anus, by Harrison Cripps, F.R.C.S.—The Sun's Changes in the Ecliptic, by Miss Mary Macleod—Calendar of the Royal College of Surgeons of England.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médical—The Ophthalmic Review—The Birmingham Daily Gazette—North Carolina Medical Journal—The Archives of Pediatrics—The Buckinghamshire Advertiser, October 11, 1884—Mental Journal—Indian Medical Gazette—Newcastle Daily Chronicle—The Chemist and Druggist—Revue des Sciences Médicales—Nordiskt Medicinskt Arkiv.

APPOINTMENTS FOR THE WEEK.

Friday, October 17 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, October 18.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL COLLEGE OF PHYSICIANS, PALL MALL, EAST, 4 p.m.—Harveian Oration by Dr. Russell Reynolds.

Monday, October 20.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON, 11, CHANDOS STREET, CAVENDISH SQUARE, 8.30 p.m.—Address by the President. Paper by Sir Joseph Lister, Bart. At 8 p.m. a New Invalid Bed Lift will be shown by Mr. Newham.

Tuesday, October 21.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

PATHOLOGICAL SOCIETY OF LONDON.—Dr. Charlewood Turner and Dr. Carrington, on "Dysenteric Abscesses in Liver;" Dr. Wickham Legg and Dr. Theodore Acland, on "A Case of Hæmophilia, and one of Purpura;" Mr. Pepper and Dr. Silcock, on "Tabes Dorsalis with Perforating Ulcer of the Foot;" Dr. Hadden, on "Two Fatal Cases of Alcoholic Paralysis;" Dr. Hale White, on "Coarctation of the Aorta, Chronic Ulcer of the Stomach with Secondary Changes in the Pancreas" (card); Dr. Ormerod, on "A Case of Sclerodema" (living); Dr. J. F. Payne and Dr. F. Semon, on "Rhino-Scleroma" (living).

Wednesday, October 22.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

HUNTERIAN SOCIETY, 8 p.m.—Dr. Thorowgood, on "Some Forms of Irritable Heart."

Thursday, October 23.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, October 24.

CLINICAL SOCIETY OF LONDON.—The following Papers will be read:—Mr. Golding-Bird, "A Case of Dislocation of the Patella;" Dr. James Anderson, "A Case of Myxœdema;" Dr. Carrington, "A Case of Eruption, probably due to Bromism;" Mr. Godlee, "A Case of Nephrectomy for Tumour in an Infant."

QUEKETT MICROSCOPICAL CLUB, UNIVERSITY COLLEGE, GOWER STREET, 8 p.m.—Ordinary Meeting. Dr. W. B. Carpenter, C.B., F.R.S. (President), on "The Relations of the Various Types of the Genus Orbitolites."

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

SUMMARY OF CONTENTS, OCTOBER 11.

MEDICAL TIMES

AND GAZETTE.

No. 1791. LONDON, SATURDAY, OCTOBER 25, 1884.

Contents.

THE HARVEIAN ORATION.

Delivered before the Royal College of Physicians of London, October 18th, 1884.

By J. RUSSELL REYNOLDS, M.D., F.R.S.,

Consulting Physician to the University College Hospital.

Sir Thomas Brown has said, in one of his sadder moods, "Our fathers find their graves in our short memories, and sadly tell us how we may be buried in our survivors. . . . . The greater part must be content to be as though they had not been—to be found in the register of God, not in the memory of man." This is, without doubt, true, as he said, of the "greater part," but it is not true of all; for our meeting here to-day is an assertion that there is at least one who has not yet found his grave in our vanishing power of recollection; but whose life, unburied, still lives in the lives of living, acting men. It is not of the sorrows and "unavailing tears" that were shed, nearly two hundred and thirty years ago, over Harvey's grave, that it behoves me now to speak; but rather of the fact that nearly three centuries have passed since he became a part of this College; and that only last year, on the eighteenth day of October, our College repaired to his grave in Hempstead, to do honour to his memory; and with gratitude and gladness to assert that he still lives "in his survivors;" and that, although three hundred and six years have passed since Harvey's life began, we now, and here, meet again to say that he is neither dead nor sleeping.

1. Let me ask you, for a few moments, to think over that act of last year. It is not meet to call it a "ceremony" or "performance," for those words may have a doubtful meaning. It was a something done; and that with purpose. It was done with reverence and solemnity, and fitting formal circumstance. The like of it has not often been seen in this country. It was simple, but it told of much complex thought and feeling. It was grave, but it was not sad; it was official, but it was not heartless. It was unnecessary, but it was urgent; it was a duty to the remains of Harvey, but it was also an honour to ourselves. Its voice could not "provoke the silent dust," but its tone could stir the now living "ear" and heart, and quicken the still acting brain.

A. One thing that this College did last year was to show regard for the *bodily* remains of Harvey. There was something of him—that neither painting nor bust could be—which it still wished to cherish. It would try to hold together, yet longer, the last remnants of what was once the medium through which he saw Nature, and by which he read many of her secrets, and revealed them. This wish is natural, and old because it is so. If some Eastern nations, in their great

reverence for the soul, have taken means to display their contempt for their body, such peoples have been the exception. The Pyramids, the abbeys, the great burial grounds in town and country, and the world's great surface, scattered over with its complex or simple tombs, all tell the same story of regard for the dust and ashes of those who have gone. Even if the body has been burned, there has been found the urn to hold together the ashes that the flames have not had power to kill. We may know and admit "to what base uses we may return;" but still we resent or recoil from the degradation. There is a widely spread human struggle against allowing the bodies of those we have known, and reverenced, and loved, to merge into the common earth. We set up our barriers against it; we entomb, and we embalm; we carry on a fight as strong in feeling as it may be futile in effect; but still, a real fight against physical disintegration. This may be all very foolish and unscientific; but still we will, if we can, keep together something of the individual, so long as time and outside forces are not too strong for us; and we utter a parable, as we do so, of our regard not only for the bodies, but for the lives of those individual men, as we tell of, or come to know, them, in the thousand biographies that surround us, each one of which is, in its very essence, "a feeble struggle with death." The notion that some spark or germ of life might lie hidden in the ashes that were buried or inurned ("lateat scintilla forsan") may have had much to do with the careful keeping of the ashes in the past; but that is not all. Even if Science could quite put out this faint "scintilla," the human instinct would remain, and would show itself beside almost every open grave, and sometimes display itself in such solemn and remarkable event as that which took place last year at the tomb of Harvey. It was a graceful and an honourable act of this College to take upon itself the work of "Old Mortality," and to travel away from its ordinary home that it might chisel afresh the marbles that held the remains of its greatest son; but much more than this was accomplished at that time; for therein was shown a profound and still living affection, reverence, and gratitude for Harvey's life.

B. We, again, to-day, would do homage to the *life* of Harvey; looking at it in its threefold aspect of moral mental, and active energy. We commemorate his character; his rare combination of faculties; and his work achieved. In him there was that due proportion between all those powers which a great thinker of this generation has regarded as the root-fact of what we call "genius."

We like to picture to ourselves what he, now dead in body, resembled when he lived; how he thought; and about what he thought; how and what he did; in what light he regarded his own work; its relation to the work of others; to his ancestors in science, to his immediate predecessors, his associates, his antagonists; and to those who must come after him. This is as natural as is the regard for the bodily remains; but it is on a higher level. Ancient "songs" handed down, in earlier days, the noble deeds, thoughts, words, and characters of those whom it was a religion to venerate and whose memory it was a bounden duty to prolong. Our short biographies in epitaphs, our longer biographies in books, bear witness to our dislike to the cremation of ideas and of individual life. There is, doubtless, much disintegration and cremation of a very healthy sort now going on among the works of the living as well as of the dead; and very small urns might hold all that is worth keeping of the life-work of many. Still, even on these, we should like to engrave the names. Perhaps in most lives there are many things that those who lived them might gladly see burned way; but (as Sir Thomas Brown says) "we cannot hire oblivion," and even if "a wise oblivion be a greater good than a strong memory," we still like to preserve the individuality of the really great ones of the earth, with all their faults; and we resent—as we do with quite small people—either a flattering, or disparaging, or a one-sided picture.

Reading Harvey's own writings, his theses, their introductions, their dedications, his disquisitions, exercises, letters and "obiter dicta," we find him writing, all unconsciously, his autobiography; and this confers an unspeakable charm upon his works. He does not tell us of his birthplace, or parentage, or where he was taught, or how he lived—which, thanks to many who have written of these things, from Aubrey and Ent to Willis, we know fairly well—but he reveals his very soul and life, his method of work, and his mode of thinking about it all, as he spent those long years of research, experiment, discovery and disputation, together with all the toils of a teacher, and the cares of a busy practitioner of medicine. Thoughts, discoveries, and lives are quickly disintegrated in this fast-moving, restless age, the rate of whose movement shows acceleration every year; and so there is much individual work that must soon pass into, and be lost in, the sum of common knowledge, and become only the groundwork upon which many a superstructure may be raised; but the personality of Harvey can never be lost sight of, so long as this College stands, and so long as there are men who care to "read between the lines" of his great works, and find in them the portrait of himself. It is important, in our attempt to realise this portrait, that we should look—in order to judge of its value—both before, around, and after the time in which the great artist sketched it.

Harvey's work of discovery, like that of all great discoveries—into whatever reach of knowledge and of thought they may have broken—was not unprepared. Men were eagerly looking for a light that they felt sure was coming; and there were streaks of dawn in the Eastern sky that led them to find the Man, and the Truth, for which they had been seeking, so that what before had been mysterious was now clear; what had been dark was now illumined; what they had sought for now they found. The contents of the "shell," on the like of which Harvey afterwards wrote so much, were teeming with a growing life that showed but vague signs upon its smooth, unbroken surface; but Harvey cracked the shell, and there burst forth at once into a seen life, a form and meaning for which all the growing processes within that shell were made. There was a new thing, a new thought, a new generalisation. There was the solution of the problem of yesterday, the answered riddle, the platform for to-morrow's work. All honour to those who, toiling slowly in the night, or in the dawn, with its mist and mystery, have yet made some headway forward and upward, and prepared the path for one among them who has shared their labour, their weariness, their disappointments, and their woes; but who suddenly makes, as it were, a leap to a wider range or to a higher level, and thence holds out the hand of strength and fellowship to place them by his side. We honour the worker, wherever he may be, so long as his labour is honest, and is his best; but we have only scant words to express the regard in which we hold the man whose discerning thought and practised skill has lifted all workmen higher; opened to them new ranges for their toil; given them new methods to follow, and left behind him footprints in which some of them may tread, as he goes before them, and passes out of sight.

Great men have always foreseen much; or, at all events, have said or seen things of which they perhaps did not and could not fully appreciate the meaning. They have scattered germs of thought around them as they passed through the varying fields of life, to the

point or end that their determination impelled them to attain ; and some of these seeds of future discovery have "fallen on good ground, and brought forth fruit." There is here some instance of the process of "Evolution" in regard to scientific discovery. Harvey reaped much that he had not sown ; but he sowed much more which others, after him, might reap.

There is one thing more, however, that this College has done for many years, and that is, by this annual oration, to *hand down* to coming generations the memory of him from whom we have learned so much, and to whom our debt of gratitude is larger than we, perhaps, as yet can know ; certainly much larger than falls within the range of my powers to express.

We speak of the "immortal Harvey," but in what sense? To many, his own words would convey all the meaning of that attribute. "The eternity of things," he says "is connected with the reciprocal interchange of generation and decay ; and as the sun, now in the east, and then in the west, completes the measure of time by his ceaseless revolutions, so are the fleeting things of mortal existence made eternal through incessant change ; and kinds and species are perpetuated, though individuals die."[1] True—grandly but sadly true—and yet our meeting of this day is a declaration that such truth is not universal. Much of his work has become a part of common knowledge ; and so will live on in the lives of those who are the "interpreters of Nature" so long as Nature lasts. But the wish that animates us to-day is to hand down to those who follow us some knowledge of the individual to whose life we owe so much, and whose personality we would not "willingly let die." There are many ways in which this may be done, but I would allude to only two.

1st.—The *names* of some great men have been associated with the discoveries that they have made ; and they perhaps are used, many of them, in such familiar way that they convey little or no suggestion of their meaning. In some generation or two yet to come may it not be that the etymology of such words as Fallopian tube, Meckel's ganglion, Bright's disease, Addison's disease, Corrigan's pulse, Galvanism, Faradism, an Ohm or a Volt have become somewhat obscure? Or if the meaning of such phrases may be found in lexicons, are there many who will try to find out those meanings? It seems to me probable that individuality will not be maintained by such means ; and that future students may sometimes be disposed to ask—as I once heard the question put quite seriously—whether or no the "portal vein" was not named after the distinguished French physician Portal. While the progress of science is constructive of generalisation and so-called "laws," it is destructive, as Harvey says, of the individual life ; but yet we give "names" to organs, functions, forces and shrewd connotations of phenomena, in order—while finding them convenient at the time—to delay if not arrest the disintegration of the work of those men whose names we thus hand down to those who follow us. Do we not think it probable that, as future research proceeds, some of these names—which have passed into many countries and many tongues—may be lost sight of, and be so decomposed that they pass out of common use? At this hour, and still in the lifetime of our honoured President—whom may God long preserve—the phrase "continued fever" has passed into practical disuse ; and this has been due, mainly if not exclusively, to the industry and genius which led him to disintegrate the name, and define the maladies that had long passed under that common term.

2nd.—Again there are certain *days* by which the memory of great men is perpetuated. From very olden times until now, and from the far east to the far west, "days" are set apart for the purpose of recalling individual lives. Ceremonies, of all kinds, have been parts of these human, national, and instinctive acts. They begin in the smallest families with the "birthdays" and they stretch out to the acts of the greatest nations. This is "St. Luke's Day," in the calendar of millions. There are days still set apart compared in antiquity with which the observance of St. Luke's Day is but a modern event. Two hundred and eighty years have passed since Harvey was a member of this College : for two hundred and fifty-six years his great work (de motu cordis et sanguinis) has been before the world : two hundred and twenty-seven years have elapsed since he was buried in the quiet little church of Hempstead. And yet only one year has passed since this College removed his remains "lapt in lead" from the vault in which they had long lain, and placed them in the safer keeping of new and carefully selected marble. With us, although it is not so named, this is "Harvey's Day," and three hundred years have passed since he was born. How long this commemoration will continue we cannot tell. Our knowledge of the future is but scant. Who knows whether, when another sixty-nine years have passed, "Waterloo Day" will be kept in memory of Wellington?

No one can answer us in our questions. But this we may do—we may look to the past, and learn its lessons ; we may look to humanity and read its instincts ; we may read the record of this College, and know its feeling ; and of this we may be sure, that—although Harvey's name may be unknown to many in the days to come—yet so long as disease lasts ; so long as the movements of the blood form part of the study of the physiologist and the art of the physician ; so long as any further light is to be thrown upon them, by cardiograph or sphygmograph, or by any as yet unthought-of method of investigation ; so long as "the circulation" is a recognised fact of science, his work will live ; and although much of it may lie hidden in the common notions of the future, yet the life of Harvey will be maintained in its integrity by the future Fellows of this College ; and the greatness of his character will be brought, again and again, to light by many who will, more adequately than I can do, discharge the duties of this day.

It has been my wish, in what has hitherto been said, to lay before you some explanation of the motives that bring us together now ; and also of those that led this College last year to the grave of Harvey. But further,—

II. If we would appreciate the work of Harvey well, let us for a moment try to eliminate from our knowledge the fact of "the circulation of the blood," and then imagine ourselves to be face to face with the diseases that we are daily treating ; with fever, apoplexy—hæmorrhagic, embolic, or diathetic ; with dropsy ; with cardiac disease, recent or old ; with degeneration of structure, or with functional derangement. It requires some force of fancy to realise what would be our position. The thermometer might teach us much ; but it is difficult to see in what way either stethoscope, cardiograph, or sphygmograph could do other than augment our bewilderment. Those who have made out for us the meaning of the cardiac sounds ; those who have skilfully constructed apparatus so as to make the heart itself record, in some fashion, its own marvellous movements ; and those who have delineated in some sense, the curve and time-ordered elements of the radial pulse, would all admit that their work was based upon this foregone conclusion, the accepted fact that the blood moved onwards in a circle. They have attained to knowledge that Harvey could not reach ; but let me ask, could they have known what they now do, unless Harvey had raised the platform upon which they stood? The "thoughts of men are

[1] On Generation, p. 226.

widened by the process of the suns;" and by slow degrees others might have done the work, or made the discovery that he made; but the effect of his energy was a grand upheaval of the crusted surface of the past; a Titanic throe that brought to the birth a new and mighty force and fact; and when some of the dust and boulders had been cleared away, placed all who followed him on a higher plane, and in a clearer light.

It is given to the few great men to save the time and labour of the many. They not only make strides that would be impossible for those of lesser build, but they carry with them, over the bridge that they have thrown across the great gulf between the question of yesterday and the answer of to day, all those who have eyes to see, ears to hear, and hearts to follow.

III. Next, let me bring before your notice some of the main features of Harvey's "character," as this displays itself in his written "work." Chronologically, his character must precede his work; but the former was developed by the latter. These things act and react; moral forces become greater as our toil grows harder; and, in so doing, give not only fresh impulse, but increased strength for work.

A. Throughout Harvey's writings there is an eminently religious tone; a devout and reverential recognition of God; not only as the great primal, ever-acting force, behind, outside, and before all the works of Nature; but as the being, "the Almighty and Eternal God," to whom, as he says in his last will and testament, "I doe most humbly render my soule (as to) Him that gave it; and to my blessed Lord and Saviour Jesus Christ."[2]

But Harvey did not let his religious convictions hold him in the tight grasp of what has been termed the "theologic stage" of development; nothing prevented him from seeing all that he could see, and frankly telling all that he believed; and so we find him spurning some of the figments about "the spirits . . . . . of a sublime, lucid, ethereal, celestial, or divine nature," when they are employed to fill up gaps in the physiology of his day; and comparing those who use them "to the vulgar and unlettered who, when they do not comprehend the causes of various effects, refer them to the immediate interposition of the Deity."[3]

Harvey, although saying that the Divine mind of the Eternal Creator which is impressed on all things creates the image of itself in human conceptions;"[4] and again, that all the arts are but imitations of Nature . . . . as our reason or understanding is a derivative from the Divine intelligence manifested in his works;" and still further to affirm as follows—"wherefore, according to my opinion, he takes the right and pious view of the matter who derives all generation from the same eternal and omnipotent Deity, on whose nod the universe itself depends;" yet shows his freedom from theologic dogma, and his wide range of thought in adding, "Nor do we think that we are greatly to dispute about the name by which this first agent is to be called or worshipped; whether it be God, Nature, or the soul of the universe—whatever the name employed—all still intend by it, that which is the beginning and the end of all things; which exists from eternity and is almighty; which is author or Creator, and, by means of changing generations, the preserver and perpetuator of the fleeting things of mortal life; which is omnipresent, not less in the single and several operations of natural things than in the infinite universe."[5]

We are reminded by this passage of the well-known dialogue, in which Faust, replying to Margaret's examination of his creed, says—

> "Call it whate'er thou wilt—heart, love, or God,
> Or happiness!—I cannot give it name."

And the fair Margaret gives answer—

> "All that is very good and true;
> Nearly the same the Priest says too,
> Only in somewhat other words than you."

But Harvey recurs to the same theme, and after saying that "the most perfect man, whose highest excellence is that he knows himself;" adds, "we ourselves, as is seeming in these days (hold) as the Almighty first cause of all things . . . . the Creator and Father of all that is in heaven and earth, on whom animals depend for their being, and at whose will and pleasure all things are and were engendered."[6]

"It is true," said he, in conversation with Dr. Ent, "the examination of the bodies of animals has always been my delight; and I have thought that thence we might not only obtain an insight into the lighter (? higher) mysteries of Nature, but there perceive a kind of image or reflex of the omnipotent Creator himself."[7]

B. If Harvey, though a devout believer in God, was yet free from all the restraints of the so-called "theologic stage;" he also, although a learned and keen metaphysician, had escaped from the trammels of what has been termed the "metaphysic stage." He had "cast them off with as much ease as Samson his green withes." He meets the metaphysician on his own ground with clever dialectic; but he pours contempt on those "who advocate incorporeal spirits, having no ground of experience to stand upon;" adding that "their spirits indeed are synonymous with powers or faculties, such as a concoctive spirit, a chylopoietic, &c., they admit as many spirits as there are faculties or organs." And, before this, with regard to the nature of "the spirits," he says, "There are so many and such conflicting opinions, that it is not wonderful that the spirits whose nature is thus left so wholly ambiguous should serve as the common subterfuge of ignorance. Persons of limited information, when they are at a loss to assign a cause for anything, very commonly reply that it is done by the spirits; and so they bring the spirits into play upon all occasions; even as indifferent poets are always thrusting the gods upon the stage as a means of unravelling the plot, and bringing about the catastrophe."[8]

C. If it be asked what was, then, Harvey's position, and what was the method he employed?—my reply is that he, being one of "the freemen whom the truth makes free," held the position of an observer, a questioner, and an interpreter of Nature. In the letter, by which he dedicates to the President and Fellows of this College, his "Anatomical Disquisition on the Motion of the Heart and Blood in Animals," he declares himself "the partisan of truth alone,"[9] and throughout all his writings that follow he never swerved from the position he had taken. To him "virtue," as it has been well said by Emerson, "lay in the adherence in action to the nature of things; and the nature of things made it prevail."

The intense love that Harvey felt for Nature led him to choose her as his constant companion, and his guide in the search for truth. There was nothing that she could show him that was too great for him to attempt to understand; nothing too small for him to pass by, or to regard with other feelings than those of affection, of reverence and wonder. The teaching of Nature was to him absolute in its authority. "The facts cognisable

[2] Will of Harvey, p. 89.
[3] On the Circulation, p. 120.
[4] On Conception, p. 582.
[5] On Generation, p. 370.
[6] On Generation, p. 402.
[7] Epistle Dedicatory, p. 146.
[8] On the Circulation, p. 115 *et seq.*
[9] On the Motion of the Heart.

by the senses," he says, "wait upon no opinions, ... the works of Nature bow to no antiquity; for indeed there is nothing either more ancient or of higher authority than Nature"[10] Harvey "observed" the facts before him—and he had eyes to see—but not content with the "experiments prepared by Nature," he "made" new facts, by his skilful manipulation of the materials that were lying at his hand; and thus he asked pertinent questions, and obtained their answers. He thought about all these things; he reasoned upon them all; he sought and found all the help that metaphysical method and learning of the schools could render him; and then he became their "interpreter."

His mode of progression may be defined as "longitudinarian" (if I may use a word, coined some years ago, in opposition to one very familiar to us all)—*i.e.*, he looked and worked straight from end to the end. His line was the shortest one that he could draw between the simplest—the first—fact observed and the most remote object of his gaze. He thought in "a straight line;" he never swerved in his forward march; but, as he passed onwards, he saw things outlying, on by-paths, but his own force of movement dragged them into his own well-chosen course, and he made them help him on his way. Arrived at his goal, he arranged his materials with care, and proceeded to explain their meaning by a simple inductive process. But, still keeping the same point in view, he approached it from other sides. Sometimes his lines, although converging, did not meet at the point he quite expected. Here, his power of thinking outside of, and beyond the facts came to help him; he made new observations, new experiments, and at last focussed them on a point made bright by the rays of his own genius. Dr. Ent spoke but the truth when he said to the President and Fellows of this College, "Our Harvey rather seems as though discovery were natural to him; a thing of ease, and, of course, a matter of ordinary business; though he may nevertheless have expended infinite labour and study on his works."[11]

D. Harvey made use of working hypotheses; but he never confounded them with either facts, inductions, or laws. He claimed in one of his ingenious theses the liberty which he willingly yielded to others, "to put forward as true (in matters full of obscurity) such things as appear to be probable until proved to be manifestly false;"[12] and after demolishing many theories of others, "prayed for a place" for his own "conjecture until something certain should be established in the matter."[13]

E. If some fact, apparently opposed to a truth that Harvey believed himself to have established, confronted him in his way, he rode over it, with a force that could only come from the momentum that his strong conviction had given to his movement onwards. For example, he says, "There is one experiment which I would have every one try who is anxious for truth, and by which it is clearly shown that the arterial pulse is owing to the impulse of the blood. Let a portion of dried intestine . . . . be taken and filled with water, and then secured at both ends like a sausage: by tapping with the finger at one extremity, you will immediately feel a pulse and vibration in any other part to which you apply the fingers, as you do when you feel the pulse at the wrist." After referring to the manner in which such percussion may be made of use in distinguishing between air and fluid in the abdomen, he continues,—"Having brought forward this experiment, I may observe that a most formidable objection to the circulation of the blood rises out of it, which, however, has neither been observed nor adduced by any one who has written against me;" and then he falls back upon his observations which show that, in spite of this seeming difficulty, the circulation has been proved. He says that he had "already satisfactorily replied to this difficulty;" and such is true, inasmuch as he had pointed out that all the blood did not pass through the vessels, but that some of it was detained for nutrition; he had spoken of the contractility of the arteries, and of the impulse wave; but his solution of the difficulty, that he himself alone had seen, was founded on his confidence in the truth of his main assertion.

This reminds me of a characteristic incident in the life of one much lamented by many here—I mean the late Professor Sharpey. He was taken once to a celebrated clairvoyant, who, blindfolded and mesmerised, lay on a sofa, and clasped to his epigastrium card-cases, with cards in the inside of each, wrapped in sheets of paper; and on the kernel cards of which was written anything that the experimenter chose to write; and immediately the man read the number, the name, or the quotation that was enclosed. "It is very clever," said Sharpey, "but a man cannot see with the pit of his stomach, for all that;" and so he devised a simple means of showing, at the next *séance*, that the card-case was opened, and the inner paper and card taken out. He could not see how the trick was done, but confident belief in his physiological creed enabled him to point out a transparent lie in the pretended new faculty of vision.

F. Boldness was a great feature of Harvey's character when he told any of the truths he knew. "It were," he said, "disgraceful . . . . with this most spacious and admirable realm of Nature before us . . . . did we take the reports of others upon trust. . . . . Nature is herself to be addressed; and the paths she shows us are to be boldly trodden. . . . ."[14] And again, at a later period, he writes: "The doctrines inculcated on the subject of the humours, and which, as being entertained by the ancients, Fabricius regards as certain truths, requiring no further proofs, are inconsistent and false."[15]

G. But Harvey, although bold and strong, was meek, cautious, and polite. He preferred "being wise with the few . . . . to going wrong with the many . . . ."[16] Dr. Ent, in conversation with Harvey, said to him: "You yourself, I well remember, informed me once that you had never dissected any animal—and many and many a one you examined—but that you discovered something unexpected, something of which you were formerly uninformed."[17] He was greatly afraid lest he might be charged with presumption, did he lay his work before the public at home, or send it beyond seas for impression . . . . unless, as he says, I had first proposed its subject to you (the President and Fellows of this College), and had confirmed its conclusions by ocular demonstrations in your presence, had replied to your doubts and objections, and secured the assent and support of our distinguished President."[18] Perhaps it might be well if a similar submission were sometimes adopted in this nineteenth century. But so much has been added to what is called our scientific literature during the third quarter of this century and its now current fourth, that, perhaps, no officer of the College will thank me for the suggestion.

H. Harvey fully realised the value to be attached to the "conclusions to which others had come who had looked" at facts themselves; but he adds, "he who truly desires to be informed . . . ."

[10] On the Circulation, p. 123.
[11] Epistle Dedicatory, p. 149.
[12] On Conception, p. 577.
[13] Ibid., p. 580
[14] Introd. to Ex. on Gen., p. 153.
[15] Of the Humours, p. 557.
[16] Introd. to Ex. on Gen., p. 152.
[17] Epistle Dedicatory, p. 146.
[18] Dedic. to R.C.P. of Thesis on the Motion of the Heart and Blood, p. 6.

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must be held bound to *look for himself* . . . . for "it is our duty to approve or disapprove, to receive or reject, everything only after the most careful examination . . . . to examine, to test whether anything has been well or ill advanced, to ascertain whether some falsehood does not lurk under a proposition . . . . it is imperative on us to bring it to the proof of such, and to admit it or reject it on the decision of such." [19]

I. In much of his writing, Harvey was both humorous and eloquent, and he could exhibit high indignation when he dealt with his detractors, yet "to return evil speaking with evil speaking" he held "to be unworthy in a philosopher and a searcher after truth." The passage, however, that follows this, shows that Harvey could (as Sir Anthony Absolute says), if he were tempted to do so, use "strong language;" for he comforts Riolanus by assuring him that "it cannot be helped that dogs bark, and vomit their foul stomachs, or that cynics should be numbered among philosophers; but care must be taken that they do not bite or inoculate their mad humour, or with their dog's teeth gnaw the bones and foundations of truth;"[20] but we must remember that this was not said *to* his detractors, but only *of* them; said to his friend Riolanus; and, moreover, it was said in Latin, and that makes all the difference!

But with the exception of a few scattered passages of just wrath, Harvey was always dignified, lenient, and calm. He was, as his contemporary Ent said of him, "beyond all praise," and it may be justly repeated when regarding the strength and gentleness of his great heart:—

"He has outsoared the shadow of our night,
Envy and calumny, and hate and pain,
And that unrest which men miscall delight,
Can touch him not and torture not again."

He acquired fame, which certainly was not to him "the spur" that might his

"clear spirit raise
To scorn delights and live laborious days."

It may be, as was said of others in his day, that it was "the last infirmity of noble minds," but it was not so with our illustrious Harvey. Truth was what he sought, and what he found; and if fame went with him and followed him to his grave, and waits upon him now, there was no seeking for it on his part; nor could he well have imagined, with all his force of fancy, such a tribute to his memory as that of last year, in the churchyard at Hempstead.

K. Harvey's great achievements were the result of his method—viz., that of observation and experiment. Nature "displays" much; "the Heavens declare the glory of God," and she is always "revealing" as she moves, and she is never still; but Nature is ever moving "onwards" to some unknown goal; and at each onward step, she, while revealing, "hides;" leaves behind in her wake something of the past, which now we cannot see, and presents new facts and new combinations for man—one of her factors—to interpret. Harvey was one of her keenest and most devout interpreters. To him, as he stood by and listened, the Nature-spirit sang, and with profoundest meaning,

"So work I at Time's rushing loom,
And weave the living robe of God."

L. In reverence Harvey knelt before her, but not satisfied with what he saw and heard, he asked her questions—and this with no notion of confusing her, or misreading what she had already written,—for he was just the kind of questioner to ask the kind of question to which she readily gave answer. He examined her "in chief" to find out the *right;* he "cross-examined" her, but in no unfriendly tone, to bring her answer to a "yes" or "no," and so disprove the *wrong*, the untruth which other questioners had placed in evidence.

"Nature," said he to Ent, "is the best and most faithful interpreter of her own secrets; and what she presents either more briefly or obscurely in one department, that she explains more fully and clearly in another. . . . . Truth," he continues, "scarce wants an advocate."[21] Nature to him was a perfect verity: the one witness that could never be abashed or shaken; the one witness in whom there could be no false way; the one witness who could not lie. There was no need to put her "on her oath," for she, in her prime, had been adjured, by the Almighty God, to tell the truth, and "nothing but the truth." This she has always done, and now is doing, and will, as we believe, go on to do. But can she tell "the whole truth?" Will Nature ever tell, or teach, us this? I cannot presume to answer the question which yet I dare to ask; but my own conviction is, that she neither will nor can do this thing until the last hour of Time has struck, and has ushered in the dawn of that one, long, clear, eternal day,—whose "sun shall no more go down,"—and in whose ever-growing light those that abide shall hail the presence of that

"far-off Divine event,
To which the whole creation moves."

[19] On the Circulation, p. 131.
[20] Ibid., p. 110.
[21] Dedicatory Epistle, p. 146 *et seq.*

A CASE OF MYXŒDEMA WITH RECOVERY WHICH WAS MARKED BY PROFUSE PERSPIRATION.

By DONALD FRASER, M.D.,
Visiting Physician, Paisley Burgh Asylum.

In view of the numerous cases of myxœdema which have of late been recorded, I should not have thought it necessary to report this one but for the fact of a spontaneous recovery having taken place, and also that this recovery was coincident with free perspiration, and presumably largely due to it.

The patient was lately under my care in the Paisley Burgh Asylum, and, as above said, the period of recovery was marked by almost continuous and profuse sweatings of a purely spontaneous character, in that they were not the result of treatment or external stimulation of the sweat glands.

My patient was a male in middle life, and a most unlikely case for recovery, both as to his mental state and his physical condition. The recovery was most gradual in its course, so much so that it was difficult to say when it began. If we regard the sweating as an indication of a curative process going on, then it began very soon after the myxœdematous condition became established.

The mental state of this man was of the character usually described as associated with myxœdema. He was in a high degree apathetic, appeared slow of apprehension, could with difficulty be got to answer questions, and would do so only by means of a whispered monosyllable slowly uttered. He would stand for considerable periods in any position in which he might be placed, with his head carried on his breast, and with expressionless face, while he required to be pushed about like an automaton. Contrary to the more usual history in such cases, this mental state preceded the appearance of the myxœdema, which only became noticeable about eighteen months after his admission to the asylum. The following details

partly taken from the case book will demonstrate the features of the case.

Hugh M'Queen, aged 36, a starch-work labourer, of somewhat intemperate habits, was admitted into the Paisley Burgh Asylum on the 11th September, 1880, from the Burgh Poor House, with a history of having been two months insane, and of having lately refused food. He had been a poorly paid labourer, of the slow and stupid sort, who drank as much whisky as he could get. He was a heavy large-boned man in poor bodily condition, and on examination there was found to be dulness on percussion and feeble respiratory murmur over the base of the right lung, and measurement showed the right side of the chest to be larger than the left. There were the marks of old varicose ulcers on both legs. For several months after admission he continued to lose weight, and the dulness to percussion remained on the right side of the chest. There were no indications whatever of any swelling or fulness of face or limbs; he was indeed emaciating. On June 3rd, 1881, the following note was made :—Patient is completely apathetic, and appears to be losing ground steadily. This morning he was looking so blue about the face and ears that he was put to bed for examination, when the base of the right lung was found to be dull on percussion, and the respiratory murmur tubular in quality but very feeble, while the vocal fremitus was exaggerated. At the right apex, in front, there was also dulness and very well marked tubularity of the respiration, which was also jerky. The respiration was also peculiar on account of the length of the pause, which appeared longer than either inspiration or expiration. The heart sounds were normal, but were almost metallic in quality. There was at this time no fever but great sluggishness of all the bodily and mental functions. He was ordered to be kept a good deal in bed, and tonics with a suitable diet prescribed. In about two months he was going about as usual. Three months after the above note was made it was found that the right lung was very much in the condition indicated by the above described physical signs, while mentally there was no improvement. Towards the end of 1881 or the beginning of 1882, the myxœdema began to be observed. The legs were found to be swollen and œdematous, and the face swollen. Its onset was very gradual, and at first was taken to mean Bright's disease which, with the feeble circulation, was considered to be the cause of the swelling of the lower limbs, until repeated examinations of the urine showed that there was no albumen or other evidence of kidney disease. This solid œdema, for it was soon seen to be of this character, was marked in the legs by an œdematous state for which he was occasionally put to bed, but there always remained, even after prolonged rest in bed, a pork-like state of the limbs. The face had, in a striking degree, the characteristic appearance of myxœdema, being swollen, not pitting on pressure, with clear waxy-looking skin, particularly under the eyes, and red, almost livid-like patches over each malar bone, and was expressionless. The hands were cold, blue, and swollen. The mental symptoms, while showing great sluggishness and some enfeeblement of the mind, were not those of dementia. It was, however, very difficult, if not impossible, to ascertain the existence of delusions or hallucinations. The temperature was generally subnormal. The skin was never observed to be dry or harsh but, if anything, moist.

On February 18th, 1882, it was noted that he had been again confined to bed, as his legs were getting very œdematous, and there was a slight ulcer on the anterior and lower part of each leg. He has been noticed to perspire very much, and on the least exertion profuse perspiration occurs. I was at this time, and afterwards, in the habit of pointing him out to medical visitors as a case of myxœdema, but with a wet instead of a dry skin. When lying in bed, as he used to be for days and portions of days at a time, his skin was always found to be bathed in perspiration, while large drops of sweat stood on his brow. Dr. Love, formerly Assistant Medical Officer, now of Glasgow Royal Asylum, compared his face to a bacon ham frizzling in the sun.

During 1883 his urine was repeatedly tested and was always free from albumen. The quantity was at times under the normal, and was from 36 ozs. to 66½ ozs. in the 24 hours.

The quantity of urea which was tested by Russell and West's apparatus ranged from 240 grs. to 399 grs. in the 24 hours. No evidence of any change in the thyroid gland could be obtained.

Towards the end of the year he steadily improved. The solid œdema of the face and limbs gradually disappeared, I say face and limbs, because on these parts it was most obvious and striking. The mental apathy also passed away, and he began to take an interest in his surroundings, made himself useful in the house, would answer questions readily, and give an account of his history before admission.

On January 25th, 1884, Dr. Love, who was visiting the house after an absence of several months, saw him, but at first did not recognise him, so altered was his appearance, though the patient recognised Dr. Love and spoke readily to him.

February 17th, 1884, it was noted that his mental condition is much improved within the past five months. The bodily condition is also satisfactory. There is a slight translucency of the skin about the lower eyelids, which is the only trace left of his myxœdematous condition.

On June 23rd, 1884, he was discharged recovered, and left the asylum very much against his will as he preferred its ease and comfort to the life he had been accustomed to before admission.

In view of the fact that pilocarpine has been suggested and used in the treatment of myxœdema, this spontaneous cure, marked as already said by almost continuous and at times profuse perspiration, has some interest. The case differs from most of the recorded ones in that the skin never was dry and harsh. We have, however, a general condition marked by great sluggishness of function, bodily and mental, followed by the appearance of the solid œdema of the subcutaneous tissues which disappeared as above described. In other respects the case does not throw much light upon the essential pathology of the disease, though it lends no countenance to the idea that in this disease the mental state is secondary to and dependent on the myxœdema.

CASE OF LABOUR WITH KYPHOTIC PELVIS, AND RELATIVE SHORTNESS OF THE CORD.

By G. ERNEST HERMAN, M.B., Lond.,

Obstetric Physician and Lecturer on Midwifery to the London Hospital,

On May 18, 1884, I was sent for by Mr. H. J. Sequeira to see, with him, Mrs. C., aged 38, pregnant for the second time, the first child having been born dead, prematurely, she thought at about 8 months' pregnancy, without assistance.

Labour pains had begun on May 17, at about 6 p.m. At about 1 p.m., Mr. Sequeira found the os uteri fully dilated, and ruptured the membranes, but as, in spite of strong uterine action, the head did not advance, he

sent for me. I arrived about 3.30 p.m. There was lumbar kyphosis. The head was presenting, but seemed arrested at the brim in a state of extreme flexion, the posterior fontanelle being comparatively low down, the right limb of the lambdoidal suture running to the middle of the symphysis. The sagittal suture ran backwards and slightly to the right, dividing the presenting part of the head into two parts, which, as nearly as could be ascertained, were equal. The anterior fontanelle was too high up to be felt.

The forceps was applied, and Mr. Sequeira and I alternately made perscvering attempts to deliver; but we could not produce any advance of the head. It was, therefore, perforated, and the cephalotribe applied, by which delivery was easily accomplished. The right blade of the instrument was found to have seized the head above the right eye, the left behind the left ear.

After the head had been extracted, difficulty was met with in the delivery of the body. Direct traction was ineffectual, and the body was, therefore, drawn backwards in order to assist the disengagement of the anterior shoulder, at the same time being held loosely so as to be frec to turn. It then spontaneously and quickly rotated through half a circle, so as to bring the face to the front, and then during extraction slowly rotated through a quarter circle further, so as to bring the face looking to the left thigh of the mother. As the body emerged, the cause of this rotation became apparent in the cord, which was twisted round the body of the child, and tight.

An internal examination of the pelvis showed that it was of the shape usual in lumbar kyphosis. The sacrum was straighter than natural, and the sacral promontory did not project as usual. The brim was, therefore, rounder than usual, and the conjugate seemed to slightly exceed the transverse diameter; each measurement was more than $4\frac{1}{2}$ inches, but as they were only measured with the hand, the exact excess over $4\frac{1}{2}$ inches could not be correctly estimated. The outlet was contracted, the distance between the tubera ischii being between $3\frac{1}{4}$ and $3\frac{1}{2}$ inches, and from the pubes to the coccyx about the same. The extent to which the latter measurement might have been enlarged by backward movement of the coccyx could not be estimated. The child was a very large one.

The record of this case is unfortunately, as so often unavoidably happens in private practice, not so complete as might be wished. But it exemplifies two points of interest. First, as to the mode in which the head enters the brim in this kind of deformed pelvis. Dr. Champneys, who in, his paper on "The Obstetrics of the kyphotic pelvis,"[1] has given us the most comprehensive and exact account of the mechanism of labour with this deformity that we possess, comes to the conclusion, judging from the published reports of cases, that a position more transverse than usual is common. In the discussion on that paper, Dr. Galabin remarked, and writers quoted by Dr. Champneys had also pointed out, that we should expect the position of the head at the brim to more approach the antero-posterior diameter than is usual. The present case bears out what would *à priori* have been expected, and suggests that the published accounts contain, as collections of published cases often do, an undue proportion of exceptional cases. The position of the head, as ascertained by examination, and as afterwards shown by the impressions of the blades of the cephalotribe, was rather nearer the antero-posterior position, and certainly not more transverse than usual. The head was also more flexed than is common, a condition which accounts for the cephalotribe having seized it above the eye.

[1] Obst. Trans., Vol. xxv.

The case is also interesting as one of relative shortness of the cord; that is, a cord of natural length, shortened by being twisted round the body of the child. It exemplifies the "spontaneous evolution" described by Dr. Matthews Duncan[2] as occurring in that condition. Dr. Duncan says: "during the evolution the fœtus rotates so as to bring its anterior surface to look forwards. This rotation is in a direction such as to partially undo the encircling and thus diminish the strain on the cord; and the strain on the cord is the cause which produces it." This quotation exactly describes what occurred in the case now reported.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CUMBERLAND INFIRMARY, CARLISLE.

INTESTINAL OBSTRUCTION — ABDOMINAL SECTION—ARTIFICIAL ANUS MADE IN A MECKELS' DIVERTICULUM — DEATH ON THE TWENTIETH DAY.

By H. A. LEDIARD, MD., F.R.C.S. Eng.,
Surgeon to the Infirmary.

Jane R., aged 47, was admitted on June 4th, 1884. One week previously she was suddenly attacked with pain in the umbilical region, accompanied by vomiting, followed by constipation. The patient was first seen by me, in consultation with Dr. Harris, of Dalston, on June 4th. Her expression was anxious; the vomiting was constant and fæcal in nature; the abdomen was slightly distended, and marked with the outlines of coils of intestine; and as it was considered probable that an operation would be called for, she was removed to the infirmary. After reaching the hospital all vomiting ceased, and although the bowels were very imperfectly relieved by enemata, the patient improved. Distended coils of intestine in motion could always be traced, so that a sharp out-look was kept for a return of the urgent symptoms. There was no indication of any kind as to the seat of obstruction, but as the uterus was less mobile than natural, it was thought possible that some adhesions about it might have entangled a coil of intestine.

Upon the evening of the 10th, or seven days after admission, the fæcal vomiting returned, and the next morning the patient was much worse. After consultation, it was decided to explore the now distended abdomen.

An incision between the navel and pubes exposed coils of small intestine, which were searched in vain for the seat of obstruction; towards the lower part of the ileum a diverticulum was found, which was held in view, whilst the cavity of the pelvis was explored with a finger; some morbid adhesions were felt behind the uterus in connection with the broad ligament, but no cause for the obstruction was apparent; the large gut was not seen, and it was not considered wise to enlarge the incision for further examination.

The diverticulum, which was as long and as thick as the thumb from the carpo-metacarpal joint, and somewhat expanded at the extremity, was cut away, and the base stitched to the abdominal wall.

The patient did not suffer from shock, and with the exception of a single return of fæcal vomiting, after

[2] Obst. Trans., Vol. xxiii.

the wound was dressed in the evening, all went on well. Large quantities of liquid fæces passed through the artificial anus, and the healing of the wound progressed satisfactorily.

On June 18th, eight days after the operation, she began to pass motions *per* rectum, and the fæcal matter from the artificial anus began to diminish, so much so, that it seemed as if it would be necessary to close up the wound, and allow the rectum to perform its function unaided.

On June 29th the patient suddenly became worse, fæcal vomiting, absent for twenty days, recommenced, and she died in a state of collapse on the following day.

On *post-mortem* examination, the artificial anus was found unobstructed, but a coil of small intestine was bound by well-organised adhesions to the intestine which had been opened; no peritonitis was present, but there was a suspicious injection of the peritonæum.

Remarks.—In the absence of any self-evident cause for the original obstruction, it is suggested that peristalsis was checked in some portion of the small intestine low down, and that the artificial anus relieved this; and then, that again peristalsis was arrested by the adhesion of a coil of gut in the vicinity of the wound. The *post-mortem* record was by no means as full as could be desired, but probably a more prolonged examination would not have brought any further information to light. The points of interest which seem to stand out are :—(1) that the onset of the pain and vomiting was coincident; (2) that without rise of temperature or much swelling of the abdomen these symptoms lasted for one week, when the vomiting became fæcal; (3) for seven days all symptoms, except visible peristalsis and partial constipation, were in abeyance; (4) that on making an artificial anus low down in the small intestine, the improvement commenced and continued uninterruptedly for twenty days, when the patient died with a sudden return of fæcal vomiting. There is always a remarkable interest attached to cases of intestinal obstruction, not only from the variability of the symptoms, but also from the kind of pathological puzzle which is presented to the surgeon to make out. That a slight adhesion of a portion of intestine is sufficient to arrest normal peristalsis has been often shown. Sir Spencer Wells has recorded a death after ovariotomy from this cause; and some years ago I opened the colon in the loin for intestinal obstruction, and came upon collapsed bowel, the cause of the obstruction being the adhesion of a portion of the circumference of a bit of small intestine to the edge of the umbilicus. In this case the navel projected but very slightly, and presented a ring capable of containing a surface of gut not larger than a shilling.

TWO CASES OF FRACTURE OF THE PATELLA TREATED BY SILVER SUTURE.

The following cases are, I consider, fair samples of what may be expected to happen in carrying out this method of treatment, advocated more especially by Sir Joseph Lister.

Case I.—James R., aged 25, living at Patterdale, and working at the Silver-Lead Mines, so well known to tourists ascending Helvelyn, was admitted on May 30th, 1883. He said that six months previously he was thrown from his horse, falling he did not know how, for he was stunned, but his left knee-cap was broken, and attended to by a bone-setter, as is the common custom amongst the lower classes in Cumberland and Westmorland. At first the fragments were not very far apart, but they have been gradually separating.

The patient was robust and healthy. The left patella was transversely fractured, the fragments being about 1½ inches apart; very little tissue of any kind intervened between them, for the articular surfaces of the femur and tibia could be felt with ease. He was able to flex and extend the limb, but the former movement was imperfect, and the latter feeble. The chief complaint was that the limb was not trustworthy, "letting him down" whilst walking.

On June 1st, with strict antiseptic precautions, an incision was made over the knee, and the joint and fragments exposed; very little uniting tissue lay between the broken surfaces. The edges were freshened with a saw, but although the tendon of the rectus was divided subcutaneously, they could not be brought into exact apposition. Two silver wire sutures were passed through holes drilled in the fragments, and two drainage holes cut, one on either side of the joint.

The subsequent history may be summed up as follows :—Great pain in the joint with swelling, free escape of synovial fluid; abscesses in many places round the joint, but probably not within; the suppuration may be described as aseptic, and the gauze and spray precautions were continued up to the end, some three months, a weary time for patient and surgeon, and much anxiety probably to both. With visions of a stiff joint and even amputation continually present, the suppuration subsided, the wires were withdrawn, and the patient went home.

In July of this year, *i.e.*, thirteen months after the operation, the patient came to show himself. The joint is sound and healthy, the patella is still ununited, but the fragments are half inch apart instead of 1½ inches, and the limb never lets him down. Upon the other hand, he cannot bend the joint to more than an obtuse angle, although he is perfectly satisfied with the result. The nurse made great complaint of the restlessness of the patient whilst under treatment, and this may have contributed to the imperfect result. Experience of this kind would make any surgeon hesitate before again attacking a case of six months' duration.

Case II.—Before dealing with this man, I had the advantage of reading Sir Joseph Lister's address at the Medical Society of London, and I endeavoured to follow his directions; indeed, the wire I used was courteously sent me by him.

William B., aged 30, living at Maryport, fractured the left knee-cap on October 22nd, 1883. It appears that, with the limb flexed, the handle of a crane struck the knee, and he was sent to the infirmary by Dr. Dalzell two days later. The knee-joint was distended with a semi-fluid mass, the joint was discoloured from extravasated blood, the mark of the crane handle visible, but the patella was only felt with difficulty.

On the 26th the joint was aspirated without materially reducing the swelling, but in a few days the effusion and swelling declined, and it was possible to see that the knee-cap was rather unequally fractured transversely, and somewhat obliquely, there being but half-an-inch between the fragments.

On November 14th a thick silver wire was passed through the bones, one drain cut low down on the outer side of the joint; the bones came together easily enough, and under strict antiseptic precautions, the wounds healed in a very short while. The ends of the wire were twisted and hammered down, but probably this was badly done, for on moving the knee a pricking was felt, and as this continued the wire was withdrawn upon February 11th, 1884, the patient returning for the purpose. The union was as perfect and satisfactory as could be desired, and although the patient could not kneel, he could walk well enough. It was our intention to give him ether and bend the joint, but he got drunk, and was discharged from the infirmary and has not been seen since.

My experience thus coincides with the results obtained elsewhere, and it comes to this, that with good material to work upon and a recent fracture, good

results may be looked for; but even with good material, an old-standing fracture will be better left alone; for I regard the gain in the first case purchased far too dearly at the risk to which the patient was exposed.

I believe that these cases will be more usefully published, without waiting until half-a-dozen have accumulated, seeing that years may pass before further suitable opportunities occur.

Medical Times and Gazette.

SATURDAY, OCTOBER 25, 1884.

The past week has been made memorable by a most important statement communicated by Sir Joseph Lister to the Medical Society of London, on the opening of its one hundred and twelfth Session on Monday evening last. The father of antisepticism always "draws", and there was a large number of Fellows present. After a few words of greeting, Mr. Durham, the President, referred to the general prosperity of the Society. Its present condition and its future prospects, he said, were alike satisfactory. Their new rooms fulfilled their purposes well; the library was being gradually got into working order, and the financial condition was such that, when all the year's expenses had been paid, there was a respectable balance in hand with which the first instalments of their funded debt could be met. The losses among the Fellows, whom the Society had to deplore, included Sir Erasmus Wilson. A vote of condolence to Lady Wilson was carried unanimously. The President said the number of Fellows was increasing, and the amount of work done, no less than its quality, was more satisfactory than it had ever been before.

Sir Joseph Lister then commenced his address on corrosive sublimate as an antiseptic dressing, an abstract of which is published in another column. His audience listened with intense interest to what must fairly be admitted as a recantation of his *absolute* faith in the modes of dressing hitherto in use. "When," Sir Joseph said, "in an address delivered at the opening meeting of last session, I expressed myself in what some of my hearers regarded as terms of overweening confidence in the trustworthiness of antiseptic treatment, I little thought that, a year later, I should have to tell you of failures on my own part." Such an admission on such a subject and from such a man will be heard with widely different feelings; by a few probably with pleasure and exultation, but by the majority of surgeons, and especially continental surgeons with something akin to consternation. The failures fortunately deal only with the methods, and if we may say so, not with the most approved methods, although they occurred to Lister himself. After a most careful consideration of the subject, the failure was traced to imperfection in the manufacture of the gauze which had been used. It appears that Sir Joseph Lister was using eucalyptus gauze. Now eucalyptus oil is very volatile, and owing to the length of time during which the gauze had been exposed, a considerable portion of this oil had been volatilised, and thus the gauze had become less effectual than usual. Carbolic gauze, though liable to the same deterioration, keeps good a longer time, and moreover, carbolic acid is more potent than eucalyptus; it is probable therefore that had freshly prepared carbolic gauze been used, the failures would not have occurred.

With characteristic energy, Lister, nothing daunted and in no way shaken in his confidence, commenced some experiments with corrosive sublimate, a non-volatile substance, and a germicide of great power. Unfortunately, solutions of even 1 part in 500 cause excoriation of the skin if applied for any time, while if weaker solutions are used, the germicidal properties would of course be reduced. It became a question then whether means could be devised for lessening the irritating properties of this drug After careful experiments, it is found that albumen possesses this property, and that if the salt be dissolved in blood serum, solutions containing as much as 1 in 30 can be used without any unpleasant effects. Thus, then, an antiseptic of great power, easily obtained, easily manipulated, and very much cheaper than carbolic acid, is ready to hand in corrosive sublimate dissolved in a solution of albumen. Sir Joseph Lister, at the instance of the President, promised to communicate some further details as to the methods of using this new antiseptic. They will be looked forward to with great curiosity. Meanwhile, it may be said that any absorbent material after being soaked in a solution of "albuminate of corrosive sublimate" and dried becomes a reliable surgical dressing.

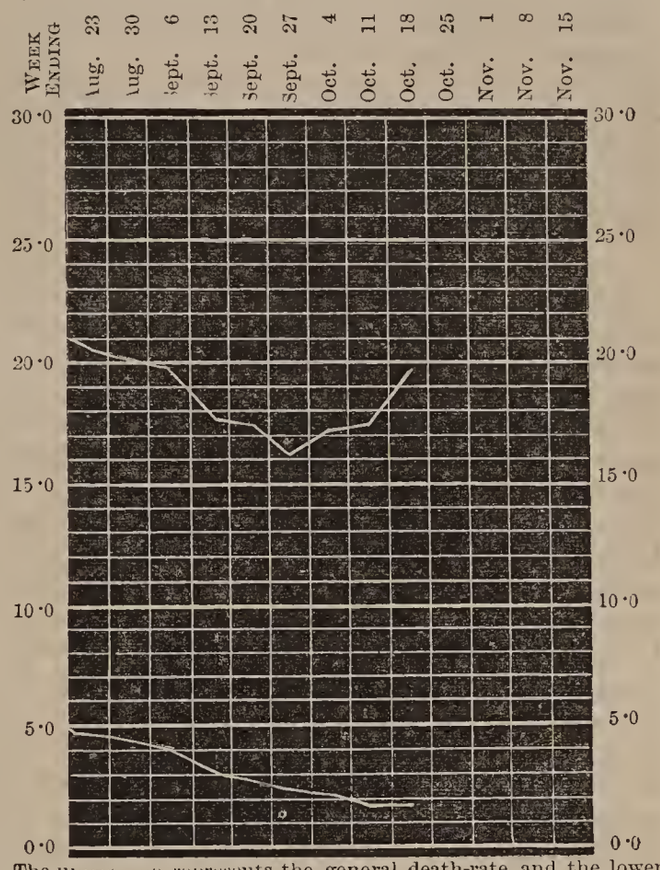
On Saturday last, St. Luke's day, the Harveian Oration was delivered at the Royal College of Physicians, by Dr. Russell Reynolds, in the presence of an appreciative audience. We give a somewhat abbreviated version of the oration in another column, and everyone who peruses it will admit that Dr. Reynolds has treated a well-worn subject with singular freshness. But that periodical orations in honour of Harvey and Hunter now and then bring out a scholarly and thoughtful address like that of Dr. Reynolds, we should be inclined to entertain grave doubts as to the advisability of these reiterated laudations of the two deceased worthies. Their lives and writings have been ransacked, revolved and commented on, until there is scarcely anything left for future orators. Meanwhile, there are other deceased masters of our own and other countries whose lives have been hardly studied at all. Would not Harvey, if he could look in upon us, think himself more honoured by our bringing his spirit to the study of other lives, than by reiterated commentaries on his own? Is it not a little provincial, this persevering worship of our two local heroes?

The opening meeting of the Pathological Society this session, on Tuesday last, was well attended, a long and attractive programme having been provided. The chief interest centred in Dr. Legg's and Dr. Acland's cases of hæmophilia and purpura. Fatal cases of the

former disease are still rarities, so that every case has to be made the most of. That Dr. Klein should not have been able to detect any changes in the blood vessels is a fact of great importance, as excluding these from being the real seat of the disease; so that, notwithstanding the antecedent probability in their favour, it seems as though we should be obliged to fall back upon the blood theory after all. The joint changes were most clearly laid down by Dr. Legg, who speaks with some authority on the subject, having recorded three out of the four cases in which, up to the present time, the joints have been examined. Dr. Legg attributed his case of purpura, with good reason we think, to syphilis, all other causes having been fairly excluded.

A DISCUSSION as to the cause of abscess of the liver generally results in the same conclusion, viz., that English observers have never found the large abscess apart from dysentery, and the reading of papers on this subject, by Dr. Turner and Dr. Carrington, led to much the usual conclusion. As no Anglo-Indians were present, Dr. Wilks did battle for them, though admitting that his own experience led him to believe in the close relationship between the two diseases. Mr. Pepper and Dr. Silcock had a grand case of bone disease in connection with disease of the cord and peripheral nerves, though the lesions of the nervous system were so extensive that the relation of cause and effect was not quite so clear as it might have been. The disease of the peripheral nerves was so extreme that it could not be supposed to have travelled down from the cord. The lesions in the cord itself were those of diffuse myelitis, both acute and chronic; and as the vessels were found to be much diseased, it would seem probable that this may have been the starting point of the malady. Another contribution to nervous pathology was afforded by Dr. Hadden, who had had two fatal cases of the so-called alcoholic paralysis, in which careful examination of the central nervous system had revealed no lesion, though in one case peripheral nerve degeneration was well marked.

THE death-rate in London last week was 19·7 per 1,000, exactly 2·5 per 1,000 higher than it was a fortnight ago. As will be seen directly, this rise is entirely due to the diseases of the respiratory system, the zymotic death-rate showing no increase at all over last week. Scarlet fever caused 27 deaths, or only one-third of the corrected average; measles had 12 deaths, being 3 more than last week, but 16 below the average; and diphtheria numbered 21 victims, as compared with 16 last week. The deaths from diseases of the respiratory system amounted to 286, 60 more than last week, and nearly double the amount recorded five weeks ago. Bronchitis is credited with 156 of these and pneumonia with 78, the vast majority of the deaths so caused, viz., 144, being either of persons over 60 or of infants under 1 year. The highest death-rates amongst the 28 great towns were Bolton 30·2 and Preston 29·9. The Registrar-General for Scotland records that the deaths in the 8 principal towns from measles, scarlet fever, and whooping-cough were each 18, a somewhat unusual coincidence. The deaths from



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past nine weeks.

bronchitis, pneumonia, and pleurisy together amounted to 96, of which Glasgow furnished 51.

THE death of Dr. Samuel Rabbeth, the Senior Medical Officer of the Royal Free Hospital, removes from our ranks one who had given great promise of rising rapidly in the profession, both on account of his mental powers and of that geniality which made him one of the most popular men of his school. It would be difficult to point to any who have surpassed him in this happy combination so valuable to medical men. He possessed that indefinable charm of manner and conversation which so certainly gains friends in all quarters. During his student career at King's College, although he obtained sundry prizes, it was always felt that he was one who was working well within his powers, and this opinion was justified during the time that he held office as Assistant House Physician and House Physician at King's College Hospital, an amount of strength of character, tact and skill being suddenly evolved with the best possible results. In grappling with the practical work of the profession, he seemed to have found his proper sphere; hence no surprise was excited on his being awarded the Scholarship and Gold Medal for Obstetric Medicine at the last M.B. examination at the University of London. It was thought that he was but putting forth his full strength and realising the high expectations of all who had watched his career from its commencement. Now, alas, that career is cut short, but in a way which further bears testimony to his high sense of duty. His death adds another to the long list of doctors who have sacrificed themselves in endeavouring to save the life of their

patient. It is the old story of devotion and of disregard for personal risks involved in sucking at a tracheotomy tube to remove an obstruction due to diphtheria. We lose one whom we can ill afford to spare, one full of vigour and full of promise, one whose death is truly regarded by the lay press as an act of heroism, but none the less we lose him in an act of self-sacrifice which makes us proud of having such men amongst us.

Such an example of self-sacrifice is by no means unique. The number of deaths from a similar cause, especially in the children's hospitals in France, shows that our profession is truly one to be proud of. In every case the doctor has been fully aware of the risks he was incurring, and yet, apart from the published accounts of fatalities, we have seen this act repeatedly performed, both in the wards of a general hospital and in those of children's hospitals. The necessity for immediate action arises, and, although the medical man would warn others of the dangers involved, he unhesitatingly takes that course which he deems best calculated to secure the recovery of his patient. "Do as I tell you, and not as I do," is a medical rule which has a special significance in view of danger. Just as we have students always willing to help in curing aneurisms by digital compression, to assist in saving life by transfusion, so too we always find that in the hour of need there are few men in the profession who hesitate to place their lives in danger to save that of their patient. Long may it be so.

Since our last issue we have been favoured with the following particulars regarding the new entries at the metropolitan schools of medicine. At University College there are 76 full entries and 60 for the Preliminary Scientific Examination. At Guy's 68 students have entered for the full curriculum, 8 for special classes, and 3 for the preliminary scientific class. At the Middlesex there are 39 full and 4 occasional students. At St. Thomas's 86 full entries, and 24 special. At the Westminster there are 9 full entries, and 9 partial. At King's College 37 full students and 27 occasional. At St. Mary's 35 full students and 21 occasional students. At Charing Cross 46 full and 12 partial students.

The vacancy in the office of Curator of the St. Thomas's Hospital Museum, caused by the transference of Mr. Stewart to the College of Surgeons, has been filled by the appointment of Mr. S. G. Shattock, F.R.C.S. Having held a similar appointment at University College for the past five years, Mr. Shattock carries with him very considerable experience; moreover, he possesses in an unusual degree the qualifications which go to make a good and successful curator—varied knowledge, technical dexterity, unwearied industry, and a great love of his work. We congratulate Mr. Shattock on his appointment, and St. Thomas's Hospital not less on having secured in him so efficient a substitute for the able curator they have just lost.

The reply of Mr. Fitch to Dr. Crichton Browne's trenchant letters in the *Times* is a valuable support to the now obvious contention that a good case for enquiry into "*Over-pressure*" has been made out. All the points on which Mr. Fitch attempts to answer Dr. Browne are of subordinate interest, and fail to touch the main question. Mr. Fitch declines to enter into the "personal questions" which he says Dr. Browne has discussed, and thus evades the grave difficulty of showing himself to be either a weighty witness or a fair controversialist, for the so-called personal charges made by Dr. Browne, and not unsupported by evidence, were those of bias and inaccuracy in important matters of fact. The extreme lameness of Mr. Fitch's defence is well exemplified by his venturing to justify his previous statement that "it was in his company that Dr. Browne paid most of his visits to Elementary Schools;" by alleging that "in at least seven or eight of the schools he saw the beginning, and in some of these much more than the beginning, of the kind of enquiry described in his memorandum"! On this head, however, which was by far the most serious part of Mr. Fitch's original attack, we have already seen that Dr. Browne's reply is conclusive. Another attempt that Mr. Fitch makes to rehabilitate himself, is by means of a sorry quibble that a report asked for and sent in to the Vice-President of the Education Department is not quite the same thing as a report to the department itself, intended for parliamentary publication. We may freely concede to Mr. Fitch that it is not; but he unfortunately ignores the fact that Parliament was formally told of the promised enquiry by Mr. Mundella himself, and that it was not to be supposed that nothing more would be heard of it. In answer to Dr. Browne's allegation that his opponent has occasionally misquoted him, Mr. Fitch may perhaps have shown that in one or two instances, regarding "payment by result," Dr. Browne's report was corrected in proof, and that he had himself only the MS. before him when he wrote his criticism; but for the most important of his alleged misquotations, by means of which he managed to impugn Dr. Browne's logic, he apparently has no excuse to offer. Mr. Fitch has, indeed, had a very bad time of it since he obeyed his chief's behest in penning the memorandum, and is doubtless sincere when he says that he shall take no further share in the personal part of the controversy.

The clear opinion of the lay press generally is that there is an important case for investigation; and this, it must be remembered, is the whole of Dr. Crichton Browne's contention as stated in his original report. It is only those who shut their eyes to the possibility of over-pressure who have represented Dr. Browne, and those who largely agree with him, as urging that a change ought to be promptly made in the Education Code. No better outside evidence of there being a good case for investigation can be given than the changed sentiments of the *Times'* leader-writer on this matter. A month ago, the leading journal said that Dr. Browne's report showed a "foregone conclusion in almost every page, that his reasoning was deplorably loose and inconsequent," and that "the Education Department might far more safely be trusted in this

matter than Dr. Crichton Browne." But now we find the same authority saying that "Dr. Browne has established the laboriousness of the investigation and his competence to undertake it, and has carried the war with some effect into the enemy's country." The *Times* is further of the opinion that Dr. Browne's report "raises too vital an issue and is too much in accordance with probability to be left neither proved nor disproved," and regards with approval the promised discussion of the matter by the London School Board. We trust that the School Board will institute an intelligent enquiry into this question ; but must still hold that its importance necessitates its grave consideration in higher quarters.

We have already had evidence that the outcry against the dangers of educational over-pressure is not a mere English "fad." M. Jules Simon has been lately raising his voice in lamentation and in warning inspired by a consideration of the number of subjects supposed to be taught in the schools of his own country, and the amount of time devoted to their study. He deplores the steady increase of the pressure—"more algebra, more chemistry, more classics ;" and while admitting that an adequate re-arrangement of the details of study would have been too lengthy a business to allow of any prompt relief being afforded, he is not content that, by a recent decree of the Minister of Education, the hours of study exacted in the *lycees* have been restricted, while the range of subjects continues unreduced. The French schoolboy is in many respects so un-English in his habits of play that he lacks much of the healthy exercise which comes as a welcome and most valuable antidote to the evils of protracted mental application in the case of the children of this country. It is not wonderful, therefore, that, despite his generally quicker and more precocious wit, he should suffer from educational strain at least as much as they.

Last week, writes our Vienna correspondent, witnessed two important ceremonies in connection with the University here. The first was the formal opening by the Emperor of the magnificent new buildings of the University, which were commenced fourteen years ago. The ceremony took place on Saturday week at 2 o'clock. The Emperor was attended by four of the archdukes and by a brilliant suite. He was met at the entrance by the Rector Magnificus, Dr. Hermann Zschokke, Professor of Theology, by the Pro-Rector, Professor Lang, and the Deans of the four Faculties of Divinity, Philosophy, Medicine and Law, and after mutual compliments was conducted to the "Festsaal," which had been richly decorated for the occasion. Here were assembled all the professors and docents of the University, and a certain number of the students. The Rector, addressing the Emperor, gave a brief sketch of the history of the University, showing how five centuries had elapsed since the University, originally founded by Rudolph IV., had been reorganised by Duke Albrecht III., who made it a real "universitas litterarum," and how a new University building had been projected by his present Majesty in 1854, but had not been commenced till 1870, when the Emperor had offered them a site in one of the most beautiful situations of his capital. The magnificent edifice was now complete, receiving its final dedication from the Emperor, and the only source of regret was that its gifted architect had been taken away from them before he could witness the finished work of his hands. "This University," concluded the Rector, "is sacred to the pursuit of science and culture, its function is to extend the bounds of knowledge by scientific investigation and literary labour, it is the focus of the four faculties, united into one body for half one thousand years, faculties which, however they may differ, have but one common aim, viz., to verify and make manifest the harmony of human knowledge, to prepare faithful and earnest servants for the State and Church, and thus to further the intellectual and material progress of their common native land." The Emperor replied in suitable terms, and after the repeated "Hochs" with which his words were greeted had died away, he was conducted round the building, passing through the library and lecture-rooms. When he appeared in the "Arcaden-Hof" he was greeted with loud acclamations by the students, who had been allowed to assemble there after giving their word of honour to the Rector that they would behave in a seemly manner. The Emperor before leaving expressed his satisfaction at seeing so many students assembled to receive him. It may be remarked that this has been the first *fête* of the kind at which the maintenance of order has been entrusted, not to policemen or soldiers, but to the students themselves. On the same day the students laid a wreath of flowers on the tomb of the Freiherr von Ferstel, the architect of the University building, whose untimely death has been alluded to above.

The second ceremony, which took place on the 12th inst., at 12 o'clock, was the inauguration of Dr. Hermann Zschokke as Rector Magnificus of the University for the ensuing academical year. It is a long-standing custom in the German Universities to elect every twelve months a rector magnificus, who shall represent the whole University and direct its affairs during his year of office. The rector is elected in turn from among the members of the professoren-collegium of each of the four faculties. Last year it was the turn of the faculty of philosophy and Professor Lang was rector. This year it is the turn of the faculty of theology and the ex-rector, Professor Lang, assumes the office of pro-rector. The inauguration of the new rector takes place with some ceremony at the beginning of each academical year in the presence of the representative of the Minister of Education, the professors of the different faculties and the students. This year the ceremony took place for the first time in the newly-opened Festsaal of the University. At twelve o'clock the rector, the pro-rector, and the members of the senate entered the hall, Wagner's "Tannhäuser" March being played. Professor Lang gave a highly satisfactory report of the progress of the University during the last two years, mentioning the names of the professors and docents of the University who had died during that period, and then, amidst the

applause of the students, handed the rector's insignia of office to his successor. The new rector ascended the rostrum amidst a fanfare of trumpets, and proceeded to deliver an address. At its conclusion the University Gesangsverein sang the "Gaudeamus," and the ceremony closed as it had commenced, with the "Tannhäuser" March.

Lectures have already begun in the Vienna Medical School. Professor Auspitz delivered his first lecture on Monday week, when he gave an account of the labours of the late Professor Zeissl, whose wards and clinic have been placed under his charge. Several Ministerial Councillors and teachers in the University were present at the lecture, the subject of which was, "Our Modern Standpoint with regard to Syphilis." The Emperor has conferred the title of Ritter von Edenberg on Dr. Charles Langer, Professor of Anatomy. Dr. Schnitzler, Professor of Laryngology at the Vienna Polyclinic, has been appointed director of that institution on the promotion of Professor Auspitz.

The distinguished *savant*, Geheim-Rath Dr. R. Koch, has refused the invitation to Leipzic to fill the chair left vacant by the death of Professor Cohnheim, having determined to remain at Berlin, where certainly he will find greater scope for his genius than by engaging in an ordinary professorial career. It is, however, understood that before taking this step he has received positive assurances as to his future position, and no long time will elapse before he is installed in the Chair of Hygiene, which is to form part of the new hygienic institute which is to be founded on a very comprehensive scale. With this will be associated the directorship of the *Reichsgesundheitsamt*, which has remained in abeyance since the resignation of Dr. Struck.

Some further communications may shortly be expected from Professor Koch on the subject of the properties of the comma bacillus. It is prominently announced in a Vienna medical journal that he has succeeded in proving the communicability of cholera to animals by means of the bacilli and that rabbits have been so infected. Dr. Koch's own convictions of the correctness of his views, as set forth in a late number of the *Berliner Klinische Wochenschrift*, were referred to and reiterated by Professor Virchow in a short address delivered last week in Berlin.

An important link in the chain of circumstantial evidence which must eventually convict or acquit the comma bacillus of the crime of producing cholera, has lately been furnished by Drs. Finkler and Prior, of Bonn. It was recently announced that these observers had detected the microbe in the dejections of cases of sporadic cholera. They have now published some further facts in connection with it which go far to prove that its life history is a more complicated matter to decipher than was at first supposed. In appearance, the comma bacillus of the sporadic cases is not to be distinguished from that described by Dr. Koch. The bacilli appeared, however, in the earlier alvine discharges only; examinations of the later excreta showed only small cocci, arranged in chains and resembling those found in the intestines during typhoid fever. The explanation of this was obtained by means of cultivation in various media, by which it was found that the period of reproduction of true comma bacilli is limited and does not extend beyond 72 hours. At the end of that time only small cocci are to be seen. This rapid development and disintegration forms the explanation of many otherwise unaccountable failures to find the bacilli in suspected places. If, however, these microbes are so very short lived in their comma-shaped form, it follows that they must exist permanently in some other stage of development. Dr. Finkler thus describes the various processes of formation, as far as he has been able to follow them. "After some time the bacilli become thicker, swell up and appear transparent, they then take the form of a hone, at both ends of which a kind of small spur becomes attached. These 'spore-bearers' then throw off their spores which in their turn grow to be small rods; these are at first straight and afterwards take on a curved form. These curved rods grow into variously twisted thin threads and spirilla, which become thicker and develop into shapeless, or in some cases S-shaped figures. A little later there appear, amongst these spirilla, any quantity of small distinctly curved comma bacilli. All these bacilli only attain to a certain size and then again become 'spore bearers,' and the same process is repeated." As regards the existence of a permanent form, Drs. Finkler and Prior succeeded in obtaining perfect bacilli by cultivation from the excreta, fourteen days old, of a cholera patient, in which, previous to the cultivation, not a single bacillus or spirillum could be detected. In the mode of their development, therefore, a marked difference would appear to exist between these otherwise similar bacilli. If Koch's comma bacillus should on further examination be found to undergo similar changes to that of *cholera nostras*, as these sporadic cases have been christened in Germany, it will become of still less importance as a diagnostic sign than it is at present. Not the cause of cholera, but the cause of the cholera bacillus will then form the burning question of the day.

Naples, if we may believe some of the highest authorities in Italy, is really about to turn over a sanitary new leaf. The sewers it is declared will be the most urgent object of attention. A wide street is to be made through one of the most perilous quarters of the town, and new quarters are to be provided for the operatives. The destruction of houses found to be insanitary, as well as of wells and cisterns, is promised, and it is to be the duty of the municipality to enforce the use of pure water only. Let us sincerely hope that these excellent resolutions will not remain on paper only, but that no time will be lost in giving effect to measures which seem to show that at length those in authority are beginning to believe that there is perhaps after all something in English ideas of how to meet cholera.

The statement made by the veteran Dr. Ricord at a recent meeting of the Paris Academy of Medicine, deserves the careful consideration of his countrymen. He stated that his first experience of cholera occurred in 1832, when he was left in sole charge of 600 hospital patients, his two colleagues having fled from Paris in a fit of panic. "I took note of the fact that not a single non-choleraic patient caught the disease, and that the doctors, house-surgeons, attendants, and nurses who attended the cholera cases exclusively, enjoyed complete exemption from the malady. This convinced me that the cholera could not be contagious; and I have seen no reason to alter my conclusion, viz., that cholera breaks out spontaneously in given localities, and that quarantines are not only frivolous and vexatious, but positively dangerous. That cholera is generated spontaneously does not imply that it has not a special cause; and what that cause is I do not know. The only sensible quarantine would be that which would prevent a man in good health from migrating to a cholera centre. Common sense and prudence should suffice for this."

The Faculty of Physicians and Surgeons of Glasgow recently called the attention of the Medical Council to the fact that within the last three months two forged diplomas of Doctor of Medicine of the Vienna University have been presented to it by candidates for its final examination. The fictitious character of the diplomas was detected in each case by the presence of grammatical errors in the part filled up in writing. The forms otherwise appeared to be genuine. The Registrar of the Medical Council communicated with one of the counterfeit diplomates, who stated in reply that he had seen an advertisement in the *Lancet* which led him to visit a certain practitioner, living in Paddington. He was catechized and told he was eligible for the Vienna M.D. He accordingly set out for the Austrian capital, but on his arrival found that his name had not been entered, and that examinations were only held in June or July. On his return, the Paddington practitioner, who had represented himself as "M.D., and Gold Medallist of the Vienna University," sent him his diploma, charging him the modest fee of 30*l*. "Therefore I concluded that my examination was conducted through the agency of Dr. —— as interpreter." The Glasgow Faculty, commenting on the two cases, naïvely remarks that they "appear to indicate the existence of some kind of organisation for the fabrication of counterfeit diplomas." They appear also, we opine, to indicate the existence of a considerable amount of credulity in the persons who are taken in by such an organisation. If this very silly gentleman who thought he could get a first-class degree—for the Vienna degree is one of the best on the Continent—by a short conversation in a back parlour in Paddington, had taken the trouble to study Dr. Hardwicke's "Medical Education and Practice"—a book which ought to cut the ground from beneath all bogus diploma-dealers—he would have seen, on almost the very first page, that the conditions for the degree are very different from those which he fulfilled. Let us hope that this case will serve as a warning to all aspirants to foreign and colonial degrees. They will get much more reliable information from Dr. Hardwicke, than from any advertising diploma-monger and that about one hundred times more cheaply.

THE LESSON OF THE ENTRIES.

We have often before called attention to the steady falling off in the yearly number of entries at the London hospitals, and we mean to call attention to it again and again, for in the whole range of subjects relating to medical education in this country, there is none which demands careful thought and bold action more than this. In 1879 the entries at the eleven London hospitals numbered 731. In 1881, the year in which the largest aggregate of new students that has yet been registered in the United Kingdom joined the profession, the London entries numbered 722, the next year, 1882, they fell to 634; in 1883 they again fell to 605; and this year there is little sign of increase. During the same period, the entries at the Scottish schools have shown a steady rise, for, according to the Medical Registrar's returns, 540 entries were registered in Scotland in 1879, while in 1883, the last year for which we have returns, the number of entries was 596. That is to say, whereas six years ago four students entered in London for every three that entered in Scotland, the numbers last year were almost exactly equal, and this year it will probably be found that Scotland has passed considerably ahead of London. It must be remembered that we are comparing unlikes, viz., the deans' figures in the case of the London schools and the Medical Registrar's in the case of the Scottish. This is necessary because so large a proportion of English students first register when studying at small country hospitals or with a general practitioner, a custom which does not obtain in Scotland. The comparison is, however, entirely in favour of the London schools, for it may be assumed that their several deans do not err on the side of modesty in announcing their returns. The rise of the Scottish and the decline of the London schools is very evident from the following table:—

	1879.	1880.	1881.	1882.	1883.
Total Entries in England and Scotland	1528	1572	1631	1428	1413
Entries at London Schools ...	731	702	722	634	605
Entries at Scottish Schools ...	540	589	567	585	596
Percentage ratio of Entries at London Schools to Total English and Scottish Entries ...	47·8	44·6	44·2	44·0	42·8
Percentage ratio of Entries at Scottish Schools to Total English and Scottish Entries ...	35·4	37·0	34·8	40·6	42·1

It is clear from the above table that the total number of students entering the profession has fallen off considerably within the last few years, but it is equally obvious that the loss and more than the loss has fallen entirely on the London schools. Taking the

average amount paid by each student who enters in London at 100*l.*, it is clear that the Metropolitan schools received from last year's students 7,000*l.* less than they would have done if the *percentage* of 1879 had been kept up; and they received 13,000*l.* less than they would have done if the *number* of entries had been the same in 1883 as it was in 1879. This is perhaps a somewhat sordid if forcible way of setting forth the matter, and we should be sorry for it to be supposed that we are only exercised about the waning prosperity of the London schools, because it means an annual loss of from 30*l.* to 40*l.* a year on an average to some two or three hundred metropolitan teachers. This is the least important aspect of the question. The really vital fact is that a constantly increasing proportion of our future practitioners are getting their whole medical education without once coming into personal contact, except perhaps at examinations, with the best of English physicians and surgeons. The influence of the large array of clinical talent in London, and the advantages of its vast clinical material are being made less and less available in the professional education of British practitioners. There are able teachers both at the Scottish and at the provincial schools, but the combined staff of Guy's, St. Bartholomew's and University College could furnish half-a-dozen sets of Edinburgh professors, and yet the united entry of these three hospitals will this year probably fall far short of that of the modern Athens.

The *causes* of this decline in the popularity of the London schools are not far to seek. The modern student and his friends must be singularly uninstructed if they do not understand that for the bulk of students a London medical education means paying more and getting less than an education at Edinburgh, Aberdeen, Glasgow, Newcastle or Manchester. There is no doubt that in the future the schools whose rivalry London teachers are likely to have most to fear will be Edinburgh and Manchester. Both possess teachers, at any rate in the primary subjects, who are confessedly superior to the teachers in the corresponding subjects at any but the best two or three London schools, and both can give a degree which is within the reach of the average student; at both too education is cheaper than at a first-rate London school. We do not attach very much importance to the latter point. The most expensive school in London, St. Bartholomew's, keeps up its numbers well, and we can scarcely believe that a difference of twenty or thirty pounds in the total amount of fees influences the decision of more than a small percentage of parents, other things being equal. But in the present case other things are not equal. The student who comes back from Edinburgh with his M.B., C.M., is distinctly in a better position than the London student with his two College diplomas. He is not necessarily a better educated man, but he starts in his career with a marked advantage over his London rival. This consideration is no doubt telling on an increasing proportion of aspirants to a medical education, and it is beginning to be generally felt by London teachers that no improvement in their teaching arrangements will have much effect on the entries, unless they can promise the student a reasonably easy degree.

To secure this seems almost hopeless. There are three ways in which it might be done, and each of the three seems blocked by equal difficulties. The London University might lower its requirements so as to bring its M.B. degree within the reach of the average student, but every London graduate would strenuously oppose such a departure from the long-established principles of his University. Opposition on the part of the graduates would not necessarily be actuated by a selfish fear of the depreciation of their degree, for the most influential of them have attained positions in which the relative value of a degree counts for little. They would contend, however, and we should have some sympathy with the contention, that it is very desirable to have degrees of varying difficulty, and that for the University of London to offer a degree to the average student would be to surrender that influence on the higher medical education which it is generally admitted to have hitherto successfully exercised. Such a plea in the mouth of a London graduate would of course preclude his opposing the institution of an easier metropolitan degree. But here we are met with difficulties of another kind.

It has been suggested that the Colleges of Physicians and Surgeons should combine to give a degree in medicine and surgery carrying with it the right to the title of "Doctor." If the governing bodies of the two Colleges were to take up the idea, and earnestly press it on the Government, we have no doubt that they could get a charter which would give them the necessary powers. But they would have to make some sacrifice of sentiment, if not of privilege. No Government would hear of a new degree which was not open to women as well as men, and we may be pretty sure that both the Colleges would need a stronger stimulus than the despairing cry of London teachers to induce them to surrender their darling prejudice against female doctors. Possibly when things get a little worse, and London schools begin to shut their doors one by one, considerable pressure may be brought to bear on the Councils in Lincoln's Inn Fields and Pall Mall, but nothing short of insurrection will convince them that the time has come to accept an accomplished fact and to make their policy square with it.

The third course open would be to establish an entirely new degree-granting body. This way out of the difficulty, though favoured by many to whom we have spoken on the subject, appears to us to be even more hopeless than either of those already considered. It would arouse opposition on all sides. The College of Surgeons would oppose it tooth and nail, and their new friends in Pall Mall might be counted on to back them up. A new University giving a reasonably cheap and easy degree would be a formidable rival to both the Colleges and would possibly in the end relegate them to the position of corporations of consultants. The Government too would think a great many times before it consented to establish a new licensing corporation, and it would certainly refuse to give it that pecuniary support without which it could not come into existence. So all ways alike the difficulties seem insuperable, or only superable when the whole meaning of the recent decline in the London entries has been much more clearly realised than appears to be the

case at present. The question is one, we fear, that will have to wait, but we shall ourselves let slip no opportunity of helping to ripen it, and we shall be glad to receive and publish letters from all who have reasonable suggestions to offer. Meanwhile the London teachers, if they will, may do much to restore the prosperity of their schools, and render them attractive as places of clinical, if not of primary medical instruction. But on this point we must reserve our views for another article.

EXAMINATION FOR PROMOTION.

We understand that it is in contemplation to institute an examination before promoting Surgeons Major to the rank of Brigade Surgeon. It is only natural that such a step should be unwelcome to the Officers of the Medical Staff; but we think their opposition will be based rather on the fear that the new test will be unfair, than on dislike to examination itself. Promotion for some years past has been by seniority, or by selection, and there are valid objections sometimes both to those who have survived to await promotion and to the lucky ones who, for special reasons, have been selected out of their turn. Age and good general conduct are not all the qualities necessary for the higher ranks of the Army Medical Department, which are administrative as well as executive; and personal gallantry and self-sacrifice give no claim at all to professional advancement, although they demand recognition in the shape of decorations or of pensions. Selection has been also exercised in the olden days for not very satisfactory reasons, although of more professional nature. Efficiency with economy, and *particularly* economy, appealed feelingly to the instincts of former rulers, and if, in addition, the cautious doctor was a man of the world, and knew how to make things pleasant all round, he was pretty sure to find himself in or out of his turn a Deputy Inspector General of Hospitals, of the old Army Medical Department. But examination for promotion to be acceptable needs careful watching. Such tests have been, and may again be, greatly abused. When the War Office appointed a Committee some years ago to enquire into the causes which tend to prevent sufficient eligible candidates from coming forward for the Army Medical Department, they noticed in their report the dislike to examinations and the reason why. They said —"We have it in evidence that the examination is directly deterrent to the candidature of some of the most eligible students; and, as a matter of fact, the *competition* has virtually ceased on account of the paucity of entries," and then the Committee proceeded to give the reason why. "During several years the student at the Medical School has been passing examination after examination, in successive branches of his professional education: portions mastered early in the curriculum have been laid aside, and though remembered in general principles, have partly passed, as regards details, from the memory. Anatomy and botany may be taken by way of example. In these subjects a student, it is stated, usually passes early. It is afterwards one thing to remember the broad features of each science, and to know to what text-book to refer for any detail required in practice. It is altogether another thing to be ready for a searching examination into the minutiæ of every bone, muscle, and ligament, and into every subdivision of the botanical classification." The Committee, therefore, while still resolved, to a certain extent, that competition should be retained, recommended "the examination being of a more *practical* character than heretofore."

After the Crimean War, examinations were instituted before promotion to the rank of Surgeon Major. We can well understand why old medical officers should have objected to ill-judged and badly regulated tests. The grievance must have been felt by the authorities to be a reality, for the Warrant of April, 1876, which instituted the ten years' system, *abolished* the examination for the rank of Surgeon Major. There seems no reason why such a test should be re-introduced; but we are doubtful whether examination for promotion to the higher rank of Brigade Surgeon might not be advisable. We are not, indeed, prepared to accept the recommendations of Lord Morley's Committee; they went too far when they recommended "that the system of examinations for promotion should be restored; that between three and seven years service, every medical officer should pass through an examination more especially in practical subjects, such as operative surgery, on which should depend his promotion to the rank of Surgeon Major." We imagine that too many examinations would prove the destruction of the Service. It is an honourable and a good Service enough, but the prizes to be gained are not many, nor particularly well distributed; and many might hesitate to enter the Army if they were required to keep themselves perpetually in training for a scientific contest, more particularly when the accidents of war or service might put it out of the power of a good man to consult his books as carefully as examiners would require. At the same time it would be wrong to allow men to rust, and doubtless there is a temptation to idleness in military life, but it is fostered and increased by the fact that there is no encouragement for a doctor who loves his profession to keep himself in the foremost ranks. The questions put by Lord Morley's Committee to Surgeon General Longmore and his replies deserve consideration. He was asked—"At the present time have Army Surgeons in this country any opportunities, except what they have at Netley, of keeping pace with the progress of medical and surgical science?" He answered—"It is entirely voluntary whatever opportunities they may take for that purpose, there are *none* arranged." It would be hard indeed to punish officers for want of opportunity to perfect themselves; and we see a difficulty about competitive examination, when the necessary training for the race must often be a mere matter of chance. There is no military school excepting Netley, and it could scarcely accommodate all the Surgeon Majors who might try to qualify for promotion. There is hope, however, in another direction. The Committee asked Surgeon General Longmore—"Do you think it desirable that Army Surgeons should have opportunities of passing through a course of practical surgery in a civil hospital?" He replied—

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"It would be difficult to arrange that, but if it could be done it would certainly be advantageous at certain periods." We think that if the instruction can be fairly given to all who honestly seek it, the examination for promotion to the rank of Brigade Surgeon would meet with little objection. If the opportunity cannot be afforded, it would be as well to leave promotion in the hands of the Director General. The authorities of civil hospitals might perhaps be willing to afford aid to their military brethren; but we doubt whether the War Office would let their servants enter the wide open doors in any considerable number. The Medical Department is too shorthanded and too hard worked for its members to be allowed leave even to improve themselves.

REVIEWS AND NOTICES OF BOOKS.

Abstracts of some of the Medical and Surgical Cases treated at the General Hospital for Sick Children, Pendlebury, Manchester, during the year 1883. Compiled by the Medical Staff, pp. 142. J. E. Cornish, Manchester. —This volume, which is the third of the series, contains the records of some 350 cases treated in hospital, including upwards of 100 *post-mortem* examinations and tables, in which the cases of typhoid fever, croupous pneumonia, and chorea are analysed. The general arrangement of the volume is somewhat similar to the University College Abstracts, only in the abstracts under notice no attempt has been made to include every case which has passed through the hospital, only the most important being noticed. The medical portion, which occupies the greater part of the book, begins with some remarks upon the cases of scarlet fever, of which some 215 had passed through the wards during the year, 35 proving fatal. The complications observed, especially the renal and rheumatic, are noted. The histological appearances presented by both the post-scarlatinal and septic forms of nephritis are summarised, and an opinion expressed that the glomerulo-nephritis so often noted in the former is the result of a gorged condition and stasis of blood in the intertubular and glomerular capillaries. In the septic form of nephritis the capillaries were constantly found distended with plugs of fibrin laden with micrococci. Seven or eight cases of scarlatinal synovitis are reported, one with suppuration in the joints. A *resumé* of the treatment employed is given. As might be expected, considerable space is devoted to the cases of general tuberculosis; full clinical records and *post-mortems* are given. Details of ten cases of empyema are given, two of which appear to have been fatal from complication with purulent pericarditis. Under the heading of hepatic disease, a full account, including the *post-mortem* appearances, of a case of mediastinitis with an engorged and cirrhotic liver is given; a case of biliary cirrhosis is also given. Among the cases of nephritis a remarkable case of granular contracted kidney, in a girl of 11¾ years, is recorded. Under diseases of the nervous system the details of ten cases of cerebral tumours are given, including a glioma of the pons, and a periosteal sarcoma growing from the base of the skull. The surgical abstracts deal largely with the results of excision of joints and osteotomy of the femur and of the tibia. Many interesting details are given of cases of periostitis, abscess in bone and acute necrosis. Having expressed our hearty approval of these abstracts we must for a moment exercise our right to grumble. There are two things with which we have to find fault, one is that on p. 32 a distinction is implied to exist between laryngitis and croup, which certainly is not evident from the records of the cases there given. The other is that in the admirable tables and reports of the cases of chorea, no mention is made of the presence or absence of nodules, which, thanks to Barlow and others, have now a recognised place among the associations of chorea.

Transactions of the Obstetrical Society of London; Vol. xxv., for the year 1883. London: Longmans, 1884. Pp. 315.—The volume before us is one rather above the average of the series to which it belongs. By general consent the first place in interest will be given to the paper which stands last in the volume, but is from the pen of Dr. Robert Barnes. In it that distinguished writer considers the mechanism of ordinary labour, and defends the view of Naegelé as to the obliquity which goes by his name. We are sure that the obstetric world will welcome this contribution, not only for its intrinsic value, but also as an evidence of the interest which its much occupied author still takes in the scientific aspect of his specialty. The subject is additionally elucidated by an elaborate geometrical argument by Dr. Galabin, illustrated with diagrams, by which he demonstrates that there is a mechanical advantage gained by the presence of this obliquity. As in Dr. Galabin's other writings on similar topics, the subject is set forth with such accuracy, and argued out so thoroughly, and with strict mathematical method, as to make us wish for further contributions of the same kind from the pen of this able obstetrician. The volume is rich in matter bearing upon the science of midwifery, for beside this paper of Dr. Robert Barnes's, we have two elaborate monographs by Dr. Champneys, one on the obstetrics of the kyphotic pelvis, the other on the influence of the pressure of the femora in modifying the shape of the pelvis, two papers of the highest interest and value, although from the closeness of the reasoning and the highly technical nature of their subjects they may not appear entertaining reading. The tale of good work is not yet ended, for we should not be doing justice if we did not particularise also a short paper by Dr. Braxton Hicks, on the state of the uterus in puerperal eclampsia, a record of original observation, which, from the reputation of the author, will be regarded as authoritative as to the points on which it touches. There are papers by Mr. Lawson Tait, notably one on pyo-salpinx, which will doubtless receive close attention from all interested in the progress of gynæcology. Dr. Henry Bennet, in a paper on the os internum, tries to galvanise a dead (or dying) controversy into life. Dr. Herman describes a case of gangrene of the vulva in an adult, and illustrates it by a summary of the literature of the subject. There are other shorter papers which we have not space to separately mention, and descriptions of many exhibited specimens, as to some of which we must confess we fail to see the reason either for their exhibition or for the mention of the fact in this volume.

Porro's Operation; by Clement Godson, M.D. (Reprinted from the *British Medical Journal*). Pp. 20.—This reprint, from the columns of a contemporary, contains an account of a successful case under the author's care, with some comments thereon; a table of all the cases, 152 in number, that the author has been able to find; and remarks upon the paper, made by different speakers at the time it was read. Many of the cases included in the table have not before been published, and, perhaps, would never have been made known had it not been for Dr. Godson's zeal. He has, moreover, included (but put separately) cases differing slightly from the ordinary Porro's operation, although alike in essentials. The table is one of great value, and for it, we think, the author deserves praise, although his remarks do not exhaust the subject.

Anatomische Vorlesungen für Aerzte u. ältere Studirende; von Prof. Ad. Pansch. Theil 1. Brust und Wirbelsäule. Berlin: Robert Oppenheim, 1884. Pp. 222.—Professor Pansch, of the University of Kiel, is known in Germany as the author of an excellent Students' Anatomy, and of other Anatomical works. The work before us is one dealing with Topographical Anatomy, and the methods of preparing and preserving subjects. The matters embraced in this book are of that special branch of anatomy which is so much neglected in this country, and good descriptions are given of the statics and mechanics of the body, the movements, and disorders of movements, of the vertebral column and of the thoracic parietes. Though we fear that the author's teaching is out of the reach of the majority of our

readers, from the fact of its being in German, yet to any one who has an acquaintance with this language we can recommend Professor Pansch's work as a useful and good exposition of a practical branch of Anatomy. An ingenious use is made of an instrument which is sold in England as a toy, and by the amplification of which, under the name of a tachygraph, the outline of any body, however large, can be rapidly drawn to reduced scale and preserved for future reference. Professor Pansch has executed his task well and has produced a very readable and particularly useful book.

Lehrbuch der Physiologie, für Akademische Vorlesungen und zum Selbstudium. Seventh Edition. By Dr. A. Gruenhagen. Hamburg and Leipsic: Leopold Voss.—We have before us the first and second parts of this favourite German physiology. Originating with Wagner, re-edited by Otto Funke, and later by Professor Gruenhagen, it has now reached its seventh edition. That the work should have been so popular is due no doubt to the fact that it is easily written, and the style is good, which is more than can be said for all similar works. When a work reaches its seventh edition it needs no further recommendation. Professor Gruenhagen, who edits this edition, has preserved the lucid style and clearness of expression, while adding all new facts which are of essential importance. The labours of our own physiologists find copious mention, and the editor has brought his work down to the latest point. Such is the popularity of this work abroad that we feel sure that if a good English translation were only published, it would meet with equal favour in this country. It is being published in numbers now, which will appear at intervals of six or eight weeks, and the whole will be completed in about a year and a half. The price of each number is three marks. The two parts already published include the physiology of the blood, the circulation, digestion and absorption.

ABSTRACTS AND EXTRACTS.

SURGERY.

Cerebral Abscess.—As was recently pointed out in our own columns by Dr. Alexander, the surgery of the cranial cavity has hardly kept pace with the advances that have been made in other regions of the body, and he gave very good reasons why this should be so. In the American *Journal of Medical Sciences* for July, however, there is a paper of much interest on this subject by Drs. Fenger and Lee. The starting point of their paper so to speak was the case of a policeman who received a bullet wound just over the left eyebrow, in consequence of which certain cerebral symptoms made their appearance. The bullet did not enter the cavity of the cranium, and indeed there was no fracture of the internal plate of the bone at all, but a short time after the injury, and when the local damage had been satisfactorily treated, certain symptoms appeared referable only to some intra-cranial disturbance; they were sighing, gradual slowing of pulse, and somnolency deepening into coma. Under these circumstances the doctors determined to trephine. On doing so the dura and pia mater were both found to be healthy, and the surface of the brain showed nothing amiss. A hypodermic syringe was then pushed in and after one or two failures, some turbid sero-purulent fluid was reached at a depth of about two to two and a half inches. Forceps were then inserted and a passage made for the exit of the pus; a drainage tube was put in and the cavity was washed out daily at first with boracic acid, afterwards with carbolic acid. Some delay was caused in the after treatment by the premature shortening of the tube, but ultimately the abscess cavity closed up in the most satisfactory manner, and the patient made a good recovery. In discussing this case, the authors admit the great difficulty in diagnosing abscess especially in the absence of any localising symptoms, but their main object is to direct attention to the treatment. With regard to the exploration by the hypodermic needle, we confess that we cannot regard it as so free from danger as they do. If the needle was driven through the motor region, we should consider that there must be some risk of damage being done which would leave indelible traces, and this is not a mere hypothetical difficulty, for we remember to have read a few years ago, in the St. Bartholomew's Hospital Reports, of a case of a young man who had permanent hemiplegia induced by a knitting needle being pushed into his brain through the orbit. However, we approve of an exploratory puncture in a supposed case of abscess, only we cannot admit that there is no danger in such a proceeding. Again, we fail to see the advantage of tearing the brain substance with forceps, and incline to think that the amount of damage done to the surrounding brain substance thereby would quite outweigh the risk of hæmorrhage involved in the use of the knife. It must be remembered that in the case under notice the authors were particularly fortunate in having to do with a region of the brain, injury of which is not followed by lesions that we can at present appreciate, and that if they had been dealing with the motor area they could not have adopted these measures with such complete immunity. Washing out the cavity seems to be in accordance with the generally approved principles of treatment, but we think that especial precautions should be taken to keep the head in such a position as to leave the opening at the most dependent point as far as possible.

Introduction and Extraction of Needles.—M. Desprès in a lecture which he delivered at La Charité (*Gazette Médicale*, May 17th), made some interesting observations. A young woman striking a table with the palm of her hand thrust a needle into the base of her middle finger, and this, striking against the first phalanx, broke and became fixed there. When seen two days afterwards the fragment of needle had completely disappeared amidst the inflamed tissues. On pressing at the base of the middle finger, however, a foreign body, pressure on which occasioned pain, could be felt. An incision was made at this point, and a fragment of needle, measuring 1½ centimetre, removed by the forceps. Here the incision was justified by the fact that the foreign body was firmly fixed. The subject of a second case was a young woman into whose breast a needle was driven obliquely by a blow, and entirely disappeared under the skin. Guided by the patient the presence of the needle could be ascertained; but in this case an incision for its removal would be improper, for the integuments of the breast are so mobile that an incision made in the skin would not correspond to the foreign body. The presence of the needle having been exactly determined, we should seize it in its length and make pressure on its two ends. At one of these we may perceive a slight cracking sound, and here the patient also feels a sharper pain than elsewhere, and this is the point of the needle. If we now press firmly upon the other end this point will be forced through the integument and can then be seized with a forceps. An incision should never be made except when the body is fixed in the tissues as in the first case. One caution must be borne in mind, and that is, we should never attempt an extraction on the mere statement of the patient that a needle is present in the tissues, and when we are unable to verify its presence; for sometimes persons declare that they have needles in their tissues when they have not; or when we are consulted the needle may have already migrated to another part of the body, this migration sometimes taking place very rapidly.

Fracture of the Fibula.—In a clinical lecture, delivered at the Pennsylvania Hospital, Dr. Levis, speaking of the diagnosis of fracture of the fibula, observed that this was chiefly derived from the great lateral mobility of the foot, and the outward displacement of the ankle and foot. Grasping the foot we elicit crepitus, and this with the pain produced by forcing the foot out, and its extreme range of lateral motion, determines the nature of the accident. But the diagnosis is more difficult when there is but slight displacement, and the patient is fat or muscular. One procedure, however, answers admirably, viz., feel for the head of the fibula, just near its junction at the tibia, in the neighbourhood of the annular ligament. At this point make decided pressure, tilting the distal end of the bone, and, if fracture be present, pain will be felt, not at the point at which pressure is made, but at the point of fracture. This fracture is peculiarly the fracture of the leg, consequent on falls from a height, especially when the foot is slightly everted.

"Further, where there is lack of co-ordination in walking, as with drunken men, fracture of the leg, if it take place, seems to select the lower end of the fibula as its favourite seat. Indeed, so commonly do we admit drunken men to this hospital suffering under this lesion, that I call it 'the drunken man's fracture.'" Dr. Levis cautions his hearers against the prevalent practice of supposing that when a splint is applied, the reduction of the fracture is thereby accomplished. Splints may be arranged according to the case and its circumstances, but the primary object should be the proper reduction or coaptation of the fragments. "The medical mind seems to be so associated with splints for fractures, that not enough care is bestowed upon this item of proper reduction. A pillow for the leg and foot to rest upon, and to make equable pressure, in order to retain the parts properly *in situ*, together with a fracture-box, will answer all purposes in ordinary simple cases."

Downward and Backward Dislocation of the Acromial End of the Clavicle.—Dr. Wescott, of Chicago, records the following rare case. "Mrs. K., aged 26, while going downstairs, made a false step and fell three steps, sinking against the baluster so as to drive the acromion process of the scapula *over* the end of the clavicle. I saw her 24 hours after the accident. There was little swelling and no pain, except upon motion of the arm; notable absence of the usual prominence of the clavicle at its outer half, but by burying my fingers deep in the neck I could outline the bone to its extremities as it passed beneath the acromion, and demonstrate the absence of fracture. I reduced the dislocation by placing my knee between the shoulders and drawing them forcibly backwards. Some difficulty was experienced in maintaining the reduction, but the patient recovered without impairment of function and with no visible deformity. Professor Andrews, in the 'International Encyclopædia of Surgery,' says that only five similar cases have been reported."—*New York Medical Record.*

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Monday, Oct. 20th, 1884.

Arthur Durham, F.R.C.S., President, in the Chair.

Corrosive Sublimate as a Surgical Dressing.

Sir Joseph Lister delivered an address on "Corrosive Sublimate as a Surgical Dressing," of which the following abstract summarises the chief points. The speaker began by adverting to his address at the opening of the last session, in which, according to some of his hearers, he had expressed himself in terms of overweening confidence. He little thought then that a year later he would have to tell of failures on his part, and yet such was the case. Within the past few months, several instances had occurred of results deviating from what he considered the normal type in aseptic wounds; in one instance a fatal result occurred from a form of spurious septicæmia, such as he had not seen for many a year. It was in the case of a lady, on whom he had operated for scirrhus of the breast and axillary glands. There was pus two days later, an unusual occurrence in his experience so early after operation. In the pre-antiseptic days, when sound tissues were operated upon and when primary union did not take place, three or four days usually elapsed, in children something less, and in warm weather less time than in cold. For pus to appear, therefore, so soon, and in some quantity, seemed to him to indicate, that an organism must have been present. After death, organisms were found in the abscesses, and in the pleural cavity. This was the only fatal case he had had, but other cases with delayed union and pus formation had occurred, undoubtedly of a septic character, that is to say, dependent upon the development of micro-organisms, although in none of the cases was there any offensive smell. These untoward results had made him reflect very carefully, for he had hitherto considered his mode of dressing absolutely free from danger. Mr. Cheyne's and Dr. Ogston's experiments had conclusively shown that the ordinary means he used were amply sufficient for the purpose of keeping wounds pure, and excluding micro-organisms. Latterly he had been using eucalyptus gauze; and owing to the great volatility of the eucalyptus oil, he had come to think that so much of it volatised during the manufacture and drying of the gauze as to lessen materially its protective power. Formerly he had used dammar gum as holding the oil more securely than ordinary resin, but dammar was very expensive. After some further trials with resin, he had felt justified in substituting the cheaper material, and for a while had seemed to get very satisfactory results; more recently, however, the results had proved far from satisfactory. He found further that the manufacturer had deviated from his instructions and had left the gauze exposed to the air for a longer period than formerly, and it was to be feared that much of the eucalyptus oil had evaporated away. He had little doubt that the untoward results he had just referred to were due to imperfections in the manufacture and quality of the gauze he had been using. Thus he had been led to a reconsideration of the subject, and to a fresh appreciation of the disadvantages of volatile substances. They doubtless had many advantages, but also very many disadvantages; thus, dressings became less and less antiseptic the longer they were worn, and they were also much at the mercy of the manufacturers. He had been accustomed to regard one week as the limit for a dressing to remain serviceable, but without definite grounds. On the whole, experience had shown that their results were under these circumstances satisfactory. Sir Joseph Lister then referred to some non-volatile substances—salicylic acid and iodoform—and pointed out their capabilities. He then referred to corrosive sublimate to which in late years especial attention had been drawn by Dr. Koch. He mentioned "the admirably conceived and the remarkably conclusive experiments" which Dr. Koch had conducted, and by means of which he had conclusively shown the remarkable "germicidal action" which the sublimate exerted on all forms of low organisms, including the bacillus anthracis, the spores of which were among the most resistant. He (Koch) had ascertained that a solution of sublimate, 1-20,000, was adequate to absolutely destroy the vitality of the spores of the bacillus anthracis. Koch had shown that other fluids were capable of arresting the growth of the spores so long as the spores remained in these fluids, but on withdrawing them and placing them in cultivation fluids, they subsequently developed. This "inhibitory" action was all that was required in antiseptics for wounds which were free from organisms, and the dressings required would have to be so designed as to prevent contamination from without of the discharges soaking into the dressings. Corrosive sublimate had already been extensively used as a surgical dressing in Germany, chiefly in the form of "wood-wool," that is pine wood reduced to shreds by suitable machinery, and impregnated with ½ per cent. of the sublimate. It was a very unwieldy form of dressing, on account of the bulk required. He had, therefore, turned his attention to the subject, with the view to the preparation of a more strongly impregnated dressing. He had used in one case

gauze containing 1 per cent. of sublimate; after the operation the wound was covered with a piece of protective, soaked in a 1-500 solution of sublimate; over this the gauze, and over this again an abundant eucalyptus dressing. On removing this, he found considerable vesication of the skin beneath the protective, and also on the arm where the perspiration had moistened the dressing. But the wound finally healed without the formation of any pus. This irritation of the skin, however, showed that the sublimate was a double-edged tool; and he had since turned about for a means to obviate the disagreeable effects. After carefully considered experiments, he found that corrosive sublimate formed with serum of the blood a compound which retained the antiseptic properties of the corrosive sublimate. Under such circumstances it was not an albuminate of mercury in a chemical sense, but an albuminate of the compound corrosive sublimate; and this was a matter of great interest to the surgeon; for it was not only innocuous as regards the skin, but thoroughly antiseptic in its properties. Thus the discharges from a wound in passing through a sublimate dressing became associated with, but not precipitated by, the contained sublimate; and the sublimate in this way was rendered very much milder in its action, and could, therefore, be applied in a more concentrated form. Sir Joseph found that with blood serum, 1 part in 70, or in 50, or in 30, it was perfectly amalgamated, and when dried gave off no deposit or crystalline separation whatever; it was free from smell, and applied to the skin was quite unirritating. The question of course had occurred to him how far this new compound could be relied upon as an antiseptic. He detailed a number of experiments testing its antiseptic powers, and comparing it with other well known antiseptics, and he had found it thoroughly trustworthy and quite equal to freshly-prepared carbolic gauze. French charpie, made of old rags, might be saturated with the solution, and would then form a very efficient and cheap dressing. If serum were treated with a certain proportion of sublimate, not sufficient to make it solid, it could be kept for an indefinite time. Perhaps one day sublimated serum might come to be an article of commerce, to be used in hospital and private practice. Perhaps even, dried and powdered, it might come to be mixed with vaseline, and used as an ointment, or be scattered over wounds as iodoform powder was used at the present time.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, OCT. 9TH, 1884.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Prevention of Blindness.

THE SECRETARY read a letter which had been received, stating the steps which the Local Government Board for Ireland had taken in response to the resolution passed by the Society on June 5th, 1884, and transmitted to him. A circular letter, calling attention to the subject, had been addressed by the Secretary of the Local Government Board for Ireland to the medical officer of each dispensary district, to the midwives of each district, and to the clerk of each union.

Central Choroiditis with Good Vision.

Mr. NETTLESHIP showed a drawing of the case. The choroid over the whole of the yellow-spot region was superficially atrophied, and to a great extent covered by large densely black patches of pigment. The retinal vessels were normal, and the optic disc healthy. There were a few detached patches of pigment beyond the yellow-spot region. Vision was $\frac{20}{20}$ fairly, and 1 J. No scotoma could be made out, but the visual field was defective at the periphery. The appearances were those of superficial choroiditis, with great proliferation of the pigment-epithelium, and infiltration of some of the pigment into the retina. Such changes, involving the fossa centralis, would seem to be incompatible with such good vision as the eye preserved. Two alternative explanations were suggested: either that a slightly eccentric fixation had been acquired, or that the choroiditis had in reality occurred in the deepest larger layers of the choroid. But the fact that the pigment-masses lay in front of the large choroidal vessels militated against the latter view.

Mr. WAREN TAY asked if any cause could be assigned.

The PRESIDENT noticed the remarkable extent and severity of the disease involving the yellow spot with excellent vision.

Dr. ANGEL MONEY mentioned a case of disease at the yellow-spot region with good vision, which had been under the care of Mr. Tweedy.

Mr. NETTLESHIP thought the changes were most probably due to hæmorrhages, and he referred to another case, which had been under Mr. Hutchinson's care at Moorfields, where vision was also remarkably good.

Pseudoglioma: Death from Meningitis.

Mr. NETTLESHIP said that, in a previous paper, attention had been drawn to the frequency with which attacks of destructive ophthalmitis, simulating glioma, coincided with some general illness, often presenting pyæmic symptoms. The patient, a girl aged two years and a half, died of cerebro-spinal meningitis, secondary to purulent otitis. The disease of the eye, which was purulent irido-cyclitis, with suppuration of the vitreous, was most probably pyæmic, as was also the meningitis. The case threw some light on the rare cases in which meningitis occurred after excision of an acutely inflamed eyeball; both occurrences might be set down as local pyæmia, or spreading phlebitis. If, however, pseudoglioma in children were really the result of a pyæmic process, it was necessary to assume that children recovered from pyæmia with considerable frequency. The previous history of the patient in this case was negative. She was taken ill on March 2nd, shivered, vomited, and had some diarrhœa. The eye was noticed to be inflamed on March 3rd, and she was brought to the hospital on March 5th; when purulent inflammation of the left cornea was noted, and a mass of semi-transparent lymph blocking the pupil, and lying in flocculi in the anterior chamber. On the following day, the temperature ranged between 102·2° and 103·6°, and there was a small firm swelling over the head of the right fibula. Next day, both knees were slightly swollen and tender; the lymph was disappearing from the pupil and the anterior chamber of the left eye; there was marked papillitis of the right eye. The left eye subsequently shrank rapidly, and the patient died of exhaustion six weeks after admission. The necropsy revealed no important lesions, except in the brain and spinal cord. The crura cerebri, optic tracts, and chiasma, the pons, and fore part of the cerebellum, were covered with thick yellowish-white lymph; the roof of the middle ear on the right side was yellowish and softened, the membrana tympani was softened and partially detached, and the middle ear and mastoid cells contained much thick pus. The whole posterior half of the cord, from the upper dorsal region downwards, was covered with yellowish lymph.

The PRESIDENT asked if there was no proof of phlebitis; he had not gathered whether the history of ear disease was definite.

Dr. SKINNER asked if there had been any affection of the semi-circular canals.

Dr. ANDERSON referred to the frequent occurrence of cerebral abscess in ear-disease without any discoverable tract between the two points.

Mr. NETTLESHIP, in reply, said that the disease was very marked in the right ear; there was some thick yellowish muco-pus in the left ear, as to which he would not like to express a positive opinion.

Amblyopia and Nervous Depression from the Vapour of Bisulphide of Carbon and Chloride of Sulphur.

Mr. NETTLESHIP said that he had recently met with a case of amblyopia in a young man, aged 20, who had been engaged in the "curing-house" for about nine or ten months. After about three or four months of the work his health began to fail; he felt great weakness in all his limbs, and a liability to nausea; for some weeks before admission he had severe headache, and about three weeks before admission his sight became, apparently suddenly, so bad that he could not see people on the pavement; vision grew worse, and when admitted vision was $\frac{5}{70}$ with each eye, and 12 J. He stated that he saw worst in bright daylight; the fields of vision were not curtailed. After admission, improvement commenced, and on the nineteenth day vision was $\frac{20}{20}$ on the right, and $\frac{10}{70}$ on the left; the optic discs were pale, and there was a filmy haze over them; the neighbouring retina showed the "watered silk" appearance. He returned to work in the india-rubber works, but not in the curing-house, on leaving the hospital on August 25th. On October 6th sight was a good deal improved (vision was $\frac{20}{50}$ and 6 J); there was a large and ill-defined scotoma for red, a little to the outer side of the centre of each field; the scotomata were quite symmetrical. The optic discs were paler and clearer. He was well and strong, and more cheerful. In the manufacture of certain kinds of india-rubber, the material was "cured," vulcanised, by being passed through a bath consisting of bisulphide of carbon (thirty-two parts) and chloride of sulphur (one part); a strong vapour arose during the process, and the work was believed, by the men, to be unhealthy. Dr. Ernest Fuchs, Professor of Ophthalmology, in the University of Liege, who had happened to see the above case, had communicated to Mr. Nettleship the notes of a similar case. The patient was a young girl, aged 23; she was pale, thin, and weak; the muscles of the thenar eminence, and the interossei muscles were atrophied; sight was very imperfect; right vision was $\frac{2}{60}$, left $\frac{4}{60}$; there was slight neuritis of each eye; the optic discs were pale and hazy, but not swollen. The patient stated that since she began working with the bisulphide of carbon bath she had suffered from weakness of the limbs, coldness, formication, headache, giddiness, and loss of appetite. She was admitted into the hospital, and slowly improved under treatment with strychnine administered hypodermically. About eight weeks after admission, it was noted that there was a small well-defined central scotoma for red in each eye. Sixteen weeks after admission sight had much improved, vision was $\frac{5}{18}$. About seven months after admission, the scotoma had disappeared, and right vision was $\frac{5}{12}$, left $\frac{5}{9}$. Eight months and a half after admission, the optic discs were paler than normal, but sharply defined; the atrophy of the interossei and thumb-muscles had disappeared; vision had improved; right vision $\frac{5}{9}$, left $\frac{5}{6}$. Mr. Nettleship also referred to a similar case which had been recorded by Dr. Alexander Bruce. In this case the man lost his sight rapidly after an unusually prolonged exposure to the fumes, but there had been previously, for some months, great nervous and muscular weakness; there were no ophthalmoscopic changes, and the patient entirely recovered in about four months. Dr. Bruce had also recorded two other cases of poisoning by bisulphide of carbon, in which the same weakness and depression were noticed, but not amblyopia. The cases were of great interest in Mr. Nettleship's opinion, as illustrating in a new way the peculiar liability of the optic nerves, as compared with other nerves of special sense, to be damaged by influences which depressed the whole nervous system.

The PRESIDENT asked whether any enquiry had been made of the masters to ascertain whether they were aware of the injurious nature of the process of "curing" with bisulphide of carbon and chloride of sulphur, or as to the numbers engaged and the number who suffered.

Mr. NETTLESHIP said that there were only two men in the curing room, the other man was older and was fairly healthy. Only certain kinds of rubber were thus vulcanised, the best sorts of black india-rubber tubing.

Messrs. Nettleship, Gunn, and Adams Frost were requested to act as a committee to make an investigation into the question.

Remarks on three recent cases of Detachment of the Retina.

Dr. W. A. BRAILEY read a paper on the treatment of recent detachment of the retina founded on three cases. The first patient was a man, aged 43. The eye was previously normal, judging from the history and from the condition of its fellow. A complete detachment of the retina had apparently occurred fourteen days earlier, during a severe fit of coughing. Gradually perception of light returned, till, on admission, he could count fingers at a foot. When he presented himself six days later for treatment by scleral puncture, vision was $\frac{6}{24}$, and the field very much larger than before. Indeed, no detachment was now to be made out, but there were large opacities in the vitreous, especially near the seat of detachment. This improvement was maintained when last seen (three months later). The second case was a boy, aged 12. The retina was detached at its upper and outer part, probably after a blow from a stone three months earlier. The lower and inner part of the field was wanting, the defect passing the horizontal line above and the vertical meridian below. It just embraced the fixation-point. The retina so far reapplied itself after treatment by scleral puncture, rest, atropine, and jaborandi, that, except for some little peripheral limitation, corresponding to the seat of the previous detachment, the only absolutely blind part was a band or track extending directly inwards to the fixation-point, which it involved. This band corresponded to the lower edge of the detachment as first seen ophthalmoscopically; but that edge of the retina lay, when the patient was last seen, in a flat fold. Two weeks later the improvement was still maintained. The third case was that of a man, aged 40. The defect first appeared six months before admission, when he was suffering from a violent cough. It gradually increased till September 25th, when he was sent to Guy's Hospital, by Dr. Reynolds, of High Wycombe. Then the inner half of the field was wanting, the defect extending beyond the fixation-point and vertical meridian above, but not quite so far below. He was able only to count fingers at 3 feet. After scleral puncture, atropine, jaborandi, and eight days in bed, the field was conspicuously enlarged, the fixation-point being now free. Vision was $\frac{6}{60}$; nor could any detachment be made out any longer; but there were numerous floating opacities in the vitreous, especially near the seat of the detachment. Dr. Brailey remarked that since in at least two out of the three cases, the eye had been presumably normal, the detachment would appear to have occurred in association with a healthy vitreous. He found it impossible to understand how either a blow or any violent pressure on the globe could cause a detachment under such circumstances without rupture of the retina, of which he had not been able to find indications in these cases. The rupture would, he thought, be more reasonably attributed to the recoil of the tunics than to the original pressure. The value of the treatment was demonstrated in the third case, where the affection was progressing up to the time of operation. Though valuing puncture, rest, and atropine, he was not convinced as to jaborandi. He thought, in face of these two cases, that a simple puncture, if large enough, was quite as effective as any more complicated process; and, indeed, that it excelled the latter in rendering anæsthesia unnecessary. A bent iridectomy-knife, 5 millimètres wide, seemed to him to be the most effective instrument.

Mr. NETTLESHIP referred to a case of a man, the subject of myopia, in whom a retinal detachment occurred very rapidly. In this case he tapped, and made the patient lie on his back. Great improvement followed, and the operation was repeated with further improvement, but two months later he came back as bad as ever, and the other eye had become similarly diseased. He had tapped about a dozen eyes, but this was the only one in which any even temporary improvement occurred.

Dr. BRAILEY said that two of his patients were not myopic, the third had mixed astigmatism.

Night-blindness.

Mr. W. ADAMS FROST read notes of two cases of night-blindness. The first was that of a painter, aged 34, who had had six attacks of night-blindness, each coming on

whilst he was painting white houses in the spring, the weather, except on two occasions, being very bright. Each attack lasted about a fortnight, and disappeared under treatment by rest, tonics, and the use of eserine. Vision during the attacks was $\frac{2}{3}\frac{1}{0}$, and the visual field was normal. The patient was somewhat anæmic, but there was no history of any illness. He was in receipt of good wages, and had not been underfed. He had never had any symptoms of lead-poisoning, nor had he ever been out of England. The second was that of a lamplighter, aged 19, who for six weeks had been engaged in painting the lamp-posts on country roads in excessively bright weather. After three weeks painting, he suffered severely from pain and lacrimation. Three weeks later, he suddenly found that he could not see one evening, and this inability to see in a dull light continued until his visit to the hospital two weeks later. His vision then, in ordinary daylight, was normal ($\frac{2}{2}\frac{0}{0}$ and 1 J), visual field normal. He presented no signs, and had had no symptoms of lead-poisoning. He was treated with tonics and instillation of eserine, and recovered in about five weeks. A month later he had a relapse, from which he recovered in about a fortnight. Since the previous attack he had been following his ordinary occupation of lamp-lighting.

Mr. W. H. Jessop asked Mr. Frost whether he had noticed any patches on the conjunctiva in his cases, and said that, in three cases coming under his own notice lately suffering from night-blindness, they were present in both eyes, looking like small bubbles of air, and easily scraped off. On these dry patches were numerous bacilli of uniform size; these facts had been noted by Snell and others. Two of the cases were under Mr. Nettleship's care at Moorfields, and the third was under Mr. Jessop's care at the Paddington Green Children's Hospital. Two were children underfed, one nearly starved, and the third case was an adult man, suffering from albuminuria. Artificial cultications from two cases showed the same characteristics, especially as to slowness of growth. In the three cases, the dry patches disappeared at the same time as the night-blindness.

Mr. Frost replied that there had been no patches in his cases. He asked whether the night-blindness was functional in Mr. Jessop's cases, or whether there were other changes.

Action of Hydrochlorate of Cocaine on the Eye.

Mr. Arthur Benson (Dublin) contributed some observations on the action of hydrochlorate of cocaine on the eye. He had experimented with a 2 per cent. and a 4 per cent. solution on himself and about twenty-five others, and found that anæsthesia of the cornea and conjunctiva was produced by a drop instilled into the conjunctival sac; that this anæsthesia came on almost immediately after application, and lasted only about five or six minutes, when it gradually but rapidly faded away. So far as his experience went, the drug was of no appreciable assistance in operations, the anæsthesia being too imperfect. In most cases, it produced slight paresis of accommodation, with partial dilatation of the pupil for about half an hour, followed by contraction of the pupil and spasm of accommodation, which again gave way to the normal condition of parts in about one and a half or two hours. He had extracted cataract, done iridectomy and some minor operations with its aid, but found no appreciable benefit except in the most trivial cases. The anæsthesia was very transitory, and it was therefore necessary, in order to obtain the best results, to use the drug very shortly before operating.

Mr. Marcus Gunn had used hydrochlorate of cocaine in three cases, scraping the cornea, tattooing, and needling, and had come to the same conclusions as Mr. Benson.

Mr. Nettleship had tried it in two cases; it had produced marked anæsthesia without any inconvenience, and he suggested that, if the drops were frequently instilled so as to maintain the effect, the drug might be practically useful.

Living Specimens.

Dr. W. A. Brailey: 1. Detachment of retina of left eye; decided benefit after scleral puncture. 2. Optic neuritis with increased tension (relieved by eserine), associated with numbness of the face and recent severe pains in the head; some loss of power of the left side, and slight albuminuria. Vision was deteriorating.

Card Cases.

Mr. Nettleship: Drawing of new formation of pigment on the front of the iris.

Mr. Marcus Gunn: Peculiarly shaped eyeball. Vision was myopic (− 4 D), while the inner part of the fundus was hypermetropic (+ 3 D).

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, October 21st, 1884.

George Lawson, F.R.C.S., Vice-President, in the Chair.

Abscess of the Liver.

Dr. F. C. Turner brought forward a case of tropical and multiple abscesses of the liver. The patient was a seaman, aged 34, who had been suffering for some time from diarrhœa, with slimy motions, and had an abscess in his liver tapped when at Aden, five ounces of pus being removed with great relief. There was, however, a return of the dysenteric symptoms, and when he came under observation his motions were loose, slimy, and contained blood; the liver was enlarged but not tender, he was much wasted. He died in the course of a couple of days, and at the *post-mortem* there was found extensive disease of the mucous membrane of the colon with sloughing of the walls in places, and perforation with escape of the intestinal contents into the peritonæum. The mucous membrane of the lower portion of the ileum was likewise necrotic. At the anterior part of the right lobe of the liver was a large abscess, and a smaller one in the middle of the left lobe. These had each a thick fibrous capsule, and their lining membrane was smooth; there were firm adhesions to the diaphragm. On the surface of the right lobe were numerous small abscesses. The lungs were adherent to the diaphragm. The kidneys were enlarged and one contained an abscess. The points he specially noted about the case were the limitation of the multiple abscesses to the right lobe which he considered to result from some condition unfavourable to its nutrition, and that he attributed to the impediment to its blood supply, by the projection of the large abscess against the hepatic artery, displacing its cystic branch. Local conditions he believed were of the chief importance in determining these abscesses. The infective intestinal condition played an essential part. He thought that their formation might be due in part to traumatic causes, rupture of the liver being possibly produced.

Dr. Carrington also brought forward a case of hepatic abscess. The patient was a Portuguese, aged 22, who had rigors, fever, wasting, and a swelling under the right ribs, with more or less pleurisy. An incision into the swelling let out some two or three pints of pus of that grumous character peculiar to abscess of the liver. The man did not improve much and ultimately died. The liver was found to be much enlarged, containing two large abscess cavities, one of which had been opened and was much contracted, containing about a fourth of a pint of pus; the other, unopened, held a like quantity. Besides these, the substance of the liver was riddled with small abscesses, some in an early stage, not softened. The walls of the large abscesses were very thick and they were evidently of old date. The right pleura was adherent to the diaphragm. There was dysenteric ulceration of the large bowel. The concurrence of large with multiple abscesses was rare. If the large abscess was due to absorption form the intestine, why was there such a difference between it and the small abscesses? If the small abscesses were pyæmic what was the source of the poison? They occurred in every part of the liver, but there was no disease of the portal system or of the hepatic artery, was it possible that the lymphatic system was the cause of it?

Dr. Ewart had recently had two patients under observation, one of whom recovered after a single aspiration, the other, whose pleura was aspirated several times, died after

a relapse of his dysentery, and a large abscess which had burst into the pleura was found, as also numerous small abscesses, many partially softened. The colon contained many ulcers of pale, sodden, waxy, necrotic aspect, very like that of the small abscesses. He thought there was some direct connection between the lesions of the intestine and the small abscesses in the liver by means of the portal vessels.

Dr. CURNOW said, that since he had been connected with the Seamen's Hospital, there had been no case of abscess of the liver in which there was not dysentery at the time or shortly before. He believed that all tropical abscesses were of this nature, and asked if *post-mortem* examinations had been made in the cases where dysentery was said not to have been present. The cases shown confirmed that opinion and supported the doctrines of Budd in opposition to those of Murchison.

Dr. WILKS observed that the opposite view was held very strongly by those of Indian experience, notably by Sir Joseph Fayrer. His own experience had always found the two co-existent: the converse, however, did not hold, ulceration of the intestine was often found without hepatic abscess. Perhaps some other element was essential, and that might be climate.

Hæmophilia.

Dr. WICKHAM LEGG had recently had a fatal case of this disease in a boy, aged 13, who died of epistaxis; he had swellings of his joints and bruised very readily. His brother had died of bleeding. Dr. Klein had examined the vessels and tissues, and had found nothing. This made a total of six cases in which the examination had been made; in four no lesions could be discovered, in one there was also lichen ruber and icthyosis, so that, being so complicated, it had better not be counted, and Dr. Percy Kidd's case was the only one in which any lesions in the vessels had been found. The joints were also examined, this being only the fourth case in which that had been done. The changes in the joints appeared to occur in the following order. In the first stage there was extravasation of blood only; in the second the synovial membrane was coloured rusty, and the cartilages were slightly eroded; in the third the synovial membrane was of a deep red and the cartilages were deeply eroded and destroyed.

Dr. THEODORE ACLAND had also recently examined the body of a boy who died from hæmophilia. He had had a lacerated wound of the tongue, the bleeding from which could not be stopped; he had been liable to petechiæ and bruises, and his brothers were bleeders, the sisters, three in number, being healthy. The maternal grandfather of the patient's father was known to have been a bleeder. The blood examined after death was pale and watery, and showed an increase of white corpuscles. The vessels were perfectly normal. The parotid and submaxillary glands showed an increase of deeply staining nuclei in their substance, and some blood was found in the museles of the tongue. In the thymus were seen spheroidal masses a, good deal larger than the striated corpuscles of Hassell, bounded by flattened elongated cells containing epithelioid cells surrounded by the lymphoid cells of the gland; the gland itself was enlarged. He could offer no explanation as to the significance of these bodies, perhaps they represented a stage in the evolution of the corpuscles of Hassell. He had only found them in one other case out of a considerable number. That was a case of pelvic abscess, but the patient had previously had purpura.

Purpura.

Dr. WICKHAM LEGG detailed a fatal case. The patient was a man, aged 36, who had had syphilis two years previously; he had been intemperate formerly. For the last six months of his life he had been ill-fed, and had eaten very few vegetables. A purpuric eruption came out, and one month before his death it became very abundant; he also had vomiting and diarrhœa. When he came to the hospital, there was well-marked purpura and joint swellings. He got better, but then had a recrudescence of his purpura, the spots coming out at first like urticaria, hæmorrhages later taking place into the wheals; they spread all over the body from one elbow in a very short space of time. At the *post-mortem* the intestine, from within a few feet of the jejunum, was ulcerated throughout. This however was not uncommon in purpura. The skin, on microscopical examination, showed a large amount of corpuscles in all its layers, especially in the lower layers of the epidermis, and around the sweat glands and hair follicles. There were also masses of them corresponding to small extravasations. In the papillæ and under the epidermis the vessels were in many cases dilated. The arteries of the subcutaneous tissues were much thickened. In the intestines there were hæmorrhages into the villi, just as into the skin. As to diagnosis, against scurvy there was the absence of spongy gums; and the fact that though put upon lemon juice and fresh vegetables he did not improve. Against alcoholism was the fact that the liver was healthy. In favour of rheumatism it might be said that there was swelling of the joints, though *post-mortem* no disease was found in them; and the hæmorrhages had been associated with urticaria, though the case could not be said to have been one of purpura urticans. Against the idea of rheumatism was the fact of the disease of the vessels, which was in favour of syphilis being the cause of the disease, the view at which he had arrived. Ever since 1881 he had been examining the blood of patients with purpura for micro-organisms, but had only found them on three occasions; there were none in the case shown that evening, either in the blood or in the skin after death.

Dr. BUZZARD was clear that this was not a case of scurvy. He had never seen such an eruption in connection with syphilis, but had had a very similar case where the eruption was due to alcohol.

Mr. HORSLEY, referring to Dr. Acland's cases, confirmed the opinion that the peculiar bodies in the thymus were associated with endarteritis; every variety of size could be seen. He believed that the appearances were due to a degenerative proliferation of the endothelium carried so far that the original cells lost their outline. There was some resemblance with psammoma.

Dr. O'CONNOR asked if there had been any local peculiarity about the joints, and made some further remarks on the cases.

Dr. PERCY KIDD regretted that no changes had been found in the vessels; in the case which he had examined there had been distinct changes in the veins and capillaries in remote parts. He thought that changes in the vessels would explain the presence of the smaller bodies in Dr. Acland's case, but not the larger ones.

Tabes Dorsalis, with Perforating Ulcer of the Foot.

Mr. PEPPER and Dr. SILCOCK showed the foot and specimens of the nerve centres from this case. The patient was a woman, aged 60, who denied syphilis or alcoholism. She had suffered from numbness of the toes of the right foot for two years, and this was followed by the formation of a painful corn on the sole of the right foot, which she picked off, causing it to bleed, and her foot did not heal up afterwards. There was no ataxy, the patella reflex was absent, the muscles were flabby, and there was partial ptosis. Her foot was acutely inflamed, and after temporary improvement it was amputated. Four days later the flaps sloughed, and from then matters went badly; bedsores formed, and black sloughs even where there was no pressure, the internal saphenous veins became plugged, and she died. The lower end of the fibula was found to be eroded and carious, and the tibia also to a less extent. The vessels of the brain were atheromatous, and the posterior root zones of the cord showed grey degeneration to the naked eye. Microscopically the cord was altered in its whole length all round the grey matter, this being involved in places. The posterior columns of the white matter were most affected. Numerous ragged cavities were found, both in the white and grey matter, containing a homogeneous hyaline material, and were evidently the result of recent inflammatory softening. The blood vessels were notably thickened, there were hardly any healthy nerve fibres in the posterior root zones. The anterior and posterior roots were abnormal, the myelin being broken up into masses with dark irregular margins, the nuclei of the nerve fibres were increased; the changes were more marked in the posterior than the anterior roots. The anterior and posterior tibial

nerves were in a more advanced state of disease and contained hardly any healthy nerve fibres. The internal popliteal showed similar changes, but less marked and more recent. They did not know of any case having been recorded where the changes were so extensive and so recent. He thought the disease of the cord was the primary thing, then came the injury to the foot, and the tissues having little recuperative power the ulcer was formed. The late changes were due to the acute degeneration of the posterior nerve roots.

Dr. WILKS objected to the use of the word tabes for this disease, it was a word that was much too commonly used.

Dr. BUZZARD asked whether the peripheral nerves had been traced in their whole length. Some French observers had found an intervening healthy portion between disease of the cord and disease of the peripheral nerves. These cases suggested the possibility that thickened arteries had a good deal to do with the commencement of changes in the peripheral nerves.

Alcoholic Paralysis.

Dr. W. B. HADDEN showed specimens from two cases. The first was a woman, aged 33, who had been a heavy drinker. She had had loss of memory for three months, and ten days before her death came for loss of power in legs and œdema. She had retention of urine, and was noisy and delirious. There was no power in her legs, but no tremor, the reflexes were absent, and the muscles of the legs did not respond to the electrical current. The liver was enlarged. At the *post-mortem*, generalised tuberculosis was found, and ulceration of the intestine. The medulla and brain were normal, also the spinal cord. The second patient was aged 42; her father had died of diabetes. She had suffered from delirium tremens; she could not walk alone. There was no loss of power over bladder or rectum. Her limbs were cold, the arms wasted; there was drop wrist, the extensors being more affected than the flexors; the interossei were affected. The reflexes were absent, the muscular sense was normal, there was no anæsthesia of the trunk. The legs were emaciated, drawn up, and she could not bear to have them touched. At the *post-mortem* examination there was some atheroma of the aorta and a little broncho-pneumonia. The liver was cirrhotic, the brain healthy, and the cord, on microscopical examination, was also healthy. The sciatic nerve showed the tubes much reduced in size, and the medullary sheath and axis cylinders reduced also; there was no segmentation of the myelin. There was some thickening around the nerve tubes. The right gastrocnemius showed absorption of the muscular fibres with interstitial fat in considerable amount. Thus in both cases the cord was healthy, confirming the view that the disease was one of the peripheral nerves. In another case he had found atrophy of the hypo-glossal nerve. The association of cirrhosis of the liver and general tuberculosis was found to be common in these cases.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 8TH, 1884.

H. GERVIS, M.D., F.R.C.P., President, in the Chair.

THE following were the specimens shown:—

(1) Two cysts of the broad ligament filled with tarry fluid removed by abdominal section—Dr. MALINS.

(2) The ovaries and tubes removed from a case of pyo-salpinx by operation—Dr. MALINS.

(3) Tumour of the upper part of the vulva, removed by ecraseur—Dr. POTTER.

(4) Pelvis from a case of mollities ossium—Mr. GRIFFITH.

(5) Cyst of the uterus—Mr. GRIFFITH.

(6) Ovarian tumour—Dr. W. DUNCAN.

(7) Neugebauer's intra-uterine glass tube—Dr. BARNES.

(8) Glass female catheter—Dr. BARNES.

On Post-partum avulsion of the uterus, with a case followed by recovery.

A paper with this title was contributed by Mr. J. HOPKINS WALTERS. In April, 1882, Mr. WALTERS was called by Mr. COCHRAN, of Caversham, to a patient, aged 22, in her third confinement. She had been attended by a midwife, who, after the birth of the child, finding the placenta did not come away, pulled at the cord, which broke at its attachment. She then introduced her hand and tore away the whole of the uterus with the right ovary and fallopian tube, portions of the round ligaments, left fallopian tube and ligament of the left ovary attached to it. Mr. Walters saw the patient 21 hours after the accident, and found her under the influence of opium, and somewhat recovered from severe collapse. A large quantity of omentum protruded from the vulva, and in the upper part of the vagina was an enormous rent. Mr. Walters ligatured and cut away the omentum, which was cold and badly bruised at the level of the vulva; the parts were washed with solution of permanganate of potash, and a pad of salicylated wool applied. The opiate was continued; catheterisation ordered every eight hours, and the diet limited to milk and beef tea. The patient did well until the fifth day, when she was seized with shivering, her temperature fell to 97·4°, and pulse rose to 170. Mr. Walters irrigated the vagina with solution of permanganate of potash, and finding that the vaginal fundus had well closed round the omental stump, afterwards used a solution of carbolic acid, quinine in large and frequent doses was combined with the opiates and the vagina syringed every eight hours. On the 28th day the patient was able to drive five miles to the Royal Berkshire Hospital, where she remained under Mr. Walters' care until the beginning of July, when the omental stump had frittered away, and the vaginal wound was perfectly cicatrised. At the present time, two-and-a-half years after the mutilation, the patient is in perfect health and attending as usual to her ordinary occupations. After a diligent search Mr. Walters has found reports of 36 cases of accidental removal of the puerperal uterus, of which 14 recovered. Of all these only 3 were without doubt unattended by previous inversion of the uterus. Having regard to the medico-legal aspect of these cases, Mr. Walters draws an important distinction between the accidental removal of the previously inverted uterus, and of the uterus that has not undergone inversion, on account of the possibility of uterine separation through spontaneous rupture. According to present experience inversion of the uterus is not found to co-exist with rupture either of that organ or of the vagina; and where it is shown that the uterus was inverted before being torn away, it becomes tolerably easy to estimate the degree of criminal responsibility attaching to the attendant. On the other hand, where it can be proved that the uterus was never inverted, it is impossible to assert that the separation of the uterus was wholly due to violence and not contributed to by a spontaneous rupture through the uterine or vaginal walls. Mr. Walters quotes cases and authorities to prove the occasional insidious occurrence of uterine rupture, the suspension of symptoms, and the completion of child-birth in spite of it, in some cases independently of manual interference and without any disproportion between the maternal passages and the child; and concludes that in giving evidence in such cases these facts should be most carefully remembered.

Case of Rupture of the Uterus.

A case of this accident was contributed by Dr. HORROCKS. M.B., aged 34, was in her ninth pregnancy, at the eighth, fifteen months ago, twins were born. In her ninth pregnancy labour came on at full term, and nothing abnormal was noticed when she was first examined; the os was dilated and the membranes bulged through it; presentation vertex. Two or three severe pains came on following one another very quickly, and the vertex appeared at the vulva covered by the unruptured membranes. These were immediately ruptured, and the child (alive) was driven entirely outside the vulva by the powerful parturient action which had at the same time caused a rupture of the uterus running nearly longitudinally but inclining obliquely downwards to the left, and involving part of the body, the whole of the cervix, and a portion of the upper part of the vagina. There was not any external hæmorrhage, and the patient seemed all right for about ten minutes when she became faint and collapsed, vomiting some dark brownish fluid. The placenta was expelled by the uterus after injecting hot water into

the vagina. The author arrived soon after this and found the rent already described. The patient died before anything could be done. There were only a few clots in the pelvis, death having resulted from shock.

The PRESIDENT remarked on the value of Mr. Walters' paper both from the forensic and obstetric point of view. He did not quite gather in what way the projecting omentum had disappeared, and he would also like to ask Mr. Walters whether examination had detected any undue softening of the uterine tissues.

Dr. AVELING asked if any penal action had been taken against the midwife. He thought the case another strong proof of the necessity of passing a Bill to ameliorate the present ignorant and dangerous class of midwives.

Dr. BRAXTON HICKS thought that in Mr. Walters' case there was already a rent of the junction of the uterus and vagina, and that the midwife had passed her hand through the rent in mistake for the flabby os uteri, had pulled down the omentum in mistake for the placenta (an error he had seen before), and then the uterus. Rupture of the uterus and vagina is produced by the contractions of the uterus, and bearing down pains are not essential. When an obstacle occurs to the head of the fœtus after its escape from the os, the uterine force is expended on the uterus and upper part of the vagina as a kind of recoil. When a laceration has once begun, but little force is needed to extend it, and when the fœtus is placed nearly symmetrically, the vagina may be torn all round. The broad ligaments are not capable of resisting much force, nor are the round ligaments. A very slight force will free the uterus after the severance of the vagina. In the case of Popperwell's, alluded to in the paper, he was assured privately that no force had been used. He did not think that in simple removal of the placenta from a sound uterus and vagina it would be possible to tear the uterus away. After the uterus has been torn away from the vagina, and most of its attachments, bearing down might conceivably complete its detachment and expulsion.

Dr. CHAMPNEYS said that the uninverted uterus might conceivably be torn away by inserting one or more fingers through the cervix, retroverting the fundus, hooking the fingers backwards, and pulling.

Dr. BARNES confirmed the view taken by Dr. Hicks, that the uterus had the power, by virtue of its *vis in situ*, of contracting and pulling on the vagina and broad ligaments, even apart from any central nervous supply, for a short time at least. Expression of the placenta (practised by the midwife in Mr. Walters' case) requires caution, and may produce inversion. The proper way is to use both hands, and press the anterior wall against the posterior.

Dr. HERMAN said that in any future case of the kind in which evidence on the subject might be required in a law court, all available facts would be found in Mr. Walters' paper, which had shown that in certain conditions avulsion of the uterus is effected with great ease, and had been frequently effected by qualified men. Remembering the rarity of these cases, and the sudden emergency which arises, a medical man should not be hastily condemned as a criminal, and still less a midwife.

The PRESIDENT said that while avoiding hasty condemnation in any individual case, in the absence of a knowledge of all the facts, he could not but regard the avulsion of a whole uterus, inverted or not, as a very grave and responsible proceeding.

Dr. GRIFFITH referred to a case in which a fibroid had been mistaken for the placenta; post partum hæmorrhage had induced the practitioner to use some force, which might have inverted the uterus.

Dr. BRUNTON thought that the removal of an inverted uterus was, in his opinion, the sign of incompetence, or even criminality, seeing that the absence of inversion can be easily proved by abdominal palpation of the parturient uterus.

Dr. BARNES replied that the uterus might be, by natural efforts, or aided by slight and not culpable manipulations, entirely detached. Casper mentions a case in which the broad ligaments even were torn through by spontaneous force. When the uterus was lying loose, the hand, introduced to remove the placenta, might easily bring it away, and the practitioner be blameless. Those of largest experience would judge most mercifully.

Mr. WALTERS, in reply, said that the omentum, after becoming highly vascular, slowly disintegrated by molecular death, and disappeared. He did not receive the uterus until many days had elapsed, and consequently no microscopical examination of its fibres was made. It looked however, perfectly healthy and of quite average thickness throughout its walls. No penal action was taken against the midwife, and he was thankful this was so, as, although he still believed great violence was used, he should have given much stronger and positive evidence against the woman than subsequent study of the histories of these cases would have justified. Comment had been made on the various ways in which, during operative procedure, the uterus might be detached from its connections, but one mode had not been mentioned, viz., in the attempted introduction of the hand within the uterus either for turning or to remove retained secundines, the organ might be forced up and the tissues of the cervix or vagina, if friable, torn through. He would feel greatly obliged if Fellows would bring to his notice any account of similar cases not included in his paper.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

SIR,—In the history of mankind each age has presented problems for solution peculiarly its own. Amongst several to which answers are sternly demanded at the present time are—(1) Is there really any "over-pressure" in our elementary schools? (2) If so, does this over-pressure result in any *permanent* injury to the juvenile portion of the community? To ask questions is always easy, to answer them often difficult, and the solution to the above queries is surrounded by difficulties of no ordinary kind. All children of a certain age, and over it, now go to school, and in such a number there must of necessity be some that are constantly ill or ailing; so that we must be carefully on our guard as to how we connect school and illness as cause and effect. Idle children too dislike school, and are only too ready to complain if by so doing they can get out of going there. Again, a large number of the poor are *always below par* from underfeeding and exposure; and their inability to withstand slight attacks of illness, which in their cases rapidly take on severe forms, may easily be placed to the account of "School Board pressure." After making full allowance for all this, however, I think there can be little doubt in the mind of any physician constantly engaged in the treatment of children's diseases amongst the poor, that the existing system of education, at any rate as regards the health of many children, is an exceedingly unsatisfactory one. My own experience goes to convince me that in a large number of instances, so-called "nervous" diseases are traceable to over-pressure at school. Under this head I would particularly mention chorea in almost every grade of mildness or severity, and a peculiar condition of twitching of single muscles, or groups of muscles, quite involuntary in their character. Insomnia, frontal headache, and the occurrence of cardiac palpitation are extremely common. I certainly am not of opinion that any amount of over-work *per se* would *produce* the dread disease tubercular meningitis; but am fairly assured that *given the constitutional tendency* to tubercle, over-pressure and worry may just turn the balance between quiescence and development, on the wrong side. There is one factor which I am convinced acts on our children with much ill-effect at the present time, and that is *dread of failure and of punishment*. This is ever hanging over the heads of the

weakest and most wretched, and the worry of this dread itself causes them to fail in learning, and results in punishment, which again produces fresh dread, and more punishment in its turn.

Whatever the result of this controversy may be, the public will most certainly soon demand some arrangement in our elementary schools, in which the amount of work expected from a child shall be in some way commensurate with its physical and mental powers. At present the great aim seems to be to get the children "on," that is merely to fit them for the higher standards at the earliest possible moment. Surely in this age of "progress" we are forgetting that knowledge and wisdom are by no means synonymous terms, and that cramming the young head with facts is not that "training of the mind," that instruction in the art of self-government, which in an age of competition and selfishness is so sadly needed; that prefcrence for others' welfare before our own, which, if rightly tended, developes into a noble life of self-sacrifice for the general good; the true "Nirvâna" where the spirit rests, the "land of the Leal."

I am, Sir, yours, &c.,

W. BARRETT ROUÉ.

Physician to the Bristol Hospital for Sick Children.

THE DANGERS OF DIPHTHERIA.

[To the Editor of the Medical Times.]

SIR,—The death of a useful member of the medical profession, brought about by his unselfish efforts to save the life of a pauper's child, calls to mind once more the question of the dangers of diphtheria, and of the means at our disposal for limiting the risks in dealing with them. First, as to the propriety of employing immediate suction to a tracheotomy tube, plugged with virulent membrane. Some doubt appears to exist as to whether it becomes the surgeon's *duty* to apply it when other means for the removal of such a plug have failed, and it is greatly to be desired that this point should be decided once for all by the arbiters of medical ethics. Assuming that no other means of suction were available than the direct application of the surgeon's own mouth to the wound, it can hardly be supposed that such a proceeding could ever come to be sanctioned as a part of a routine practice. But it appears to me that if proper means were provided whereby indirect oral suction could be applied in such a manner as would effectually prevent the entrance of any foreign material into the mouth, the practice might become not merely justifiable but perfectly safe. In the course of an india-rubber tube, two feet long, or less, there might easily be introduced a series of "stops" by which solid particles might be arrested and even the inspired air rendered antiseptic without diminishing the force of the current. Similar contrivances have long since been employed for catching the coarser impurities in tobacco pipes, and unless the virus of diphtheria be really in a gaseous form it is conceivable that a filter of wool or other material might be constructed of sufficient density to bar the passage of morbific germs. A filtering suction tube of this kind, if the idea be not too Utopian, should then become a part of the regular furniture of the surgeon's tracheotomy case. The simplest way to avoid the risks of suction in such cases would be found in an absolute prohibition of the practice. But would such a prohibition be regarded! One of the most coveted rewards in the Queen's service is obtained only by such as have successfully risked their own lives in saving others; but I venture to think that any man who has thus saved the life, even of an out-patient baby, at the deliberate risk of his own, need not envy the feelings of any recipient of the aforesaid decoration, although it be delivered by the hand of Royalty itself.

I am, Sir, yours &c.,

E. CLIFFORD BEALE.

London, October 22nd.

INVENTIONS AND IMPROVEMENTS.

BOLANACHI'S CHOCOLATE.

BOLANACHI'S chocolate has the appearance of ordinary chocolate paste, but it is distinctly a new departure, and different in composition from anything else in the market. It is composed of cocoa, and the sweet, clear, honey-like extract of ceratonia silique (St. John's Bread). The analysis corresponds to about 40 per cent. of real cocoa.

	Per cent.
Moisture	15·70
Cocoa butter	21·10
Albumenoids	8·02
Theobromine	·71
Sugar	34·80
Dextrin	9·42
Starch, gum, &c.	8·71
Ash	1·54
	100·00

The price of the chocolate is low, and the peculiar flavour imparted to it by the St. John's Bread is relished by a number of people. We may add that it is made of pure materials, and seems very nutritious and wholesome.

J. C. AND J. FIELD'S SAMPHIRE SOAP.

THE manufacturers claim to have incorporated into Samphire Soap the principles of the olive, the palm, and the lemon-thyme. The soap is certainly delicate in colour, and agreeable in odour. Not a few toilet soaps are tinted with mineral pigments; for example, pink soaps are often coloured with cinnabar. This particular soap is, however, coloured merely with a vegetable pigment, one that is perfectly innocuous, and incapable of irritating even a sensitive skin.

MEDICAL CONSULTATIONS.

No. I.

THE COLLEGE OF PHYSICIANS.

SCENE — *A back drawing-room in Mayfair.*

DRAMATIS PERSONÆ.

F.R.C.P.—*A risen consulting physician.*
M.R.C.P.—*A rising physician.*
L.R.C.P.—*A general practitioner.*

F.R.C.P. The case is clear enough, I think. I see no reason to arraign the labyrinth. As far as I can judge it is nothing more than a simple stomach giddiness—what in my youth we used to call "Vertigo a stomacho læso," the giddiness of a wounded stomach. But in these days of blunt simplicity, such solemn formulæ have become obsolete.

L.R.C.P. But why "wounded," Dr. F.? Her ladyship, I am sure, has far too reverent a care of her organism to willingly wound the meanest cell of it.

F.R.C.P. Not "wounded" in the surgeon's sense, but "injured," "offended;" "overpressed," if you prefer a more modern rendering. If you had to work every hour of the twenty-four like that poor viscus in the other room, would you not feel a sense of injury? Three good meals a-day, beef-tea in between, and cold soup twice in the night! A black slave could not be more overdriven. Believe me, our forerunners condensed a great deal of sound sense and shrewd observation into their quaint latinity.

L.R.C.P. Then I suppose a more restricted diet and a simple placebo——

M.R.C.P. Shouldn't it be a "placebimus" in this case, Mr. L.? (*with a smile to* F.R.C.P.)

F.R.C.P. Neither, if you please. I never sign a placebo. I leave that to sceptics and quacks. If you think medicine will do your patient no good, tell him so like a man. For my part, however, I never met with a case—a case of disease, I mean, a healthy patient is not a "case"—in which there was not a clear indication for some one or more of the many therapeutic agents at our disposal.

L.R.C.P. (*Sitting down to an escritoire*). Then what shall it be?

F.R.C.P. O, a little gentian and soda, I suppose, or potash and calumba. Do you agree? Before meals, if you please, Mr. L. By the way, have you looked into the *Lancet* to-day? The Council, I see, is to have its own way and to play ducks and drakes with the time-honoured privileges of the College.

M.R.C.P. For a consideration, I presume?

F.R.C.P. Ah, you have the modern way of looking at things. For my part, I never thought to see the day when the old College of Sydenham and Harvey would come down into the streets and join in the scramble for guineas. But nowadays prestige means nothing but a good balance at the banker's.

M.R.C.P. But surely the College intends to earn its gains? It will give *quid pro quo*.

F.R.C.P. It seems to me more like *taking* quid *pro quo*.

M.R.C.P. Ha ha, good! But surely, after all, the money is quite a secondary consideration. There will be its influence on the curriculum, and its extended relations with the profession at large.

F.R.C.P. Will it improve the physician's curriculum? Will it knit closer together the men for whom the College was founded? You will see what it will lead to. The next step will be to abolish the membership, and the next after that to choose the Fellows from the ranks of successful general practitioners. They seem inclined to the latter, as it is. We shall no longer have physicians educated as such, and the prizes of the profession will be given not for work, but for success. That is to say, our President will be elected by his patients. Then the licentiates, as they grow in numbers and influence, will claim a voice in our management, like the Members are claiming it from our new friends the Surgeons, and they will get it too. If you have your way you will turn the College into a vulgar democracy. We might as well be in America.

M.R.C.P. The prospect does not frighten me. Anything is better than stagnation. For my part, I see no reason why the general practitioner, if he be only as highly educated as our friend here, should not claim the rank as well as the name of a physician. I do not see why a Council elected from and by the licentiates should be less able to manage the affairs of the College, and keep up its traditions, assuming that it is advisable that they should be kept up, than a Council elected, as they practically are now, by themselves. I will not admit that successful general practitioners are a whit less honourable or honest than successful physicians, and the chances are, that they will show themselves quite as much men of the world.

F.R.C.P. Yes, I grant the latter, but that is the very thing I am fighting against. The fault I find with our present Council is that they are too much men of the world. Their aim is to be pleasant all round. In every question that comes before them their only solution is a compromise. They are wanting either in convictions or in the courage to own them. We ought to be ruled by men strong enough to do what is right and just without regard to their popularity. A body like the College ought to be above playing to the gallery. If you wish to turn us into a Commercial Company, and make a fortune by going into the market with a cheap article, contrived for the meanest capacity, you are setting the right way about it. The action of the Council means levelling down the licence to the capacity of the dullest student. Where else is he to get his diploma? Are you willing that all the dunces shall continue to cross the border for their qualification? I wonder, Mr. L., you have nothing to say to this degradation of a diploma which I am sure you value.

L.R.C.P. Value it? I suppose I do. But really in the full swing of practice one almost forgets what diplomas one has. Patients know nothing and care nothing about it, and I fancy that most of us, if we are successful, look upon our qualifications much as we look upon our school prizes. They are there on the shelf, but they don't mean very much. You see, we are conscious of having passed through a stiffer examination since we obtained them. Secure in the confidence of our patients, we can afford to forget the honours of our youth. You don't help us to remember them, you know.

F.R.C.P. Humph! Well, when our friend M. has his way, you will be masters in Pall Mall.

L.R.C.P. O, I am not anxious for a share in your responsibilities. I am too busy. I have no time for medical politics.

F.R.C.P. (*Triumphantly to* M.R.C.P.) You see? And you would entrust our welfare to men who are too busy to take any interest in the matter, or rather the whole affair would fall into the hands of those who are not busy, that is, who are not successful, that is, who are not capable.

M.R.C.P. (*Aside to* L.R.C.P.) A string of gratuitous inferences. (*Aloud*). Not so, give the busiest man a share in your management, and he will soon find time to interest himself in it. I am not aware that our President and Councillors are invariably men of leisure.

THE PATIENT. Excuse me for coming in, but you have been talking about me such an interminable time, that I fear my case must be very obscure.

F.R.C.P. Not at all, my dear lady, only extremely interesting.

MEDICAL NEWS.

UNIVERSITY OF CAMBRIDGE.—At a congregation, held on the 8th instant, the following degrees were conferred:—

Doctor of Medicine—

William Edward Steavenson, Downing.

Bachelors of Medicine—

George Tucker Clapp and Charles Edward Henry Cotes, Gonville and Caius.

Bachelor of Surgery—

Charles Edward Henry Cotes, Gonville and Caius.

The Examiners in State Medicine (Dr. Hubert Airy, Mr. W. H. Corfield, Mr. F. de Chaumont, and Mr. Alfred E. Carpenter) have issued the following list of those examined and approved for Certificates in Sanitary Science:—

A. Allan, M.D. Edin.; C. J. Covernton, L.R.C.P. Edin.; John J. Eyre, L.K.Q.C.P. Ireland; D. A. Gresswell, M.B. Oxford; K. P. Gapta, F.R.C.S. Edin.; H. Handford, M.D. Edin; J. B. Hurry, M.B. Cantab.; J. J. Macan, M.A., F.R.C.S.; T. J. M'Gann, F.R.C.S. Edin.; F. Marsh, F.R.C.S.; L. W. K. Phillips, F.R.C.S.; F. Welsh, F.R.C.S.; and W. C. Wise, M.D., St. Andrews.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 16th instant, and when eligible will be admitted to the pass examination, viz.—

Harry Adams, University of Melbourne; Franz F. F. Foster, Guy's Hospital; Henry H. Hatter, and Joinville J. Blancard, University College Hospital; Onslow A. Wickham, London Hospital; Henry R. Blee, and Archibald B. Brockway, St. Thomas' Hospital, and Charles C. Braine, Charing Cross Hospital.

Sixteen candidates were referred.

The following gentlemen passed on the 17th inst., viz.—

J C. Molson, and W. A. J. Nottingham, London Hospital; F. A. Collington, H. M. Brownfield, and T. F. Christal, Guy's Hospital; H. E. Mortis, Charing Cross Hospital; J. Fayrer, St. George's Hospital; J. Jones, and W. Malden, St. Bartholomew's Hospital, and A. P. Blenkinsop, University College Hospital.

Twelve candidates were referred for three months and two for six months.

The following gentlemen passed on the 18th inst., viz.—

R. B. Popham, and F. Boxall, University College Hospital; A. d'Ede Vallancey, St. Thomas' Hospital; W. H. H. C. Davey, Charing Cross Hospital; R. Powell, King's College Hospital; T. Halliwell, Guy's Hospital, and B. S. Mankar, Bombay.

Nine were referred for three months.

The following gentlemen were admitted members of the College at a meeting of the Court of Examiners on the 20th instant, viz.—

George Louis Rugg, L.S.A., Stockwell Villa, Clapham Road; J. Mc H. Gell, M.B. Glasgow, Isle of Man; H. Shackleton, M.D., Trinity College, Dublin, Dublin; Charles Caldecott, L.S.A., Basingstoke; Thomas Pennington, Hyde; F. M. Blackwood, L.S.A., Sunderland; Oliver Scattergood, M.A. and M.B. Oxon, Leeds; A. F. Clay, L.S.A., Birmingham; E. W. Panl, L.S.A., Langport; Howard Davis, L.S.A., Pontypridd; B. W. Thomas, L.R.C.P. Edin., Heathcote Street; Joseph Hick, L.R.C.P. Edin., Leeds; C. K. Bond, L.R.C.P. Lond., Lupus Street, S.W.; Herbert Bidwell, L.R.C.P. Lond. Ely, Camb., and W. M. Bristow, L.R.C.P. Edin., Liverpool.

Seven gentlemen were approved in Surgery, and when qualified in Medicine will be admitted members of the College, and five candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for six months, and four for three months.

The following gentlemen passed on the 21st inst., viz.—

R. G. Silverlock, L.S.A., Northwold, and E. S. Marder, Lyme Regis; R. A. Jackson, Oswestry; A. E. Dodson, L.R.C.P. Edin., Downes Park Road, S.E.; A. J. R. Tyler, L.S.A., Islingtou; D. A. de Montboun, Trinidad; G. R. R. Paine, L.S.A., Old Woolwich Road; John Gay, Hampstead; J. E. Walker, L.S.A., Huddersfield; Gregory Jordan, M.B., Edin., York Road, S.E.; F. E. H. Piggott, L.S.A., Richmond; C. H. Hall, L.R.C.P. Lond.' Bicton, near Shrewsbury; Horace Hartley, L.R.C.P. Edin.,' Cold Harbour Lane, S.E.; W. J. T. Barker, L.S.A., Bristol; H' G. O. Wharry, L.S.A., Gordon Square; S. K. Alcock, L.S.A.' Burslem, Staffordshire, and S. H. Youel, L.R.C.P. Edin., St' John's, S.E.

Seven gentlemen were approved in Surgery and when qualified in Medicine will be admitted members of the College, four candidates were referred for three months, and four for six months.

The following gentlemen passed on the 22nd inst., viz.—

Herbert E. Counsell, Worcester; Watkins L. Rhys, Treherbert, S. Wales; Joseph H. Patrick, Birmingham; William A. Wills, Westminster; Charles E. Tanner, Marlborough; Herbert Fox, L.R.C.P. Lond., Croydon, and Raymond Courteen, Monmouth.

Seven candidates who had previously passed in Surgery, having subsequently obtained Medical Qualifications, were admitted members, viz.—

Edward C. Greene, L.R.C.P. Lond., Chelsea; Herbert Fitton, L.R.C.P. Edin., Dewsbury; Joe N. Kaye, L.R.C.P. Edin., Kirkstall; Arthur J. Barnard, L.R.C.P. Edin., Buxton; Richard E. Genge, L.R.C.P. Edin., Waterston, Dorset; Arthur J. N. Smith, L.R.C.P. Edin., Sutton, near Ely, and Frank Jefree, L.S.A., Clapham Park.

Ten candidates who had previously qualified in Surgery, having passed in Medicine and Midwifery were also admitted members, viz.—

George E. Stewart, Pocklington, Yorks; Thomas L. Archer, Clapton; Alfred M. Page, Belsize Park Gardens; George A. T. Walton, Brook Street, W. Arthur Trower, St. Mary-at-Hill; George M. Bluett, Regent's Park Terrace; Richmond E. St. Romaine, Calcutta; Robert H. Currey, Liverpool; Henry J. Butler, Bradford, and Frederick W. Weir, Bristol.

Five candidates passed in Surgery, and when qualified in Medicine and Midwifery will be admitted members of the College. Ten candidates were referred for six months and two for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 16th, 1884:—

George Herbert Bennett, 40, Granville Square, W.C.; Percy Dean Bray, Bognor, Sussex; Ronald Angus Daniel, 118, Cornwall Road, Bayswater, W.; Charles Jno. Jacomb-Hood, Broadwater House, Tunbridge Wells; Frank Jeffrec, Howard Lodge, Atkins Road, Clapham Park; Caspar Robert Laurie, "The Elms," Buckhurst Hill, Essex; William Alexander Bowes McCabe, St. Heliers, Jersey; Jno. Robert Isaac Raywood, Thoone, Doncaster; Francis Gerald Southern, 50, Broad Street, Ludlow, Salop; Alexander Bishop Voisin, St. Lawrence, Jersey.

ROYAL UNIVERSITY OF IRELAND.—*Second University, Examination in Medicine.* The Examiners have recommended that the following candidates should be placed in the Upper Pass Division, and those marked with an asterisk should be admitted to the further examination for Honours:—

Patrick J. Burke, Cork; *John R. T. Connor, Cork; *John Flynn, Catholic University School of Medicine; William Hackett, Cork; William B. Hayes, Cork; *John A. Keogh, Cork; Charles R. Leader, Cork; *Samuel J. M'Ivor, Belfast; *William MacSweeny, Cork; *William Milligan, Galway; John J. Redfern, Belfast; *Francis L. Sealy, Cork; *William W. White, Cork; *E. M'N. Woods, Belfast; *William Bartley, Q.C., Galway; Robert Alfred Carter, Q.C., Belfast; Maurice Connery, Q.C., Cork; Charles James Cooke, Q.C., Cork; *J. T. Daly, Catholic University School of Medicine; Charles R. Elliott, Q.C., Belfast; Thomas Frizell, Q.C., Belfast; *Thomas Grainger, Q.C., Belfast; *Benjamin Hosford, Q.C., Cork; *John Kearney, Q.C., Cork; *Philip A. M'Carthy, Q.C., Cork; *Robert J. Macnamara, Q.C., Galway; *James Morwood, Q.C., Belfast; *Denis Sheahan, Q.C., Cork; *William White, Q.C., Belfast.

The Examiners have further recommended that the following candidates be also adjudged to have passed the examination:—

James Aherne, Cork; J. F. St. John Annesley, Belfast; Robert James Boyd, Galway; Patrick J. Cahill, Cork; William Henry Carlisle, Belfast; Charles J. Coumhan, Ledwich School of Medicine; Daniel Crowley, Cork; Tom C. Donaldson, Belfast; James Donelan, Royal College of Surgeons, and Carmichael College, Dublin; William Jamison, Belfast; Richard W. Leslie, Belfast and Galway; Edmund A. Lightburne, Queen's College, Belfast; Joseph M'Knight, Belfast; William K. MacRoberts, Medical School, Trinity College, Dublin; David Mark, Belfast; Joseph Thomas G. May, Galway; Michael J. Moran, Catholic University School of Medicine; William H. Murdoch, Belfast; Frank E. Murray, Belfast; Charles O'Neill, Belfast; Timothy O'Riordan, Cork; John J. Orr, Cork; Edward F. O'Sullivan, Cork; Edward Robiuson, Galway, and Anderson's College, Glasgow; William Stewart, Belfast; George S. Thomson, Belfast; John J. Tobin, Catholic University School of Medicine; Francis E. Townsend, Cork; Eaton W. Waters, Galway; Richard T. Young, Cork; William Frederick Bailey, Q.C., Belfast; Patrick Blackall, Q.C., Cork; Arthur Blackwood, Q.C., Belfast; Frederic James Burns, Q.C., Belfast; George Clarke, Q.C., Belfast; John N. Corbett, Q.C., Cork; Patrick G. Cotter, Q.C., Cork; Warren R. Crooke, Q.C., Cork; James C. Ferguson, Q.C., Belfast; Joseph Giusani, Q.C., Cork; Charles H. P. D. Graves, Q.C., Belfast, and Carmichael College; Edward Greene, Q.C., Cork; Charles Hayden, Q.C., Belfast; Peter Joseph Horkan, Q.C., Galway, and Catholic University School of Medicine; Samuel Roger Hunter, Q.C., Cork; Hugh Lewers, Q.C., Belfast; Marcus M. Loudon, Q.C., Belfast; James M'Avoy, Q.C., Belfast; Nicholas J. M'Donnell, Q.C., Belfast; Joseph B. M'Kay, Q.C., Belfast; Morgan M'Swiney, Q.C., Cork; Edward Magennis, Q.C., Belfast; James F. Magner, Q.C., Cork; Donald C. Martin, Q.C., Belfast; John Moore, Q.C., Cork; Hugh Smith Harrison, Q.C., Belfast; Cornelius O'Dohertv, Q.C., Cork; Michael O'Halloran, Q.C., Cork; Patrick Joseph O'Hara, Carmichael College; J. Joseph Prendergast, Q.C., Cork, and Guy's Hospital; Frederic C. Sinclair, Q.C., Belfast; Alfred J. Smith, Catholic University School of Medicine; Patrick J. Soraghan, Catholic University School of Medicine; E. Alfred Starling, Guy's Hospital, London; George Scott Tate, Queen's College, Belfast; William A. Wadsworth, Q.C., Galway; George Alex. Waters, Q.C., Galway; George Nesbitt Wynne, Carmichael College, and Ledwich School of Medicine.

The Diploma in Obstetrics.—The examiners agreed to recommend that the following should be adjudged to have passed the examinations:—

Patrick Blackall, Q.C., Cork; Arthur Blackwood, Q.C., Belfast; John W. Bullen, Q.C., Cork; Patrick G. Cotter, Q.C., Cork; Charles R. Elliott, Q.C., Belfast; James C. Ferguson, Q.C., Belfast; Joseph Giusani, Q.C., Cork; Thomas Grainger, Q.C., Belfast; Samuel Hamilton, Q.C., Belfast; Benjamin Hosford, Q.C., Cork; John Kearney, Q.C., Cork; Hugh Lewers, Q.C., Belfast; James M'Avoy, Q.C., Belfast; Philip A. M'Carthy, Q.C., Cork; Nicholas J. M'Donnell, Q.C., Belfast; James F. Magner, Q.C., Cork; James Morwood, Q.C., Belfast; Cornelius O'Doherty, Q.C., Cork; Michael O'Halloran, Q.C., Cork; Denis Sheahan, Q.C., Cork; Alfred J. Smith, Catholic University School of Medicine; Alfred E. Starling, Guy's Hospital, London; William White, Q.C., Belfast,

Students whose addresses are given as Belfast, Cork, or Galway, are from the Queen's Colleges in these towns.

Degree of Master of Surgery.—The Examiners have recommended that the following be adjudged to have passed the Examination :—

William Frederick Bailey, Arthur Blackwood, Robert A. Carter, George Clarke, Charles R. Elliott, James C. Ferguson, Thomas Frizell, Thomas Grainger, Charles H. P. D. Graves, Charles Hayden, James F. Hunter, M.D., Hugh Lewers, Marcus M. Loudon, James A. M. Macaulay, M.D., Matthew M'Auley, M.D., James M'Avoy, Nicholas J. M'Donnell, Joseph B. M'Kay, William N. M'William, M.D., W. A. P. Martin, M.D., James Morwood, George Scott Tate, and William White, of Queen's College, Belfast; Patrick Blackhall, Maurice Connery, Charles James Cooke, John N. Corbett, Patrick G. Cotter, Warren R. Cooke, Jacob Fairbrother, M.D., Joseph Giusani, Edward Greene, Benjamin Hosford, Samuel R. Hunter, John Kearney, Philip A. M'Carthy, James F. Magner, James O'Connel, M.D., Cornelius O'Doherty, Michael O'Halloran, and Denis Sheahan, of Queen's College, Cork; William Bartley, Peter Joseph Horkan, Robert J. Macnamara, and George A. Waters, of Queen's College, Galway; Joseph Thomas Daly, Alfred J. Smith, and Patrick J. Soroghan, of the Catholic University School of Medicine; John D. Kenny, M.D., of Ledwich School of Medicine; Patrick Joseph O'Hara, of Carmichael College; E. Alfred Starling, of Guy's Hospital, London; Geo. Nesbitt Wynne, of Carmichael College and Ledwich School of Medicine.

King and Queen's College of Physicians in Ireland.—At the monthly examination for the licentes of the College, held on Monday, Tuesday, Wednesday, and Thursday, October 6th, 7th, 8th, and 9th, 1884, the following candidates were successful :—

For the Licence to Practise Medicine—

Mary Emily Dowson, London; Switzer Soutter Harwood, M.D., Univ. Pennsylvania, Sydney, N.S.W.

For the Licence to Practise Midwifery—

Robert Bell, M.D., R.U.I., Moneymore, Co. Derry; Mary Emily Dowson, London; Nicholas Charles Ferguson, M.B., Univ. Dublin, Dublin; Switzer Soutter Harwood, M.D., Univ. Pennsylvania, Sydney, N.S.W.; Archibald Pollock Bailey Moore, M.D., R.U.I., Belfast; Robert T. A. O'Callaghan, Bagenalstown, Co. Carlow.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the Supplemental Charter of December 12th, 1878, have been duly enrolled Members of the College :—

Alexander Fry, Lic. Med. 1845, Mount Alton, Templeogue, Co. Dublin; James P. Ryan, Lic. Med. 1865, Melbourne; Robert Henry Robinson, Lic. Med. 1867, Surgeon-Major, Army; Michael Austin Boyd, Lic. Med. 1869, 90, Upper George's Street, Kingstown; John Sheridan Kennefick, Lic. Med. 1870, Clonmel, Co. Tipperary; Henry Walter Butler Boyd, Lic. Med. 1872, Surgeon, Bombay Army; Samuel Keays, Lic. Med. 1876, Surgeon, R.N.; John Alfred Frend, Lic. Med. 1877, Rosario, Argentine Republic; Edward Daniel O'Neill, Lic. Med. 1878, Richmond Lunatic Asylum.

Royal College of Surgeons, Edinburgh.—At the annual meeting of this College, held on the 15th instant, John Smith, M.D., LL.D., was unanimously re-elected president for the ensuing year.

Westminster Hospital.—The Entrance Scholarships for 1884 have been awarded as follows: (1) J. Dickinson (Fence, value 40*l.* per annum); (2) G. T. James (value 40*l.*)

St. Thomas's Hospital Medical School.—An Entrance Science Scholarship of the value of 100*l.* has been awarded to Francis Charles Abbott and one of 60*l.* to Charles James Martin.

King's College, London.—The Entrance Scholarships have been awarded as follows :—Warneford Scholarship of 75*l.* each to Messrs. A. S. Sandifer and T. B. Beach. Sambrooke Exhibition of 50*l.* to Mr. H. S. Ballance; and Clothworkers' Science Exhibitions of 50*l.* and 25*l.* to Messrs. T. G. Brodie and C. W. Atkinson.

University of Edinburgh—Faculty of Medicine.—The Vans Dunlop Scholarship for the subjects of the first year's study in medicine, viz., chemistry, anatomy, botany, and zoology, has been awarded to John Clarence Webster, B.A. (Halifax), of New Brunswick, Canada. This scholarship is of the annual value of 100*l.*, tenable for three years.

Admiralty.—At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on the 14th instant, Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of 58*l.* was distributed among the several applicants.

Naval Medical Service.—Staff Surgeon T. D'Arey Bromlow, M.D., has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet. Fleet Surgeon J. W. S. Meiklejohn, M.D., has been placed on the Retired List, with permission to assume the rank and title of Deputy Inspector General of Hospitals and Fleets. The following surgeons have been promoted to the rank of Staff Surgeon in Her Majesty's Fleet:—W. F. Spencer, M.D., R. W. Williams, A. C. Queely, O. P. Browne, B.A., M.D., F. R. M. Loftie, A. H. Kelly, B.A., M.D.

Army Medical Department.—In accordance with the Royal Warrant just issued the "Army Medical Department" has disappeared from the official nomenclature of the medical officers of the army, the official designation of the department being in future the "Medical Staff," and that of the Army Hospital Corps the "Medical Staff Corps." In the official list just issued both the Army Medical Department and Army Hospital Corps appear under the heading of "Medical Staff."

Glasgow Royal Infirmary.—Dr. Thomas, the superintendent, has been seriously ill with acute bronchitis; it is, however, gratifying to say that he is now considered out of danger.

Recent Legacies.—Mr. William Robert Mitchell has bequeathed 1,000*l.* to the Middlesex Hospital. Mr. Thomas Browning has bequeathed 52*l.* 10*s.* each to Charing Cross Hospital; the Hospital for Consumption and Diseases of the Chest, Brompton; the Cancer Hospital, Brompton; the Asylum for Idiots, Earlswood.

The Late Mr. W. Bates, M.R.C.S., of Birmingham.—A correspondent in "Notes and Queries" gives an appreciative sketch of the late Mr. Bates, of Birmingham, a frequent contributor to that serial, and a well known scholar, antiquary, and *virtuoso*. Mr. Bates had a fine collection of pictures of the English School, and in the course of his rambles had rescued from obscure book-stalls many engravings and documents of interest.

Death of Dr. Charles Barham.—We regret to announce the death of Dr. Charles Barham, the oldest physician in Truro, at the age of 80. Dr. Barham took the degree of M.B. at Cambridge in 1827, and afterwards studied in Edinburgh and Paris. He was a justice of the peace for Truro, a vice-president of the Royal Institution of Cornwall, and consulting physician of the Royal Cornwall Infirmary. He was author of a "Report on the Condition of Children in Mines," of "The Sanitary State of Truro."

The Parkes Museum.—The winter course of lectures will commence on Thursday, November 13th, when Mr. G. J. Symons, F.R.S., will give an address on the relation of Meteorology to Hygiene. On November 27th, Dr. Alfred Carpenter will speak on progress and co-operation in Sanitary work. Other lectures will be given by Sir Spencer Wells, Bart., Mr. Shirley Murphy, Mr. Cantlie, and Dr. Crichton Browne.

Lectures on Sanitary Subjects.—Miss Barnett, of the National Health Society, 44, Berners Street, W., has again started on a lecturing tour in the provinces. Manchester, Carlisle, Keswick, Workington, Cockermouth, and many other towns are to be visited. Her subjects are likely to prove attractive at a time when sanitary precautions are more than ordinarily needed :—"How to Oppose the Cholera," "Prevention of the Spread of Infectious Diseases," "Air and Ventilation," "Good Food," "Sensible Dress," "Management of Infants," and kindred subjects are all treated in a simple, practical manner, and we cannot help wishing that such teaching could be constantly and thoroughly carried out in every town and village of the United Kingdom. That "Prevention is better than Cure" is a motto we should all do well to remember.

The Microscopist run Mad.—The following words will be read with interest by all prayerful souls who are looking for the millennium of medicine. They are from an article upon the "Microscope in Analysis" in the *Scientific American* :—"The student of medicine is to-day enabled to unravel before the potent glance of the perfected microscope the deepest mysteries of the medicinal plant, flower, herb, or root. The nature and virtues, attributes, &c., of

these can be studied at leisure, and gazed upon with an eye that magnifies from a few hundred to thousands of diameters."—*Boston Medical Journal*, September 18th.

Hospital Sunday Fund.—A meeting of the Council of the Metropolitan Hospital Sunday Fund was held on the 10th instant, for the purpose of distributing among the various hospitals and dispensaries the sum of 4,500*l.*, the result of the recent hospital *fête* at the Health Exhibition. Sir Sydney Waterlow said the distribution committee recommended that the sum in question, with 713*l.* which had also been paid into the fund, making 5,213*l.* in all, should be distributed *pro ratâ* among the various hospitals and dispensaries which had recently received the bulk of the fund. The grant would be equal to about one-sixth of what they had received already this year. This was agreed to. In the course of a subsequent discussion Sir S. Waterlow controverted the statement made in recent correspondence to the effect that the Hospital Sunday movement was losing its popularity, this year's fund being the largest ever collected. Writers in the press had been advocating that the collections on Hospital Sunday should be divided into districts for the sake of the institutions in those particular localities, but that suggestion, if adopted, would kill the movement, for its object was to collect in rich districts as well as in poor funds for the relief of the sick and suffering throughout the whole metropolis. He thought the managers of the hospitals had fallen into the mistake of relying too much upon the results of Hospital Sunday, and of relaxing their exertions for their respective institutions in the rest of the year.

Site for an Infectious Hospital at Liverpool.—On the 8th inst., the Liverpool Health Committee proposed to the City Council a piece of ground at Edge Lane on which to erect a municipal hospital for infectious diseases. The evening before the medical men of Liverpool were convened at the Medical Institute by Drs. Gee, Cameron, and Carter, to consider this site. Its close proximity to the "gridiron" of the London and North Western Railway was thought to be a fatal objection. The "gridiron" is a net-work of rails over which 299 passenger trains, and 149 goods trains pass daily and where 2,000 trains are shunted or made up every twenty-four hours. The dreadful and frequent noises of these trains were described in graphic language by several speakers, and a resolution condemning the proposed scheme was unanimously agreed to and directed to be forwarded to the Mayor. Next day the Council dropped the matter and determined to see if the temporary small-pox hospital could not for a time at least be made available for all infectious diseases.

King and Queen's College of Physicians.—At the annual stated meeting of the College, held on St. Luke's Day, October 18th, 1884, the following officers were elected for the ensuing year:—*President*, Francis Richard Cruise, M.D. *Vice-President*, George Frederick Duffey, M.D. *Censors*, Geo. F. Duffey, M.D.; John Mallet Purser, M.D.; Francis J. B. Quinlan, M.D.; John Rutherfoord Kirkpatrick, M.B. *Additional Examiners*, John Magee Finny, M.D.; Arthur Wynne Foot, M.D.; Christopher J. Nixon, M.B.; John Mallet Purser, M.D.; Francis J. B. Quinlan, M.D.; Walter George Smith, M.D. *Registrar*, John William Moore, M.D. *Treasurer*, Aquilla Smith, M.D. *Examiners in Midwifery*, Stephen M. MacSwiney, M.D.; Wm. J. Smyly, M.D. *Professor of Medical Jurisprudence*, Robert Travers, M.A., M.D. *Representative on the General Medical Council*, Aquilla Smith, M.D. *Agent to the Trust Estate*, Charles Uniacke Townshend, Esq. *Law Agents*, Messrs Stephen Gordon and Son. The following member of the College was elected to the Fellowship—Joseph M. Redmond, Physician to the Mater Misericordiæ Hospital. *Examiners for the Certificate in Sanitary Science*, Dr. Duffy V.P. (in Ætiology and Prevention of Disease); Dr. Walter Smith (in Chemistry); Dr. Quinlan (in Meteorology, Climatology, and Vital Statistics); Mr. George R. Price, B.L. (in Law); Mr. Wm. Kaye Parry, C.E. (in Engineering). *Librarian on the Foundation of Sir Patrick Dun and Clerk to the College*, Mr. Samuel W. Wilson.

Birmingham and Midland Eye Hospital.—Mr. Chesshire having resigned his appointment as honorary surgeon, the committee have unanimously passed the following resolution:—"That the resignation of Mr. Chesshire as one of the honorary surgeons of this hospital be accepted by this committee with sincere regret. In doing so the committee desire to express their high sense of the valuable services which have been rendered to the hospital by Mr. Chesshire for the long period of more than forty years, and to acknowledge the energy which he has always displayed in promoting the interests of the institution, both as honorary surgeon, and also during the earlier years of its existence, as honorary secretary, and the committee are also pleased to find that Mr. Chesshire does not desire to entirely sever his connection with the hospital, but is willing to continue his services to the institution as a consulting surgeon."

Au Bon Droit.—We extract the following eloquent counterblast against the crime of adulteration from Dr. William Hitchman's "Lectures on Health":—Urge the most punctilious observance of normal skin, natural temperature, intellectual recreation, regulation of work, sleep, and waking hours, not omitting scientific ventilation and improved dwellings for the poor, cheap food, good cookery, as well as singularly minute attention to clothing and changes of weather—physical puritanism, in fact, with avoidance of alcohol, tobacco, snuff, and *every* intemperate habit; yet none shall raise Britannia's present veil of darkness until each child is radiant with the beauty of individual reform. Nobility of character is the only real life. In justice to the working classes, however, with whom I have been largely and intimately associated for some half century past, either as medical student, hospital surgeon, or poor-law medical officer and Sunday lecturer, let me say that—opposed to their progress is a social fiend; in the *adulteration* of food and drink is to be found a veritable "demon of inhumanity," or coldness of heart and barbarous cruelty. Surely that man *is* a devil in deed and in truth who, "when asked for bread, giveth a stone." Why does not a competent board of chemists scientifically declare on each article *ex cathedrâ*, that the veriest necessaries of life are really what they seem to be? Some of these sophistications, comparatively speaking, are perfectly harmless—I know from analysis—whilst other foods and drinks are absolutely poisonous, and often, alas! fatal. Why is not the adulteration of *these* murderous tanners and quack-like dyers wholly prevented? Because, severe as the law of the land now is, they contrive to evade it by some device or cunning. And "the thing pays!" Adulteration of food and drink results in the daily construction throughout the country of mansions urban and suburban, whose foundations are the graves of its helpless and indigent victims.

The Lunacy Laws and Imbecile Children.—At the annual meeting of the Royal Albert Asylum for Idiots—an institution which is deservedly held in high estimation in Lancashire—a very important suggestion was brought forward, which must receive attention whenever the impending revision of the lunacy laws takes place. At present weak-minded and imbecile children are regarded in law as on the same footing as all other insane persons, and cannot be received into special schools for training and education without the formal order, certificates, and statement that are required for the consignment of adult lunatics to asylums. The consequence of this regulation is not only that undue delay and expense occur in sending such children to school, but that parents and other members of a family object and refuse to incur the fancied stigma of having a relative under certificates; and thus an imbecile child loses altogether the immense benefit of special training—very often goes completely without education. Whatever safeguards are necessary in the committal of adult lunatics to asylums—and we have never been disposed to minimise or reduce them in any way—such safeguards are surely unnecessary in the case of weak-minded children. Every father possesses the right to send his children to any school that he chooses. Why should the right be denied him if one of his children is of weak mind? All children while at school have their liberty interfered

with. No additional hardship is felt by an imbecile child. If safeguards against ill-usage are required they can be given by inspection, regulation and if necessary licensing of the schools, but for this purpose no obstacle to admission is required or would be effectual. Nothing would be easier than to fix a limit of age, say fourteen or fifteen, below which the ordinary statutory requirements for admission and retention in an institution should not apply; and on the attainment of this age it might be made obligatory for certificates to be obtained in order to legalise the further detention of the patient. By some such regulation the liberty of the subject would be sufficiently safeguarded, the obstacles to speedy treatment would be removed, and the necessity for a formal examination at a fixed age would be an additional incentive to the asylum authorities to do their best, and would at the same time prevent any possibility of an unduly long detention under asylum treatment.

The Medical Council and the Apothecaries' Society.—The following is the letter from the Master of the Apothecaries' Society, which was read at the recent meeting of the General Medical Council, but which the Council decided by a large majority should not be entered on the minutes.

Apothecaries' Hall, October 15th, 1884.

Dear Sir Henry Acland,—I beg leave to acknowledge the receipt of the several reports of the meetings of the General Medical Council during the past week, which have been forwarded to me as Master of the Apothecaries' Society. Permit me to point out to you a serious discrepancy in these reports which materially endangers the interests of the Society. It will be in your recollection that when a Conjoint Board for England was originally proposed (see General Medical Council Revision, June, 1877), the Society of Apothecaries could not then join in the movement with the Royal Colleges. In order to do so we were compelled to make important sacrifices and surrender certain powers and privileges. The basis of that scheme, approved and adopted by the General Medical Council in February, 1879, consisted in giving a majority of examiners in Medicine to the Royal College of Physicians, the Society was accredited with a majority of examiners in Chemistry, Materia Medica, &c., whilst the departments of Surgery, Anatomy, &c., were to be undertaken by the Royal College of Surgeons, since the Apothecaries' Act does not confer the power of examining in surgery for our licence. Final arrangements were further made for carrying out the three portions of this Conjoint Board in its examinations; the first was to take place at the Apothecaries' Hall, the second at the College of Surgeons, the third at the College of Physicians. From this scheme the Royal College of Surgeons withdrew some time after the above arrangements. In your address of October 7th you suggest the adoption of three short clauses legally binding on the Examining Boards, in the first of which the Council shall not admit to the Medical Register any person who has not passed an examination satisfactory to the Council in Medicine, Surgery, and Midwifery. The Society adopted the scheme of 1878-79 upon these very grounds and which the General Medical Council sanctioned and approved at that period. But now it appears that the Council have negatived their former resolutions in rejecting the amendments A, B, C, D, to Sir H. Pitman's motion of October 9th, 1884, by which, B, C, amendments, specially the Society of Apothecaries is refused the privilege of co-operating with the above-named colleges though the General Medical Council had previously agreed to adopt the scheme referred to. In deference to the judgment of the General Medical Council it appears that two errors are now committed; one of injustice in allowing the two colleges to combine at all after the decisions of 1878-9. The second is a still greater injustice in excluding the Society of Apothecaries, who were parties most interested in that scheme, and who had made the greatest sacrifices in furthering the views of the General Medical Council in their recommendations. I wish to press upon the attention of the General Medical Council that the Society is still willing to recur to the original project as laid down by the Committee of Reference in their report to the co-operating medical authorities and approved by the General Medical Council, February 1879, Parts 1, 2, 3.

I remain, Dear Sir Henry Acland,
Yours truly,
Sir Hy. Acland, K.C.B. Geo. Corfe.

Society for Relief of the Widows and Orphans of Medical Men.—The Quarterly Court of the above society was held in the rooms of the Royal Medical Chirurgical Society, on Wednesday, October 8th, at 8 p.m., the President, Sir James Paget, F.R.S., in the chair. One new member was elected at the meeting. The election of a member was declared void, and the deaths of four were reported, including those of two Vice-Presidents, Mr. Cæsar Hawkins, and Sir Erasmus Wilson, Dr. Quain moved, Sir Henry Pitman seconded, that the President be requested to communicate to Mrs. Hawkins and Lady Wilson an expression of the sincere sympathy of the Board of Directors of the society on the occasion of their great loss, and to Lady Wilson their grateful appreciation of the munificent legacy of 5,000*l.* bequeathed by Sir Erasmus Wilson. On the recommendation of the Acting Treasurer, Mr. Fuller, it was agreed to give the usual present at Christmas to the widows and orphans receiving grants from the society. The present has been given now for ten years, but its continuance must depend on the state of the funds. Applications for grants were read from 59 widows, 5 orphans, and 3 orphans on the Copeland Fund, and it was resolved to recommend that a sum of 1,259*l.*, be distributed among them at the next court. Applications were read for the first time from 2 widows and 5 orphans, and grants were made, subject to the approval of the Committee of Visitors. Another application of a widow for herself and child was referred to the visitors to report on to the next court.

Fees to Medical Witnesses in Sanitary Cases.—The Chairman and magistrates at Nenagh Quarter Sessions, county Tipperary, were occupied for a considerable period on Friday, October 10th, in investigating an appeal against a decree made by magistrates at the instance of the guardians of the Roscrea Union, against Mr. Michael Minton, for 5*l.* for his not providing certain sanitary requirements for houses of two tenants of his, whereby a nuisance was caused. The decision was affirmed with costs. A question then arose as to the costs to be given to meet the expenses of the medical officer, who was in attendance for two days, Dr. Blacker C. Powell. A claim of 2*l.* 2*s.* was made, being the sum which the guardians were bound to give, under "the Public Health Act of 1882," and as approved by the Local Government Board for Ireland. It was contended that the doctor, being the sanitary officer of the board (salary 10*l.* per annum), was bound for this sum to do all the sanitary work required; also that no more than 2*l.* for costs could be awarded in any appeal. The court ruled that the doctor was entitled to 2*l.* 2*s.* a-day, and granted him 4*l.* 4*s.* which, with other costs given, amounted to a sum of 12*l.* 12*s.*, no sum being limited by the Act. The judge declined to state a case for the superior courts. Mr. Sheppard, solicitor, appeared for the guardians, and Messrs. Nolan and Minton for the appellants.

Cinchona from Southern India.—The Tambracherry Company have this year planted 75,000 cinchonas, which, added to those of previous years, bring up the total to 760,000. The nurseries contain about 100,000 seedlings to supply any vacancies in this year's planting, and the seed laid down consists almost entirely of the valuable Ledgeriana variety, with which the directors hope to complete the nulbon trees. The present season has been remarkable for only one-half the usual rainfall up to the middle of August, and the heaviest burst of monsoon so late as the last week of that month, instead of June. Such abnormal weather has not been without a detrimental effect on the crop, but has had the advantage of giving the finest season for planting experienced for many years. The latest estimate of the growing crop on this company's estates alone is 170 tons, and but for the absence of the usual blossoming showers in some places, and a heavy fall of two inches on one estate on the very day the principal blossom came out, there would doubtless have been about 200 tons. The harvesting of cinchona will commence fairly this season, and 16,000 trees will be shaved, while in the following years there will come into bearing—1880 planting, 23,000; 1881 planting, 114,200; 1882 planting, 111,000; and 1883 planting, 140,000. The directors of the Tambracherry Company attach very considerable importance to the fact that no country in the world can compete with Southern India in the cost of the production of bark, and when the accumulated stock of old Peruvian and the excessive supply of half-matured Ceylon barks have been cleared away, a most promising future lies before the production of India. With this prospect, the directors have willingly joined in a small syndicate for the extraction of the alkaloids on the spot, which has been started under promise of support from the Government of India, and which, if successful, will result in the saving of a considerable freight, and admit of the utilisation of a large quantity of prunings and twigs which at present are not worth the cost of shipment. A qualified chemist has just left England with the necessary apparatus for a year's trial at Calicut.

THE LAW IN RELATION TO BAD PLUMBING IN NEW YORK.—The law on this subject, as exemplified in a case reported in the *New York Medical Record*, September 20th, seems far more stringent than our own. "In a suit for rent claimed to be due from a tenant for a suite of rooms in an apartment house, it appeared that the defendant's wife and servants were taken sick by inhaling a malarial or poisonous gas in the apartments occupied by them; that this unhealthy condition of the apartments was owing to the defective condition of the general plumbing work of the house, of which the landlord was notified by orders received from the Board of Health, requiring him to have changes made in the plumbing work, and which unhealthy condition could have been removed if he had complied with these orders; that the defendant waited for two weeks, when, finding that nothing was done on the part of the landlord, he left under the apprehension that he was imperilling the health of himself and family by remaining. Under these circumstances, the judge who tried the case thought that this is what is called in law a constructive eviction, and the tenant could not be forced to pay rent during that portion of his lease subsequent to his removal. The decision has recently been affirmed by the General Term of the Court of Common Pleas, and unless reversed by the Court of Appeal, which is unlikely, will be the law in future."

SOME THERAPEUTICAL DELUSIONS.—The *New York Medical Record* (October 4), noticing a communication in which a valued correspondent urges the necessity of a more critical and careful analysis of therapeutical experience, observes that while nihilism in therapeutics is greatly to be deprecated, a more critical study of the action of remedies and of alleged therapeutical results is earnestly to be desired. "We have carefully examined the 'delusions' set forth by our correspondent, and find that in the main they agree with the results of the more conservative clinicians and of pharmacological experiments. They are as follow:—It is a delusion that veratrum viride or aconite will abort croupous pneumonia, or essentially modify its course; that chlorate of potash is of any use in catarrhal angina; that nitrate of potash is an anti-pyretic, anti-rheumatic, or (to any appreciable extent) a diuretic; that lime-water will dissolve a diphtheritic or croupous membrane; that nitrate of silver is of any value in epilepsy; that the excessive and continuous use of iron induces plethora, with dizziness, flushings and palpitations; that iron should be given in phthisis; that mercury is anti-plastic and anti-phlogistic; that arsenic has any value in diabetes; that iodide of potassium promotes absorption of serous exudations and of non-specific connective tissue in hyperplasia; that sulphur and sulphur in baths is of any value in rheumatism; that charcoal, when moist in the stomach and intestines, has any absorptive power, or is of any use in flatulence by virtue of that power; that dilute acids are 'cooling,' *i.e.*, lower temperature and lessen heart-action in the non-febrile; that colchicum is beneficial in rheumatism; that drinking sulphuric acid prevents chronic lead-poisoning; that iodoform given internally is anything but a poor substitute for iodide of potass; that croton-chloral has a specific effect on the fifth cranial nerve; that tannic acid (or the plants containing it) is of any value given internally for hæmorrhages, except perhaps those of the stomach and bowels, or that it is of any value as a gargle in chronic pharyngitis, or that it is an astringent to mucous surfaces or blood-vessels; that turpentine is a stimulant to the heart and nervous system; that musk is a nerve or heart stimulant (it belongs with turpentine to nerve depressants); that ox-gall is of the slightest therapeutical utility; that hydrocyanic in ordinary medicinal doses is either a local or general sedative (it is rather an irritant); that quinine in either large or small doses is a stomachic, except in convalescence from malarial attacks; that hydriodic acid has any specific effects other than those possessed by the iodides."

PER OS AND PER OREM.—Prof. Goodell in the *Philadelphia Med. Times*, July 12, says: "Just let me call your attention to a mistake that is very commonly made. There is a widespread idea that the Latin word *os* is of the masculine gender, and you will frequently see written *per orem*. *Os* is a neuter noun of the third declension, and its accusative is like the nominative; so that 'by the mouth' should be written *per os* and not *per orem*."

SYSTEM OF PROMOTION AMONG GERMAN PROFESSORS.—A stranger in selecting his courses should consult some student who has been already at work, for not unfrequently he will find that he can gain more from the course of a privat-docent who is comparatively unknown than he can from the instruction of the more celebrated professor. The young teacher knows the wants of the student, his memory of his own needs being fresh, and he does his best to supply them. All the successful professors in Germany have begun as privat-docenten, and there are many docenten teaching small classes in small universities who are destined to attain the highest positions in a few years. One of the reasons why the professors in German universities are so superior, is because of their preliminary training as privat-docenten, and the fact that they have been chosen on the principle of the "survival of the fittest." In France, all positions are obtained by *concours*, and the competitive examination determines every man's advancement. In Germany, the vacant positions are filled by appointments made by the Minister of Instruction on the recommendation of the faculties of the universities. That these faculties are watching the course of the privat-docenten in every university, and appreciate merit whenever found may be illustrated by the history of Nothnagel, now Professor of Clinical Medicine at Vienna, and probably the most brilliant medical lecturer in the world. He graduated at Berlin in 1863, and from 1864 to 1868 he was privat-docent in Königsburg. He was then called as privat-docent to Berlin, where he remained until 1870, when he received an appointment as assistant professor at Breslau. After two years, Freiburg offered him the chair of materia medica, and two years later he was called to Jena as Professor of Clinical Medicine and Pathology. He left that only last year to take the high position of head of a clinic in the Vienna School. As long as German universities thus select the best talent available in the whole country, it will not be surprising that their halls are crowded with students from the entire world.

COCA OR CAFFEINE.—The experiences of different investigators as to the properties and therapeutic value of erythoxylon coca have been various and often disappointing. A sufficient explanation of these discrepancies is supplied by the publication of some "open secrets" of the coca trade. Dr. Squibb, in his *Ephemeris* for last July, stated that the search for good coca, alike in the ports of Central and Southern America, in London, Hamburgh, and New York, even without limitation as to price, was almost invariably unsuccessful. Not that the drug, putting the condition of quality aside, was scarce, hundreds of bales being attainable at any time, but that it was so poor as to be quite unfit for use. Coca is much like tea as regards its capacity for transportation, being very sensitive and perishable, and only fit for use when fresh and green, and well cared for during packing and carriage. Dr. Squibb believes that unless treated throughout with all the care devoted to the preparation of the best tea, and like it, imported in lead lined or at least "air-tight" packages, it is simply impossible that it should be obtainable in any other than a worthless condition. He adds: "It is pretty safe to say that nineteen-twentieths of the coca seen in the United States market within the past two years must be inert and valueless; yet all is sold and used, and its reputation as a therapeutic agent is pretty well kept up. At least many thousands of pounds of the brown ill-smelling leaf, and of preparations made from it, are annually sold. And worse than this, considerable quantities of a handsome-looking green leaf, well put up and well taken care of, have been sold and used as coca, when wanting in nearly all its characteristics." Another large manufacturer has seen but one or two small lots of moderately good coca for more than a year past, with no prospect of a supply of better quality; and, uninfluenced by the fact that popular faith in the remedy seems to grow in inverse proportion to its declining therapeutic value, frankly states that he has finally "decided to give up making a fluid extract of coca and has left it off his list, adopting a fluid extract of tea instead as a superior

substitute for those who may choose to use it, and regrets that this course was not taken a year ago." Some experiments carefully conducted with the view of estimating the comparative value of coca and of caffeine as sleep evaders appeared to indicate that three fluid drachms of a good specimen of the fluid extract of coca were therapeutically equivalent to three grains of pure caffeine. An equivalent amount of the coca preparation is said to have assayed 0·45 grain of cocaine. Hence cocaine is about 6·5 times as effective as caffeine; but the coca accessible, and even the very best coca, contains a very much smaller proportion of its alkaloid than caffeine-yielding articles do of that principle.

Glasgow Southern Society.—At the annual meeting of this society, held on the 9th instant, the following gentlemen were elected for the session 1884–85, as office-bearers:—President—Alexander Napier, M.D. Vice-President—Wm. Carr, M.B. Treasurer—Edward McMillan, L.R.C.S.E. Secretary—David Tindal, M.D. Editorial Secretary—Jas. Hamilton, M.B., C.M.

The Epidemic at Kidderminster.—Acting under the instructions of the Local Government Board, Dr. Parsons is again on a visit to Kidderminster, and has commenced what it is stated will be a house-to-house visitation of the numerous residences where typhoid fever exists. There is a strong desire for a public enquiry, and a communication has been addressed to Dr. Parsons on the subject. The epidemic has now taken a more favourable turn, but there are a large number of cases still under treatment.

Edinburgh Royal Infirmary.—At a recent meeting of the managers of the Royal Infirmary it was reported that 7,624 cases had been treated during the financial year ending 30th ultimo. This number, as compared with 6,829 in the previous year, shows an increase of 795 patients who have received the benefits of the institution.

A Precaution in Post-Mortems.—Before undertaking a *post-mortem*, Dr. Chevenger recommends the holding the hands over strong liquid ammoniæ, when the smarting which ensues will reveal all sensitive or abraded places that need a touch of caustic before beginning the examination.

Royal Caledonian Asylum.—Dr. Mitchell Bruce has been appointed Physician to the asylum in place of the late Dr. Tweedie.

Medicine Bottles.—M. Pierre Vigier, in continuation of his useful pharmaceutical communications in the *Gazette Hebdomadaire*, expresses in the number for October 3rd the desirableness that every pharmacy should contain two sorts of bottles of different colours and shapes, viz., cylindrical white bottles for medicines taken internally, and blue and square bottles for those used externally. The difference of *shape* is a great preventive of accidents, for even in the night the simple touch of the bottle indicates the nature of its contents. When the Minister of Commerce some time since rendered it obligatory to affix an orange-coloured label to all bottles containing medicines for external use, M. Vigier endeavoured to induce the Société de Pharmacie to exert its influence to have the order extended to the shape of the bottles; but that body, while acknowledging the great utility of the suggestion, refused to press it upon the Minister on the ground that carrying it out would bear hard upon the small and rural pharmacies by obliging them to keep bottles of two shapes! Many *pharmaciens* have, however, of their own accord adopted the plan, and it is in the hope of inducing others to follow their example that M. Vigier now writes. He observes that most practitioners can call to mind cases in which liniments, collyria, &c., have been taken by mistake, which they would not have been had the mere shape of the bottle given its warning.

Houses of Refuge in Contagious Diseases.—The Paris *Conseil d'Hygiene Publique* has determined to establish "Houses of Refuge" into which, on the appearance of croup or any other contagious disease in one of their children, parents who are not in a position to protect their other children from contagion, may obtain admission for them.

APPOINTMENTS.

Alexander, W., M.R.C.S.—Assistant Medical Officer to the Mile End Old Town Infirmary, *vice* Beattie, resigned.

Chadwick, C. M., M.A., M.B. Oxon, L.R.C.P. Lond.—Physician to the Leeds Public Dispensary, *vice* Thomas Churton, M.D., resigned.

Chambers, H. W., L.R.C.P., M.R.C.S.—Senior Assistant House Surgeon to the Hull General Infirmary, *vice* Arthur Jackson, M.B., &c., resigned.

Davies, J. T., L.R.C.P.—House Surgeon to the Denbighshire Infirmary, *vice* J. J. Lloyd, L.R.C.P., resigned.

Elphinstone, Robert, M.R.C.S., L.R.C.P., and L.S.A.—Medical Officer to the Silverstone District, Towcester Union, *vice* Dr. J. B. Weir, deceased.

Evans, E., B.A., Cantab.—Demonstrator in Physiology at St. Mary's Hospital Medical School, Paddington, W., *vice* Dr. Nall, resigned.

Fleck, William, M.D. and M.C. Queen's Univ. Irel.—Medical Officer to the workhouse, Wycombe Union, *vice* W. G. Hayden, resigned.

Parrott, T. G., L.R.C.P., M.R.C.S.—Resident Medical Officer and Secretary to the Bournemouth Cottage Hospital, *vice* T. Fred. Gardner, L.R.C.P., M.R.C.S., L.S.A., resigned.

Pigeon, W. H., M.A., M.B., B.C. Camb., M.R.C.S.—Resident Surgical Officer to the Royal Infirmary, Manchester, *vice* Bilton Pollard, M.D., &c., resigned.

Pullen-Burry, Henry Burry, L.R.C.P. Lond. and M.R.C.S. Eng.—Medical Officer to Milland District, Midhurst Union, *vice* Dr. T. F. Pearse, whose term has expired.

Wade, Charles, M.R.C.S. Eng. and L.S.A. Lond.—Medical Officer to the Hatfield District, Dunmow Union, *vice* Mr. C. G. Firman resigned.

Wilson, James Scott, M.D. and M.C.—Medical Officer to the Borough District, Walsall Union, *vice* Mr. T.C. Hubbard, resigned.

VACANCIES.

Asylum for Idiots, Earlswood.—Assistant Medical Officer. (*For particulars see Advertisement.*)

Basford Union.—Medical Officer to the Arnold District, in succession to Mr. R. S. Wallace, resigned. Area, 4,508 acres. Population, 5,745. Salary, £30 per annum.

Bristol General Hospital.—House Surgeon. Salary, £120 per annum, with board, washing and residence in the house. Candidates must be Members of the College of Surgeons of London, Edinburgh, Glasgow or Dublin, and also Licentiates of the Apothecaries' Company of London or Dublin, or some other recognised medical qualification and must produce testimonials of good moral character and ability and must send certificate of registration. Applications to be sent to the Secretary, on or before October 27th.

Carlisle Dispensary.—Senior House-Surgeon. Salary, £130 per annum, with apartments (not board.) Applications, stating age and qualifications, with copy of testimonials, to be sent to the Honorable Secretary, Mr. John Austell, 14, Bank Street, Carlisle, on or before October 28th.

Chichester Infirmary.—House-Surgeon and Assistant Secretary. Salary £100, with board, washing, and lodging. Applications, with testimonials, to be sent to the Chairman of the Committee, on or before October 25th.

Dental Hospital of London, &c., Leicester Square.—Lecturer on Dental Surgery and Pathology. (*For particulars see Advertisement.*)

East Ward Union.—Medical Officer. (*For particulars see Advertisement.*)

Great Northern Central Hospital, Caledonian Road, London, N.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

Hospital for Consumption and Diseases of the Chest, Brompton.—Surgeon. (*For particulars see Advertisement.*)

Kidderminster Union.—Medical Officer to the Kidderminster District, in the room of Mr. William Roden, deceased. Area, 9,679 acres. Population, 11,569. Salary, £165 per annum.

Manchester Royal Infirmary.—Resident Medical Officer. (*For particulars see Advertisement.*)

North Riding Infirmary, Middlesbrough-on-Tees.—House Surgeon. Salary, £100 a year, with lodging, board and washing. Candidates must be possessed of a Medical and Surgical qualification, recognised by the General Medical Council, and be unmarried. Applications to be sent to Angus Macpherson, Secretary, up to November 3rd.

Royal Free Hospital, Gray's Inn Road.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

Swansea Hospital.—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, &c. Candidates must be registered in Medicine and Surgery. Applications and testimonials to be sent to the Secretary, on or before October 28th.

Whitby Union.—Medical Officer to the East District and the Workhouse, in succession to Mr. John Taylerson, deceased. Area, 9,901 acres. Population, 5,921. Salary, £25 per annum. Salary for the Workhouse, £25 per annum.

DEATHS.

Barham, C., M.D. Cantab., at Truro, on October 20th, aged 80.

Chavasse, T., F.R.C.S., at Wylde Green House, Wylde Green, near Birmingham, on October 19th, aged 84.

Mercer, A. R., M.R.C.S., at Equira, West Coast Africa, on September 15th, aged 38.

RABBETH, SAMUEL, M.B. Lond., M.R.C.S., &c., at the Royal Free Hospital, Gray's Inn Road, on October 20th, aged 26.
SCOTT, A. J., M.D., late Madras Medical Service, at St. Leonards-on-Sea, on October 21st, aged 67.
WORRALL, J. C., M.R.C.S., L.S.A., of Overndale House, near Bristol, on October 11th, aged 79.

NOTES, QUERIES, AND REPLIES.

LONDON DOUBLE QUALIFICATION.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—At the various meetings for the discussion of the above, I do not remember having noticed any suggestion for the advantage of the practitioner holding the single Licence.

It would be a wise and considerate act to allow the insertion of a clause in the new regulations, by which the holder of one or other of the Licences, viz.: M.R.C.S. Lond., or L.R.C.P. Lond., may obtain the second, simply on presentation of his qualification, and the payment of the requisite fee, and devoid of *any examination.* That act could extend to all registered up to the date of the union of the two Colleges; but any person qualifying after that period would be required to go through the regular course. Some of the older hands of the profession may be disposed to regard that as too great and an unjust concession. But on second consideration, I think they will, with me, perceive that no injustice would result. The College of Physicians confers a Double Diploma, or rather has only done so for some years by the interpretation of the word *Physic*, as implying Medicine, Surgery, and Midwifery. That privilege is based on what may vulgarly be called a "Fluke." The College of Surgeons require that its candidates shall show that a fair Medical education has been received, by the fact of its demanding attendance, and requiring the signing of certificates on the various branches of Medical study. Though many have the Diploma of Surgeon, for the most part they are practising as Physicians, and in many cases are by no means undistiuguished men in that special department, or even in that of Obstetrics. They are practitioners of Medicine, Surgery, and Obstetrics, and neither one College nor the other can draw the line of where one special branch can begin, or another terminate. Again, as another reason, I am given to understand that in your country (I am writiug as a foreigner), about the year 1815, any Chemist, Druggist, Quack Doctor, Herbalist, Blockman, who dabbled with Physic or Broken Bones (mark you, Sir, the men without any education whatever, either in General Literature, or in Medicine!) were allowed, on payment of a fee, to be registered as competent to practise Physic, Surgery, Obstetrics, and Pharmacy; not only to practise them in a general way, but to be able to appear in any Court of Law to give evidence, and also to demand payment for professional services as "Doctors," to hold Civil and Military appointments. Now compare the admission of that vulgar rabble, the οι πολλοι, to the full privilege. Surely, if the law then could admit such, should it not be more willing, at the present day of advanced education and liberal views, to allow the giving of the Physician's Diploma to the Surgeon, and *vice versâ?* In fact, confer a period of grace, and let old Medical bygones be erased, and let the year of 1884 be as a new era in Medical history.

I commend these remarks for the consideration of the Heads of the Profession. At the same time I would offer auother suggestion, the subject of which you touched upon in your last issue. The London University M.D. is all well and good in its way; let those who aspire to its title seek it, but for my part I think it is too severe—and there is no special marketable value to be placed on its paper. For the extra study no extra remuneration can be received; in fact, as the bulk of its graduates are stuffed with theory, they are for a long time after passing very incompetent men at the routine of general practice; and they are not unfrequently corrected in Physic by men holding the Diploma of M.R.C.S. I do not make this remark in an enviable and unbecoming spirit, simply because I am not a M.D. (London), or likely to possess that honour. I make the remark as based on actual facts that have been placed before my notice. But to revert to the original subject. First let the Double Diploma be so worded as to include Medicine, Surgery, Obstetrics, and *Pharmacy.* It is necessary that the word Pharmacy be included, thus giving the general practitioner power to dispense his own drugs, charge for them, and, where nccessary, enforce payment. I do not mean to imply that he shall on the strength of that Diploma be able to open a Drug Store—for that is somewhat derogatory to the calling of the Physician, and should be handed over to the regular Druggist.

If that word be left out, all general practitioners will then be only partially qualified, and be obliged to fly to the Apothecarics' Hall for an extra certificate; and Medical matters will be in as great a confused state as before. The Archbishop of Canterbury has now the power of granting the M.D. (Lambeth), in his hands it is neither of use nor ornament. Let him hand over that power to the College of Physic and Surgery; and they could grant the M.D. after a course of *five* years' study, *i.e.*, an extra year beyond that required for the Licence. It would be regarded as a higher degree, and obtained after examination in special branches, viz., Operative Surgery, Lunacy, Ophthalmology, Laryngology, Dermatology, &c.

I am vain enough to believe I have put the whole matter clearly and in the compass of a nut-shell; and that by following the above course, Medical Qualification will be arranged on a satisfactory basis. I trust you will pardon my having made so great a demand on your space.

I am, Sir, yours &c.,
M.D. (of the University of the State of Vermont, U.S.A.)

Collegiate Examinations.—At the Primary or Anatomical and Physiological examinations for the Diploma of the Royal College of Surgeons, which were brought to a close on the 18th instant, 136 candidates were examined, against 94 at the corresponding period of last year; 64, having failed to acquit themselves to the satisfactiou of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, and six for six months.

At the "Pass," or Surgical and Medical examination for the Diploma of Member of the College, which was commenced on the 17th instant, 125 candidates presented themselves, as against 129 at the correspondiug period of last year.

The following were the questions on *Surgical Anatomy* and the *Principles and Practice of Surgery*, submitted to the candidates, on Friday the 17th instant, when they were required to answer at least four, including one of the first two, out of the six questions, between 1.30 and 4.30 p.m., viz.: — 1. Describe the relations and attachments of the Palmar Fascia and the sheaths of the Flexor Tendons. What is their Surgical Importauce? 2. Give the Anatomy of the Brachial Artery. Describe the operation of tying it in the middle of its course. Mention the anastomoses by which the blood-supply of the Forearm is carried on. 3. What are the Pathological Conditions which may occasion the presence of Blood in the Uriue? How can these be clinically distiuguished? 4. Give the immediate and remotc symptoms of a Punctured Wound of the Knee-Joiut, with the appropriate treatment. 5. Give the causes, course, and usual termination of Seuile Gangrene. How would you treat it? 6. Define the terms Presbyopia, Hypermetropia, and Myopia. Give the diagnosis of these conditions, and their correction by glasses.

On the following day, the 18th instant, the following were the questions on *Midwifery* and the *Diseases of Women*, when candidates were required to answer three out of the four questions between 12.30 and 2 o'clock p.m., viz.:—1. What are the causes of Presentation of the Funis? How would you treat this complication? 2. You are called to a patient who believes herself pregnant, and whose abdomen is greatly distended, and fluctuates freely. To what morbid states may these physical signs be due, and how would you distinguish between them? 3. Mentlon the common causes of Abortion? How would you endeavour to prevent its occurrence? 4. What injuries to the External Genitals are apt to occur in Parturition? To what consequences may they give rise? How would you try to prevent them? How would you treat them?

To those candidates who had not previously passed any recognised medical examination, the following were the questions on the *Principles and Practice of Medicine*, when they were required to answer three out of the four questions, including No. 4, between 2.30 and 4.30 p.m., viz.:—1. Discuss the causes, symptoms, and cousequences of the differeut forms of Œsophageal Obstruction. 2. Describe an attack of Gout, and discuss the pathology of the disease, and the morbid states of internal organs and tissues occurring in it. 3. Give a cliuical account of Purpura, and discuss the causes of death in that disease. 4. What are the actions, therapeutical uses, and doses of the following preparations: — Nitro-Muriatic Acid; Tannic Acid; Bicarbonate of Potash; Bromide of Potassium; Sulphate of Zinc; Liquor Arsenicalis; Extract of Indian Hemp; Tincture of Belladonna; Elaterium; and Wine of Aloes?

The names of the successful candidates are published iu another page of the *Medical Times and Gazette.*

Hard upon Doctors.—In "defiuitions of the height of meanness" our contemporary, *Truth*, gives some funny illustrations, as "gettiug advice and medicine gratis from a friendly doctor and asking him to buy back his own bottles"—"To recover from a dangerous illness and fail to pay the dobtor's bill"—"A lady after being attended and physicked gratuitously by a medical man, because her husband was a clergyman, sending the doctor's own bottles back to his surgery to be sold."

COMMUNICATIONS RECEIVED—

Sir SPENCER WELLS, Bart., Lond.; Dr. J. RUSSELL REYNOLDS, F.R.S., London; Dr. SAUNDBY, Birmiugham; Dr. BURNEY YEO, London; Dr. NORMAN CHEVERS, Londou; Dr. CLIFFORD BEALE, London; Dr. OCTAVIUS STURGES, London; Mr. G. S. LAURIE, Richmond; Mr. H. W. TOWSE, London; THE SEC. OF THE LOCAL GOVERNMENT BOARD, London; Dr. BARRETT ROUÉ, Clifton; Dr. E. SHUTTLEWORTH, Laucaster; THE SEC. OF THE APOTHECARIES' SOCIETY, London; Dr. L. ARMSTRONG, Newcastle; Mr. BACOT, Seaton, Devon; Dr. CHAMPNEYS, London; Messrs. BONING and SMALL, Londou; THE SEC. OF THE NATIONAL HEALTH SOCIETY, Londou; OUR VIENNA CORRESPONDENT; Dr. DE HAVILLAND HALL, London; Dr. L. RUSSELL, New Brighton; THE REGISTRAR-GENERAL, Edinburgh; THE EDITOR OF SOCIETY, London; Dr. J. CURNOW, Loudon; THE REGISTRAR-GENERAL, London; Mr. G. P. FIELD, London; THE DEAN OF THE MEDICAL SCHOOL OF MIDDLESEX HOSPITAL, London; Dr. N. WATSON, Manchester;

THE SECRETARY OF THE MEDICAL SOCIETY, London; THE EDITOR OF THE JOURNAL OF COMMERCE, Liverpool; Dr. WM. HITCHMAN, Liverpool; Dr. T. ORME DUDFIELD, London; THE HON. SECRETARY OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY, London; THE DIRECTORS OF THE MEDICAL SUPPLEMENTAL FUND, London; Dr. WOLFENDEN, London; OUR DUBLIN CORRESPONDENT; Dr. H. DONKIN, London; THE SECRETARY OF UNIVERSITY COLLEGE, London; THE HON. SECRETARY OF THE PARKES MUSEUM, London; THE SECRETARY OF THE BIRMINGHAM AND MIDLAND EYE HOSPITAL, Birmingham; THE SECRETARY OF THE MEDICAL LIFE ASSURANCE SOCIETY, London; Dr. FREDK. TAYLOR, London; THE SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE DEAN OF THE MEDICAL DEPARTMENT OF KING'S COLLEGE, London; Dr. HEBB, London.

BOOKS RECEIVED—

Transactions of the Medical and Chirurgical Faculty of the State of Maryland—Allen's Human Anatomy, Section VI.—Smithsonian Report, 1882—Report on the Health, &c. of Kensington for the four weeks, September 7th to October 4th—American Legislation for the Inebriate, by A. Oakey Hall—Report on the Berkshire combiued Sanitary Districts—The Science and Practice of Midwifery, by W. S. Playfair, M.D., F.R.C.P.—Vital Statistics of Queensland for 1883.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médicale—The Australian Medical Gazette—The Western Medical Reporter—The Journal of the British Dental Association—The Manchester Guardian—Revue de Médicine—Revue de Chirurgie—The Medical World—The Canada Lancet—The Westminster Review—The Canadian Practitioner—Student's Journal and Hospital Gazette—Journal of Cutaneous and Venereal Diseases.

APPOINTMENTS FOR THE WEEK.

Friday, October 24 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY OF LONDON.—The following Papers will be read:—Mr. Golding-Bird, "A Case of Dislocation of the Patella;" Dr. James Anderson, "A Case of Myxœdema;" Dr. Carrington, "A Case of Eruption, probably due to Bromism;" Mr. Godlee, "A Case of Nephrectomy for Tumour in an Infant."

QUEKETT MICROSCOPICAL CLUB, UNIVERSITY COLLEGE, GOWER STREET, 8 p.m.—Ordinary Meeting. Dr. W. B. Carpenter, C.B., F.R.S. (President), on "The Relations of the Various Types of the Genus Orbitolites."

Saturday, October 25.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; Loudon, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Ceutral London Ophthalmic, 2 p.m.

Monday, October 27.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON.—Mr. Spencer Watson, on "Hypertrophic Rhinitis;" Dr. J. Kingston Fowler, on "Functional and False Cardiac Murmurs;" Dr. J. Braxton Hicks will show a Machine for "Dry Air Disinfection."

Tuesday, October 28.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 p.m.—Mr. William Adams, "Excision of the Head of the Femur in a case of Unreduced Spontaneous Dorsal Dislocation, occurring during Fever;" Dr. Walter Edmunds, "A Case of Cirsoid Aneurism, on the Dorsum of the Foot, with remarks."

Wednesday, October 29.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, October 30.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

SUMMARY OF CONTENTS, OCTOBER 18.

MEDICAL TIMES

AND GAZETTE.

No. 1792. LONDON, SATURDAY, NOVEMBER 1, 1884.

Contents.

CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

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

Physician to the Hospital.

Lecture IV.

Catarrhal conditions of the Respiratory Passages.—Chronic Bronchial Catarrh.

Gentlemen,—There is perhaps no disease which you will be called upon more frequently to treat in this country than *Chronic Bronchial Catarrh.*

Our insular, humid, changeable climate is especially favourable to the maintenance of catarrhal conditions of the air passages when once they are established.

The chronic form of bronchial catarrh is often the result of repeated *acute* attacks, or it is due to continued exposure to unfavourable meteorological conditions. It is often secondary to other diseases—to typhoid fever, to heart disease, to phthisis. It is sometimes caused by occupations which entail exposure to irritating dusts or gases. It is frequently associated with pulmonary emphysema, in the production of which it plays a predominant *rôle*. It is often encountered in connection with the gouty diathesis, as well as in association with rheumatism, scrofula, and syphilis.

It is met with at all ages, and is most troublesome to deal with, and most dangerous at the two extremes of infancy and old age.

It is sometimes comparatively slight, recurring regularly in severe weather in the form of what we call a chronic *winter* cough.

There is what is termed the "dry" form, the *catarrhe sec* of French authors, characterised by violent irritative cough, and scanty, tenacious expectoration difficult of expulsion. This is regarded by some as a "gouty" form.

There is also the more common form, attended by abundant muco-purulent secretion from the bronchial mucous membrane, the "*catarrhe pituiteux*" of the French; the "bronchorrhœa" of other writers.

Occasionally this chronic form of bronchial catarrh is accompanied by structural changes in the walls of the bronchi, leading to dilatation of those tubes, and to the formation of the so-called bronchiectatic cavities.

The stagnation and decomposition of bronchial secretions in these cavities may impart an offensive odour to the breath and to the sputa, or this may also arise from putrid ulceration of the bronchial mucous membrane, and thus we get what is termed *bronchitis putrida*, or fœtid bronchitis.

I need scarcely enumerate the familiar symptoms, and physical signs of this very common malady; the

cough more or less severe, the expectoration more or less abundant, the dyspnœa more or less grave, according to the extent of the diffusion of the disease or the presence of complications; the combination of good, often exaggerated, percussion resonance with diffused harsh respiration, and various sonorous *râles*, rhonchal and sibilant, crepitating and humid, or musical and dry, while gurgling *râles* are heard over the bronchial dilatations.

The indications for treatment will vary with the nature of the case.

It is, in the first instance, important to remove all source of injury or irritation to the bronchial mucous membrane, in which the disease may have originated, or which may favour its continuance.

If it is dependent on occupation, change it! If on climate, let your patient seek a better one! Is it dependent upon the existence of some other disease or constitutional state, as heart disease, syphilis, scrofula, gout, &c., then our remedies must be selected with due regard to the original disorder.

There are other indications for treatment which may be deduced from the symptoms of the disease itself. These are:—

(1) To modify the morbid secreting action of the bronchial mucous membrane.
(2) To promote the expulsion of the morbid secretions which tend to accumulate in the air tubes.
(3) To calm irritative cough.
(4) To give tone to the enfeebled bronchial walls.
(5) In fœtid bronchitis, to suppress the putrid decomposition of the bronchial secretions.

The foregoing are the chief indications for the rational treatment of cases of chronic bronchial catarrh.

Now, in the first place, let us consider the treatment of that distressing form of chronic bronchial catarrh which has been termed by French physicians the *catarrhe sec*, or "dry catarrh." In cases of this kind we meet with severe paroxysms of cough, attended by very scanty secretion, which is tenacious and sticky, and difficult of expulsion. The seat of this form of catarrh is in the smaller bronchi, and it is not unfrequently found associated with the gouty constitution. These cases are greatly benefited by the free administration of warm alkaline drinks, and the inhalation of hot saline alkaline sprays, or the steam of hot water.

The mineral waters of Ems, Apollinaris, Bourboule, and Selters are excellent for this purpose. They may be given by the mouth, drunk warm or mixed with a small quantity of hot milk or whey; or they may be inhaled directly into the air passages by means of a Siegle's steam spray producer.

Four to six ounces of Ems or Apollinaris water, with two ounces of hot milk or whey should be taken four or five times a day and the hot spray of these waters inhaled twice a day or oftener.

If the Bourboule water is used, it must be given in smaller quantity on account of the arsenic it contains, only two to three ounces three times a day.

If these mineral waters are not available, we shall find a very good substitute in a mixture containing carbonate of soda and chloride of ammonium or sodium, and with this mixture we may often advantageously combine some pills containing tartarised antimony (or ipecacuanha) and morphine, the latter for the purpose of allaying the irritative, hyperæsthetic condition of the bronchial surface, the former to increase the amount and fluidity of the bronchial secretion, and so facilitate its expulsion.

The following prescription is a useful one:—

℞ Sodæ Bi-carbonatis, gr. lx.
Ammonii (v. Sodii) Chloridi, gr. xxx.
Succus Conii, ʒ ij.
Spiritus Chloroformi, ℥ cxx.
Aquæ ad ℥ vj.

M. ft. Mist.

Two tablespoonfuls, with two of hot water, every four to six hours.

℞ Antimonii Tartarati, gr. $\frac{1}{6}$.
(v. Pulveris Ipecacuanhæ, gr. i.)
Morphiæ Acetatis, gr. $\frac{1}{4}$.
Extracti Hyoscyami, gr. ij.

M. ft. pil.

To be taken every night at bedtime.

In the gouty this treatment should be combined with a saline alkaline aperient draught every morning, and nothing answers better than one or two teaspoonfuls of Carlsbad salts in a tumblerful of hot water. I must not omit to mention iodide of potassium as a most valuable remedy in certain obstinate forms of chronic bronchitis in constitutions which are presumed to be gouty. I say presumed to be gouty, for I must candidly admit that I have seen iodide of potassium of great use in cases of chronic bronchial catarrh where I should have been puzzled to give any other proof of the existence of a gouty constitution.

The cases in which iodide of potassium proves of so much benefit are those in which there is usually some tendency to asthma, and in which the bronchial secretion is tenacious and difficult of expulsion.

In cases of chronic bronchial catarrh with profuse secretion, the object of our treatment should be, as I have already pointed out, to modify the morbid secreting action of the bronchial mucous membrane. We have several drugs which are believed to possess this power in a greater or less degree; notably, certain "balsams" and "gum resins."

Copaiba, turpentine, tar, creosote, the balsams of Peru and of Tolu, ammoniacum, are members of this group of remedies.

Some of these drugs contain substances which, when taken into the blood, are eliminated by the bronchial mucous membrane. This is well known to be the case with copaiba, one of the most volatile constituents of which is eliminated in this way, and may thus exercise a direct local influence over the existing morbid conditions.

The objection to the use of copaiba on account of its odour and taste, and the evil reputation which attaches to it has been attempted to be overcome in various ways. In Paris it is often given combined with tar in capsules.

The following is the formula for its administration contained in the Pharmacopœia of the Brompton Hospital:—

℞ Copaibæ, ʒ ii.
Mucilaginis Acaciæ, ʒ vj.
Spiritus Chloroformi, ℥ xxx.
Aquæ Camphoræ ad ℥ vj.

M. ft. Mist.

Two tablespoonfuls three times a day.

Turpentine, like copaiba, is in part eliminated by the pulmonary surface, and like copaiba, it is often given in capsules, or what the French call "perles." It may also be prescribed in the form of confection. That of the British Pharmacopœia consists of oil of turpentine rubbed up with liquorice powder and honey. A teaspoonful of this may be given for a dose, wrapped up in wafer-paper, so that its taste is completely concealed, or the same quantity may be rubbed up with an ounce of peppermint water and taken in a fluid form.

Or it may be given as an emulsion, according to either of the following prescriptions. The first is suggested by Dr. Whitla; the second is in the Pharmacopœia of the Brompton Hospital:—

(1) ℞ Olei Terebinthinæ, ʒ ij.
Pulv. Gum. Acaciæ, ʒ ij ss.
Syrupi Aurantii, ℥ i.
Misturæ Amygdalæ ad ℥ viii.

M. ft. Mist.

Take two tablespoonfuls twice a day.

(2) ℞ Olei Terebinthinæ, ʒ ij.
Mucilaginis Acaciæ, ʒ ij.
Aquæ Cinnamomi ad ℥ vj.

M. ft. Mist.

Two tablespoonfuls for a dose.

Turpentine is also well and readily administered by inhalation. There are various means by which the air of the patient's room may be charged to any extent with the vapour of turpentine.

A teaspoonful or two of the oil of turpentine may be poured on the surface of a hot water plate previously charged with boiling water, or it may be placed on the surface of hot water and directly inhaled with the vapour of water from any suitable vessel, or cloths may be dipped in turpentine and hung about the room; or the patient may wear a light perforated zinc respirator, such as I show you, the sponge of which is charged from time to time with spirits of turpentine; this is a very convenient method of inhaling, more or less continuously, any fluid vaporisable medicament.[1]

Tar is also frequently given in the form of capsules, in the form of tar water, the popular *eau de goudron* of the French, in pills, and as an inhalation. It possesses decided virtues in the treatment of chronic bronchial catarrh. A chemist (Wheeler) at Ilfracombe has made an excellent emulsion of tar by means of the Laminaria Saccharina (Sea Belt); in this form it can be mixed with water in any proportion and taken internally or inhaled from any suitable apparatus. It is an expectorant as well as a tonic to the bronchial mucous membrane, and it has been suggested that it exerts its beneficial tonic effect on the respiratory mucous membrane in the act of its elimination, "and while stimulating the epithelial elements of the secreting surface it is probable that the cilia are also stimulated to sweep along irritating and adhesive secretions more rapidly."—(Whitla.)

Tar water can be made by stirring one part of tar with ten of water for fifteen minutes and decanting. A wineglassful may be taken several times a day.

Tar can also be made into pills either with liquorice powder or powdered gum acacia. Equal parts of tar and liquorice powder may be mixed together and made into five grain pills, two or three of which should be taken three times a day.

Tar may be inhaled in the form of spray by pulverising tar water in a Seigle's spray producer; it may also be used as a fumigation; for this purpose good ship's tar should be employed, to which ten per cent. of carbonate of soda should be added to neutralise the pyroligneous acid contained in it which might prove irritating to the respiratory passages. At first it is best to dilute the mixture with water so as to get, at the same time, the emollient action of aqueous vapour on the part affected; subsequently the amount of water may be reduced, and at last the pure tar mixture with soda may be employed; this is simply poured on to a flat dish and heated to boiling over a spirit lamp. The tar vapours are evolved in the vicinity of the patient for a quarter of an hour or more at a time once or twice a day, but it is desirable that the patient should remain all day in the room the air of which has been impregnated with tar vapour.

Much that I have said with respect to tar applies to its derivative, *creosote*. Creosote is useful both administered by the stomach and by inhalation in chronic bronchial catarrh, acting much in the same manner as tar does. It can be given in the form of capsules or "perles"; in the latter, which are prepared in France, it is dissolved in ether and enclosed in a protective covering. It is important to remember not to give these when the stomach is empty as their concentrated contents might give rise to some gastric irritation. A few tablespoonfuls of warm milk or soup should be taken at the same time. There is a creosote mixture in the British Pharmacopœia which contains one minim of creosote to the ounce; it also contains spirit of juniper to cover the unpleasant taste, glacial acetic acid and syrup. Two tablespoonfuls of this mixture can be given three times a day. Creosote can also be given in the form of pills mixed with castile soap and crumb of bread according to the formula suggested by Dr. Whitla:—

℞ Creasoti, ♏ xij.
Pulv. Saponis Castil. gr. xv.
Micæ Panis, gr. xxx.

M. et divide in pilulas xij.

One or two to be taken three times a day.

Or it may be mixed with glycerine and any agreeable tincture, with a view of covering its taste, such as the following:—

℞ Creasoti, ♏ xxxij.
Tincturæ Cardamomi Compositæ,
Glycerini, aa. ʒ j.

M. ft. Mist.

One tablespoonful in water or milk three or four times a day.

But creosote is especially useful and convenient for inhalation and it can be very readily inhaled by means of the light perforated zinc respirator I have already referred to.

If there is much bronchial irritation as well as profuse secretion, the sponge of this inhaler can be charged with equal parts of creosote and ether, or creosote and chloroform; or if a less decided sedative is required, an excellent mixture for the purpose consists of equal parts of creosote and spirits of chloroform.

If it is desirable to combine the emollient effect of the vapour of water with the creosote, the latter may be vaporised by dropping it on the surface of hot water and their vapours inhaled together.

The employment of turpentine, tar, and creosote is especially indicated in cases of profuse bronchial secretions (bronchorrhœa), especially when the sputa are offensive, owing to the existence of putrefactive processes in the air passages, and the presence of bronchiectatic cavities.

The balsams of Peru and Tolu, benzoin and storax are also given in chronic bronchial catarrh with the view of modifying the morbid secreting action of the respiratory mucous membrane. There is a well known tincture in the British Pharmacopœia containing three of these—Benzoin, Storax and Tolu; this is the *compound tincture of benzoin*, and I have often found it of great service in lessening the amount of secretion and so diminishing the cough in some cases of chronic bronchial catarrh.

It is necessary that the tincture should be ordered to be rubbed up carefully with some thick syrup or mucilage, so as to make an emulsion with the gum resins it contains, otherwise it will not mix with water. The Brompton Pharmacopœia contains the following formula:—

℞ Tincturæ Benzoini Compositæ, ʒ ij.
Tincturæ Tolutanæ, ♏ xxx.
Oxymellis Scillæ, ʒ iii.
Vini Ipecacuanhæ, ♏ xxx.
Aquæ ad ℥ vj.

M. ft. Mist.

Two tablespoonfuls three times a day.

Another gum resin of value in the treatment of the chronic bronchial catarrh of old people is ammoniacum. Its use has been unnecessarily depreciated. It is of much value as an expectorant in certain cases. Dr. Whitla very justly observes of this drug, "It will always be found beneficial in assisting the aged and emphysematous in getting up with greater ease the

[1] These respirators can be obtained at Squire's, 413, Oxford-street, for 6*d*. Wyeth Brothers, of Philadelphia, supply them in a slightly modified form.

tough viscid secretion of the chronically inflamed mucous membrane. Probably it acts by some of its constituents being excreted by the membrane depriving the secretion of its adhesiveness. Considerable experience of its effect in a large infirmary of aged invalids convinces me that in some way it greatly facilitates expectoration." It is given rubbed up with water as in the Mistura Ammoniaci of the British Pharmacopœia and is often combined with squills as in the following formula from the Brompton Pharmacopœia :—

℞ Tincturæ Camphoræ Compositæ, ℥ iii.
Oxymellis Scillæ, ℥ iii.
Misturæ Ammoniaci ad ℥ vj.
M. ft. Mist.
Two tablespoonfuls for a dose.

It is also one of the constituents of the Pilula Scillæ Composita and the Pilula Ipecacuanhæ c. Scillâ of the British Pharmacopœia ; and this leads me to say a few words on the use of squills as a stimulating expectorant in chronic bronchitis.

Squill is a useful expectorant in many cases of bronchitis, especially in those cases which are intermediate between the acute and chronic forms ; when an acute bronchitis is assuming more or less of a chronic form. It is often combined with small doses of ipecacuanha and opium, as in the *Pilula Ipecacuanhæ c. Scillâ* of the British Pharmacopœia, a very useful preparation, of which five to ten grains may be given at bedtime with much advantage in many cases of chronic bronchial catarrh.

The following formula from the Brompton Hospital Pharmacopœia is a good one in those cases intermediate between the acute and chronic forms to which I have just referred :—

℞ Tincturæ Scillæ, ℥ ij.
Tincturæ Camphoræ Comp., ℥ iii.
Spiritus Ætheris Nitrosi, ℥ iii.
Liquoris Ammoniæ Acetatis, ℥ iss.
Aquæ Camphoræ ad ℥ vj.
M. ft. Mist
Two tablespoonfuls every five or six hours.

(To be continued.)

A REMARKABLE CASE OF RENAL COMA.

By ROBERT SAUNDBY, M.D., Edin., M.R.C.P., Lond.
Assistant Physician to the General Hospital, Birmingham.

Harriet B., aged 20, was admitted into the General Hospital, on September 6, 1884, complaining of severe pain in the left hypochondrium which came on suddenly fourteen days ago, and had continued ever since. This was attended by vomiting and purging. On the night of admission there was some epistaxis, which did not recur. Ten months ago she had typhoid fever, for which she was an in-patient at the Queen's Hospital, and she states that she has never been well since. When she was 5 or 6 years of age, she had scarlatina, but can remember no other illness. On admission she appeared an anæmic girl with an anxious expression of face. She complained of lancinating pains in the region of the spleen. On examination the tenderness was too exquisite to permit of very exact exploration ; but there was evidently a resistant mass occupying the whole of the left hypochondrium. The heart, lungs and liver were apparently normal. Her tongue was moist, streaked with brown and white paste, but clean in the centre. Her bowels were relaxed, with about three motions in 24 hours. She vomited two or three times daily. Her urine amounted to about 20 ounces daily, it was albuminous, and contained a little pus, but no sugar. The needle of an aspirator passed into the swelling failed to withdraw any fluid. The day after admission the quantity of pus in the urine increased very much, so as to constitute nearly half a column of deposit in the urine glass.

September 9th, at 8 a.m., she had a convulsive attack which lasted five minutes, and she afterwards passed into a semi-comatose condition. When seen at 10.25 a.m., she was lying apparently insensible, but on being shouted to opened her eyes and turned her head. Her eyelids were partially open ; there were sordes on the teeth and lips. Her pupils did not react to light, but the conjunctivæ were sensitive to touch. Pulse 120. Respirations 24, *deep and sighing.* On auscultation air could be heard entering freely into the thorax. The nurse said that just before the convulsions she complained of *pain in the stomach.* 4 p.m —Pulse 132. Respirations 28. Respiration noisy ; slightly delirious, crying out occasionally. At 6.30 p.m., Dr. Morrison saw her, at the request of the House Physician's Assistant, with the idea of performing venesection. He found her with sighing respiration, pulse small and scarcely perceptible. Every now and then she moaned "Let me die." Temperature 97°. At 6.45 p.m. she was pulseless, and apparently *in articulo mortis.* A vein at the bend of the right elbow was opened and 24 ounces of a solution of sulphate of soda in distilled water injected. The fluid was neutral, sp. gr. 1018, at a temperature of about 100° F. The apparatus consisted of a glass funnel connected with a fine pointed pipette by rubber tubing. This was first filled with fluid, and the pipette was then inserted into the vein and the funnel raised. By this means a steady flow into the venous system took place. Within a few minutes the pulse returned at the wrist and the breathing became deeper. After 24 ounces were injected, the fluid in the end of the pipette was reddened from the blood and fluid mingling ; the flow was then stopped and the arm bound up. The patient revived, became conscious and spoke ; said she was thirsty and drank some milk. Temperature 98·6°. At 7·45 p.m. about a drachm of foul urinous pus was drawn off by the catheter. She died at 10.25 p.m., about fourteen hours after the convulsion.

During the last 36 hours of her life her temperature was taken every hour. Before the convulsive attack it ranged between 98° and 99·5°. At the time of the attack it was 98·5°, and then rose steadily, till at 10 a.m. it had reached 100 6°, falling again by 12 to 98°, and as mentioned above, when Dr. Morrison saw her at half-past six the temperature was only 97°. After the operation it rose to 98·6, and this was maintained at the last recorded time, 9 p.m. This rise of temperature after the convulsive attack is usually observed in uræmia.

At noon on the day of her death, as she had passed no urine since the night, a catheter was introduced into the bladder and about six ounces were drawn off. It was examined the following day by myself. My note taken at the time says : Colour reddish brown, putrid, alkaline, deposits one third column of pus ; sp. gr. 1011. *Gives a deep brown colour with ferric chloride* not diminished by heating.[1] Albumen about one-third column. No sugar. Deposit under the microscope consisted of

[1] Since writing this paper, I have read the article by le Nobel, in the June number of the *Archiv für Experimentelle Pathologie,* in which he says that acetic, formic, and sulpho-cyanogen compounds, any of which may occur in the urine, give a red coloration with ferric chloride, indistinguishable from the re-action with aceto-acetic acid, except by its non-disappearance on heating. This statement affords a reasonable explanation of the re-action met with in the urine of my patient, which I was quite unable to ascribe to the accidental presence of salicylic or carbolic acid, while its non-disappearance on heating threw doubt on the presence of aceto-acetic acid.

granular cells, squamous and pyriform epithelium, bacteria and blood corpuscles.

On the following day a careful *post-mortem* examination was made by Mr. C. E. Purslow, who has kindly favoured me with the following notes :—

External appearances.—The body was that of a young woman. *Post-mortem* rigidity was well marked in the lower extremities. There was a small incision in the fold of the left elbow, and the mark of a puncture in the left lumbar region. *Head.*—There was a slight increase of the sub-arachnoid fluid, but otherwise the cranial contents were normal. *Thorax.*—The *heart* weighed 9½ ozs. The left ventricle was slightly hypertrophied. Both *lungs* were congested and œdematous, and the lung tissue was friable. The *blood* was very watery with no disposition to clot. (The result of the intra-venous injection resorted to just before death.) *Abdomen.*—The *liver* weighed 43 ozs., and appeared normal. The *spleen* weighed 6½ oz., but was otherwise normal. The *stomach* showed signs of chronic catarrh. The right *kidney* weighed 1¼ ozs. only ; its ureter was patent ; its pelvis was dilated and contained a calculus the size of a pea. The medullary and cortical substances were indistinguishable and together measured only a quarter of an inch in breadth. The capsule stripped off readily. In the left hypochondrium there was a large mass, on the upper surface of which, and adherent to it, were the duodenum, pancreas, and descending colon. The surface of the mass was purple coloured, and the colon over it also appeared to have blood extravasated under its mesentery and peritonæal investment. On removing the entire mass it weighed 38 ozs. At the upper part there was a cavity the size of an orange containing purulent fluid, which was accidentally ruptured. On section it was composed of an external cyst wall within which was a mass of recent blood clot ; inside this was the left kidney in a condition of saccular dilatation. All normal kidney structure was absent. The pelvis contained an irregularly shaped calculus the size of a bean, and another smaller calculus lay in one of the saccules. The *ureter* was dilated but patent. The *bladder* was not enlarged, or its walls hypertrophied. Its mucous membrane was dark coloured and presented several wart-like outgrowths about one line in height with rounded surfaces. The *uterus* and *ovaries* were quite normal.

This very interesting case suggests many points of enquiry, but I desire specially to draw attention to the pathology of the terminal phenomena.

How long this poor girl had managed to maintain life with such poor apologies for kidneys as the *post-mortem* examination disclosed must remain unknown to us, though it is certain that the process had been a chronic one, and it is probable that her acute symptoms dated from the occurrence of the hæmorrhage into the wall of the sac.

It is most probable that the disease in the kidneys was set up by the irritation of small calculi which in the right side remained in the pelvis and led to atrophy of the organ, while on the left side an obstruction occurred in the lower part of the ureter, which had ceased before death, and was probably never complete.

The peculiar interest which attaches to this case is that it presented striking analogies to that form of coma which Kussmaul described as occurring in diabetes and which goes by his name.

The characteristic symptom of Kussmaul's coma is dyspnœa with free respiratory movements and unobstructed air passages.

It was this phenomenon that arrested Kussmaul's attention, and which has since been accepted by Senator as a typical symptom. The other symptoms are rapid feeble pulse, epigastric pain, excitement, followed by coma. In a certain number of cases the breath has a peculiar odour, variously described as like apples, hay, sour beer, acetone, &c., but this is by no means constant. And lastly, a symptom to which much attention was at one time paid, though lately it has fallen into disfavour, the peculiar reddish brown, or Burgundy red reaction of the urine with the perchloride of iron. Convulsions have been noted in a few cases, but they have been exceptional. The temperature is normal or sub-normal.

It is pretty well known that Kussmaul attributed these phenomena to intoxication by acetone, and for a time the reaction of the urine with ferric chloride was held to indicate the presence of this substance, but chemical investigations have hitherto failed to afford evidence of the presence of acetone in either the blood or urine in more than faint traces and exceptionally, but the substance which gives the peculiar reaction is now pretty generally admitted to be aceto-acetic acid.[2] Salomon has failed to find acetone in the expired air of diabetics with the characteristic odorous breath.

Furthermore, in a large number of experiments undertaken on animals and men, including persons suffering from diabetes, large doses of acetone and aceto-acetic acid have failed to produce any of the characteristic phenomena of this form of coma, although more recently Professor Penzoldt, of Erlangen, found that by retarding excretion through the lungs, intoxication, hebetude, and coma followed[3] the introduction of large quantities of acetone into the circulation of rabbits, and he contends that when the lungs are disabled by any cause these results will follow.

With reference to Professor Penzoldt's suggestion, I may refer to the observation of Dr. S. Mackenzie, who found that pulmonary disease was absent, or only recent and slight, in fourteen out of nineteen cases of diabetic coma, while at Guy's Hospital, fourteen out of twenty-six cases of coma presented no visceral lesions whatever, and several cases dying with phthisis or pneumonia presented no coma.[4]

But returning to our case, we must not lose sight of the very prominent fact that we had present in it very serious visceral lesions, amounting to the almost entire destruction of the kidneys. The small quantity of urine, and its low specific gravity, even in the absence of an exact analysis, enables us to be certain that the urinary solids excreted were far below the normal and necessary quantity.

It would therefore seem at first sight as if our enquiry was very simple, and that the case might be described as one of uræmia. If a name was all that we required, that would do as well as another. But what do we mean by uræmia ?

Confining our attention to cases in which the urinary excretion is obviously at fault, two very distinct types of toxic disturbance may be recognised. In the first the patient has a moist tongue, headache, loss of vision, vomiting, or diarrhœa, convulsions, and coma. This is the classical type of uræmia associated with Bright's disease. In the second the patient is in a typhoid condition, with dry tongue and a feeble pulse, but his intelligence and special senses are normal, and there may be neither convulsions nor coma, and yet such a patient may not excrete by the urinary passages a single drop of urine for days or even weeks. Such

[2] Aceto-acetic acid = acetone and carbonic acid. This re-action has been frequently found in the urine of non-diabetics, who presented no comatose phenomena.

[3] Deutsches Arch. f. Klin. Med., vol. xxxiv., p. 127.

[4] As there was no excess of fat in the blood, I have not referred to the fat embolism theory of Sanders and Hamilton (*Edinburgh Med. Journ.*, 1879), but I have elsewhere shown (*Journ. of Anat.*, July, 1882) that even when present it is doubtful if it is capable of causing any of these phenomena. It is curious that this explanation (fat embolism) was discussed and rejected by Kussmaul in his original paper published in 1874. A recent writer (Minkowski) has suggested oxybutyric acid as the toxic agent, but this contribution is too recent to be discussed here.

*

symptoms are met with in cases of obstructive suppression of urine.

It is very hard to explain these differences on the assumption that the simple retention of urine in the blood is the cause of either of them.

When we go a step further and enquire into the various theories that have been propounded to explain these phenomena, we find our difficulties increase.

These theories may be divided into two groups: (*a*) Mechanical (*b*) Chemical. In the first group, Owen Rees, Traube, and Rilliet have attributed the nervous phenomena to œdema of the brain, but this view has failed to meet with acceptance for the brain may be very œdematous without causing convulsions. The œdema observed so invariably by Traube is probably the consequence rather than the cause of the convulsions. This led to the theory of Rosenstein, who supplemented Traube's hypothesis by imagining that the initial change was a vaso-motor constriction of the cerebral blood vessels, leading to convulsions by cutting off the blood supply, and followed by exudation of serum into the lymph spaces of the brain. But plainly such an hypothesis needs supplementing by the assumption of the presence of some toxic agent capable of stimulating the vaso-motor centre, and this leads us to those chemical theories which have attracted most attention in later years.

The chief chemical theories are :—(1) That it is due to urea in the blood, hence the name uræmia, originally given to it by Piorry, and which was supported by Christison. This theory is the one which, in spite of opposition, has managed to hold its ground; although numerous experimenters have failed to produce any toxic phenomena by the injection of urea into the blood of animals or by making them ingest quantities of urea with their food.

(2) The theory of Frerichs and Treitz, that the urea is converted into carbonate of ammonia in the intestine which is re-absorbed into the blood. With reference to both these theories Dr. Roberts, in the last edition of his work on urinary and renal diseases, says (p. 433): "The recent experiments of Oppler, Schottin, Perls, and Zalewsky seem to have given the *coup de grace* both to the ammonia and to the urea theories of uræmia." (3) It has been suggested by M. Gautier that ptomaines may play some part in the phenomena of uræmia, but this remains at present a barren hypothesis. (4) Voit, Feltz and Ritter, and Astaschewsky, have proved by a number of careful experiments that the potassium salts of the urine alone are capable, when re-introduced into the circulation, of producing phenomena resembling those of so-called uræmia. This conclusion, while apparently supported by good experimental evidence, is so much opposed to the preconceived opinions of the profession that it has made but little way.

The conflict of experimental evidence is unfortunately so frequently the result of that method of investigation, that I have come reluctantly to the opinion that it justifies the condemnation of it expressed by Bartels. Speaking of this very question of uræmia, he says :—

"One of the chief reasons why we are compelled, even at the present day, to confess our inability to solve this question, lies, as I believe, in the circumstance that our attention has been chiefly devoted to experiments upon animals—a useful enough adjunct in research—while the prime source of our knowledge, clinical observation, has been all too little tapped."[5]

Professor Gamgee[6] thinks that uræmic phenomena depend upon many factors. The blood is rich in water, poor in albumen and corpuscles, and contains, besides urea and uric acid, "an excess of other proximate principles which may exert a specially poisonous action."

Vulpian[7] and Bouchard[8] regard the clogging of the tissues with non-eliminated waste products, and the consequent impairment of nutrition as the real cause. Voit says, "Symptoms of disease originate wherever any substance which does not belong to the economy accumulates within the body, and is not eliminated from it," and he proceeds to explain that it is not any particular substance which does harm when the urinary secretion is suppressed, but the total mass, any extraneous salt, such as sulphate of soda, being equally deleterious under similar circumstances. The toxic effects are the result of the interference with the normal exchanges which take place between the blood and the tissues, and upon which the vital phenomena of the latter depend.

We should not fail to notice that the broad clinical distinctions already pointed out, which are presented by cases identical so far that in both instances the urinary excretion is diminished or abolished, have received no elucidation, and, in fact, do not seem to have attracted the attention of these enquirers.

But these types are associated with fundamental pathological divergences. In the first type, the classical uræmia, the kidney is the organ primarily at fault. It is this type which we see in scarlatinal nephritis, and especially in the later stages of the contracting kidney. On the other hand, the second type is that met with in bladder diseases, and in suppression of urine by the impaction of calculi in the ureters.

It is difficult, nay impossible, to understand, why sudden suppression of urine or the nephritis of scarlatina should be followed by an attack of convulsions, while suppression by a calculus gives rise to no nervous phenomena; and the remarkable and well authenticated cases of hysterical suppression of urine without any uræmic phenomena at all make the problem still more obscure.

The case I have related differs essentially from the classical type of uræmic coma in important details. As already mentioned, it corresponds more nearly with that observed by Kussmaul in diabetes. I am not sure that there is anything very novel in this observation, as I find that Dr. Roberts gives "slow panting and laborious breathing" among the symptoms of obstructive suppression of urine.[9] But of late years so much prominence has been given to it in connection with those sudden deaths from diabetes which have been recorded by Dr. Foster and others that we have been in some danger of regarding it as specially associated with diabetes. On the Continent several writers have alluded to its occurrence in other diseases.

Reiss[10] has met with it in 8 cases of pure anæmia, 5 cases of anæmia with renal disease, and 4 cases of gastric and hepatic cancer. In none of these cases was sugar present.

Senator[11] has also observed it in chronic cystitis, gastric cancer, anæmia and atropine poisoning.

Were there any features by which this case might be distinguished from Kussmaul's coma? In the latter condition convulsions are rare, but yet they do occur; the temperature is normal or subnormal, but so it is in uræmia, except after a convulsive attack, and, so far, I am not aware that any observations have been made on the temperature under similar circumstances in diabetic coma. Lastly, the red colouration with ferric chloride did not disappear or diminish on heating.

[5] Bartels. Ziemssen's Cyclop., vol. xv., p. 128. Eng. Trans.
[6] Phys. Chem., vol. i., p. 173.
[7] Hutinel. Thèse de Paris, 1880, p. 88.
[8] Soc. Med. des Hôp., 1879.
[9] Op. cit., p. 29.
[10] Zeitschr. f. Klin. Med., vol. vii., Supp. Heft, p. 34.
[11] Ibid, vol. vii., Heft. 3.

This is held to distinguish the reaction from that produced by salicylic or carbolic acid in the urine, but neither of these drugs was being used in any way about the patient, and it is inconceivable that either could have been present in the urine.

We must therefore no longer regard this type of breathing as peculiar to the coma of diabetes, but as a phenomenon which may occur in connection with the terminal coma of a variety of conditions, of which the only connecting link is that there is profound disturbance of the nutrition of the tissues.

No one can be surprised at the fatal result in this case. But even when *post-mortem* examination has failed to show such serious organic disease, the result in presence of this form of coma has been equally fatal. Frcrichs regards all therapeutic measures hitherto suggested as useless. Injections of ether, camphor, and similar stimulants have been tried without effect. Dr. B. W. Foster has suggested the use of thymol to arrest the action of any fermcnt which might be giving rise to fermentations productive of toxic substances. I do not know that this has been tried. Usually the cases run too rapid a course for such a remedy to have an adequate chance. But it is certain that all these symptoms have supervened and run a fatal course in patients who were taking large doses of other antiseptics such as salicylic and carbolic acids.

Kussmaul tried transfusion of blood with only temporary results, and inhalation of oxygen was also without effect. Bence Jones employed peroxide of hydrogen and stimulants with no better result. Hilton Fagge and Taylor have injected a weak solution of phosphate of soda and sodium chloride into the veins, in one case with benefit for some hours, but after a dose of codeia the coma returned and proved fatal. In another case no result followed. Dr. Morrison was quite justified by these results in trying this plan and it seems to have been of some temporary service.

Although in the presencc of such extensive organic disease as was revealed by the *post-mortem* examination no recovery was possible, yet it is right to bear in mind that these symptoms are not necessarily fatal, instances of recovery having been recorded.[12]

SANITAS AS A DISINFECTANT.

By C. T. KINGZETT, F.I.C., F.C.S.

In your issue of the 11th inst. you publish some criticisms of Mr. A. Wynter Blyth on the exhibits of disinfectants at the Health Exhibition, and among them I find some notes relative to "Sanitas" for the knowledge and use of which re-agent I hold myself responsible. I shall be glad if you will allow me to make a few remarks upon this subject.

Mr. Blyth admits that "Sanitas" is a good antiseptic, but from certain microscopical observations made upon the spores of anthrax he adds, "I would not rely upon it in serious disinfection, that is, in cases of disease." In another place he says, "A non-poisonous disinfectant is certain to be useless as a germicide."

Now to take this last statement under consideration in the first place, I dispute its accuracy. Upon what grounds is Mr. Blyth certain? He states none, but makes the barren assertion. As grounds for disputing this statement, I may mention the following facts:—(1) Oxygen (a non-poisonous substance) acts as a germicide to all micro-organisms classified by Pasteur as anærobies. (2) Peroxide of hydrogen (a non-poisonous substance) has been proved by my own investigations[1] to act as a germicide to the micro-organisms that originate putrefaction, and my results were subsequently confirmed by Guttman and Frænkel.[2] They were also confirmed by Mr. W. M. Hamlet,[3] who observed that of all the many chemical substances he examined, peroxide of hydrogen acted most fatally to bacterial life. Further proof of the germicidal character of this substance has been given by M. Baldy, and emphatically by MM. Paul Bert and Regnard.[4] "Sanitas" in all its forms contains or yields peroxide of hydrogen. (3) Thymol can scarcely be called a poisonous substance, and it is admitted to be a powerful germicide. "Sanitas" contains thymol. (4) It does not follow that because a chemical agent is non-poisonous to man it will prove harmless to micro-organisms. There is nothing in common between the two orders.

Secondly, I cannot accept Mr. Blyth's provisional classification of disinfectants. It is sufficient, in my opinion, to call those substances, broadly, disinfectants which by their use limit in any sense the spread of disease. The precise ways in which disinfectants may act are very numerous. It is doubtful (even upon Mr. Blyth's own showing) whether any chemical substances can act as direct poisons to anthrax spores. Many substances, including Sanitas, kill off fully developed micro-organisms as they are produced.

Disinfectants, then, may act in the following ways, among others: (1) They may affect micro-organisms in the sense that anæsthetics act on man and cause death in consequence. (2) They may act as direct poisons to micro-organisms. (3) They may also lead to the death of micro-organisms indirectly in a number of ways, as, for instance, tannin does by chemical combination with albuminous principles resulting in the production of substances that micro-organisms cannot so readily, if at all, decompose. Or they may change the character of the nidus by oxidation, or chlorination, or otherwise chemically, so that it no longer serves as pabulum to the micro-organisms which then die off in consequence.

In all probability, further investigation will prove the ubiquitous character of pathogenic micro-organisms and while lending confirmation to the view even now largely entertained as to the folly of ever hoping to exterminate them by direct attack with parasiticides which kill the host also, it will accentuate the necessity of directing measures to the prevention of their development under certain conditions at present very imperfectly understood. In the meantime, just as Sir Joseph Lister has said there is no necessity to believe in the germ theory as a foundation to the practice of antiseptic surgery, the practical study of putrefaction, its causes and prevention alone sufficing, so also the same study will suffice to guide the principles of disinfection at large. All good antiseptics are necessarily good disinfectants, and all the experiments that can be devised or the arguments that may be employed will, I am confident, fail to disprove the fact. As Dr. Gamgee has expressed it,[5] "I am now convinced that every good antiseptic is really a destroyer of disease germs; an arrest of development is ensured."

I go further and say, that so far as the treatment of the human body is concerned, substances which are poisonous, or exhibit toxic effects, should never be used as antiseptics and disinfectants, for science has provided innocuous and non-poisonous substances which do all that is wanted.

[12] Quincke. Berliner Klin. Woch., 1880. No. 1. Gamgee. Op. cit., p. 170.

[1] *Chemical News*, vol. xxxiv., p. 127.
[2] *Lancet*, June 22nd, 1878.
[3] *Jour. Chem. Soc. Trans.*, 1881, p. 325
[4] *Compt. Rend.* 94, 1383–1386.
[5] *Chem. News*, January 27, 1881.

Finally, a few words regarding Mr. Blyth's observation on anthrax spores. Of all the substances examined by him, none killed the spores, but many of them (including Sanitas) delayed their growth. Now Mr. Blyth says nothing as regards the action of these re-agents upon the fully developed micro-organisms and their functional activity. Assuming, that is to say, that the spores were unmistakably anthrax spores, and could produce disease in infected animals, he fails to show that after treatment with Sanitas *or in its presence* the spores retained infectivity, and until that is proved I decline to accept the conclusion that Mr. Blyth would draw respecting the treatment of this cattle disease, and even if he could prove it (and I am convinced he cannot) I would only accept the conclusion in regard to that one particular disease.

To properly test the value of any disinfectant it is necessary to test all its properties and not one particular property alone, and in relation to not one infectant but all infectants. Mr. Wynter Blyth has only made a few passing observations. On the other hand I can, if called upon, adduce a great mass of evidence in substantiation of my assertion that in "Sanitas" we have the best disinfectant and one that can be fully relied upon in the most serious cases of disease. I do not, however, seek to obtain a gratuitous advertisement for a preparation in the sale of which I am interested. My only object is to direct attention to the defects of Mr. Blyth's observations, and as a scientific man, who has made the subject at large a matter of special study, to contest his conclusions. One most important matter is left entirely out of consideration by Mr. Blyth, and that is the probability that micro-organisms convey disease and death not by their mere presence in the human body, but by the direct chemical and physiological properties of their secretions or life-products. The yeast plant secretes a chemical substance which splits up sugar into alcohol and carbonic dioxide. Other micro-organisms give rise to the production of sepsin, which is a chemical infectant. It is almost certain that the infectious and contagious diseases which owe their origin indirectly to micro-organisms, are similarly directly produced by chemical products elaborated or secreted by them.[6] If that be so, the use of caustic and poisonous disinfectants sinks into insignificance, and cultivations should be conducted not merely for obtaining pure growths of particular micro-organisms but with the object of ascertaining the effects of inoculating animals with the cultivation mixture before and after sterilisation (conducted without chemical alteration of attendant substances) and before and after attempted disinfection. This subject is of the very greatest importance, and I should gladly welcome any results in this clearly defined direction. In conclusion I may add that this is a matter to which I have paid much attention in the forthcoming new edition of my "Nature's Hygiene."

Society of Apothecaries.—The following medals have been awarded by the society during the past year:—In Materia Medica and Pharmaceutical Chemistry—Gold Medal to John Henry Garrett, of University College; Silver Medal and Books to Henry Hamilton, of the Bristol Medical School. In Botany—Gold Medal to Ernest Henry Starling, of Guy's Hospital; Silver Medal and Books to Wm. Beecroft Bottomley, of St. Mary's Hospital. Young Women—Gold Medal to Bertha Whitehead; Silver Medal to Sarah Elizabeth Wright. The society's gardens at Chelsea have been visited during the year by 3,248 students, of whom three-fifths were males, and the rest females.

[6] Klein has also arrived at this conclusion. See his articles on Micro-organisms and Disease. *Practitioner*, Sept. and Oct., 1884.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

FRACTURE OF THE SKULL IN A BOY—RUPTURE OF POSTERIOR BRANCH OF THE MIDDLE MENINGEAL ARTERY—TREPHINING—DEATH—AUTOPSY.

By RICKMAN J. GODLEE, M.S., F.R.C.S.
Assistant Surgeon to the Hospital, &c.

Alvero L., a boy aged 10 years, was admitted under my care into University College Hospital at about one a.m. on July 20th, 1882. At seven o'clock on the previous evening he fell on the pavement, and at once returned home. On arriving, soon after seven, his parents said that he had the appearance of a drunken man; he was pale and giddy, but he gave a clear and connected account of the accident, and complained of pain in the back of his head. He at once lay down and vomited some mucus. Soon he became a little wandering in his talk, and then drowsy, saying that he had been dreaming about a cart. His condition did not alter much, but yet sufficiently to alarm his parents, who thereupon brought him to the hospital, where he arrived about one o'clock in the morning, some six hours after his accident.

He was able to stand in the casualty ward, and to answer questions; but the drowsiness was evidently rapidly increasing. He was at once taken up to the ward, and when put to bed he lay turning himself about, and groaning. There was no recent wound, but a large hæmatoma, 3 inches by 3½ inches in extent, was found above the right ear, extending over the parietal eminence of this side. The movements of the left arm and leg were evidently weakened. The right angle of the mouth was a little higher than the left, but the face was otherwise symmetrical; there was no inequality about the pupils.

At 1.45 a.m. the pupils had become unequal, the right being larger than the left. His optical perception also appeared to be depressed. He took no notice when spoken to, but struggled when the tender area was touched.

After this, he rapidly became insensible, and was seized with convulsions, which had the following peculiarities: They were not of a very definite character in the groups of muscles affected, or in the rhythm, or force of the movements; but this much was noticeable, that the right limbs moved far more than the left, and this was especially the case at the commencement of the convulsion, seeming to show that the irritating stimulus was affecting both sides of the cortex at once, but that the centres in the right hemisphere were handicapped, *e.g.*, by anæmia and by actual compression. The convulsions were brought on whenever it became necessary to examine the patient, but scarcely, if ever, occurred except from some such exciting cause.

They commenced by irregular flexion and extension movements of the right limbs, which were feebly imitated on the left side; the lad then usually flexed his spine, and curled himself up towards one or other side; now and then he buried his head among the clothes, while on one occasion he cried out (apparently reflexly) "Oh! my head!" The movements continued for not more than two minutes. They were fairly powerful, and (with the exception of the difference between the two sides as noted above) were never quite alike in detail.

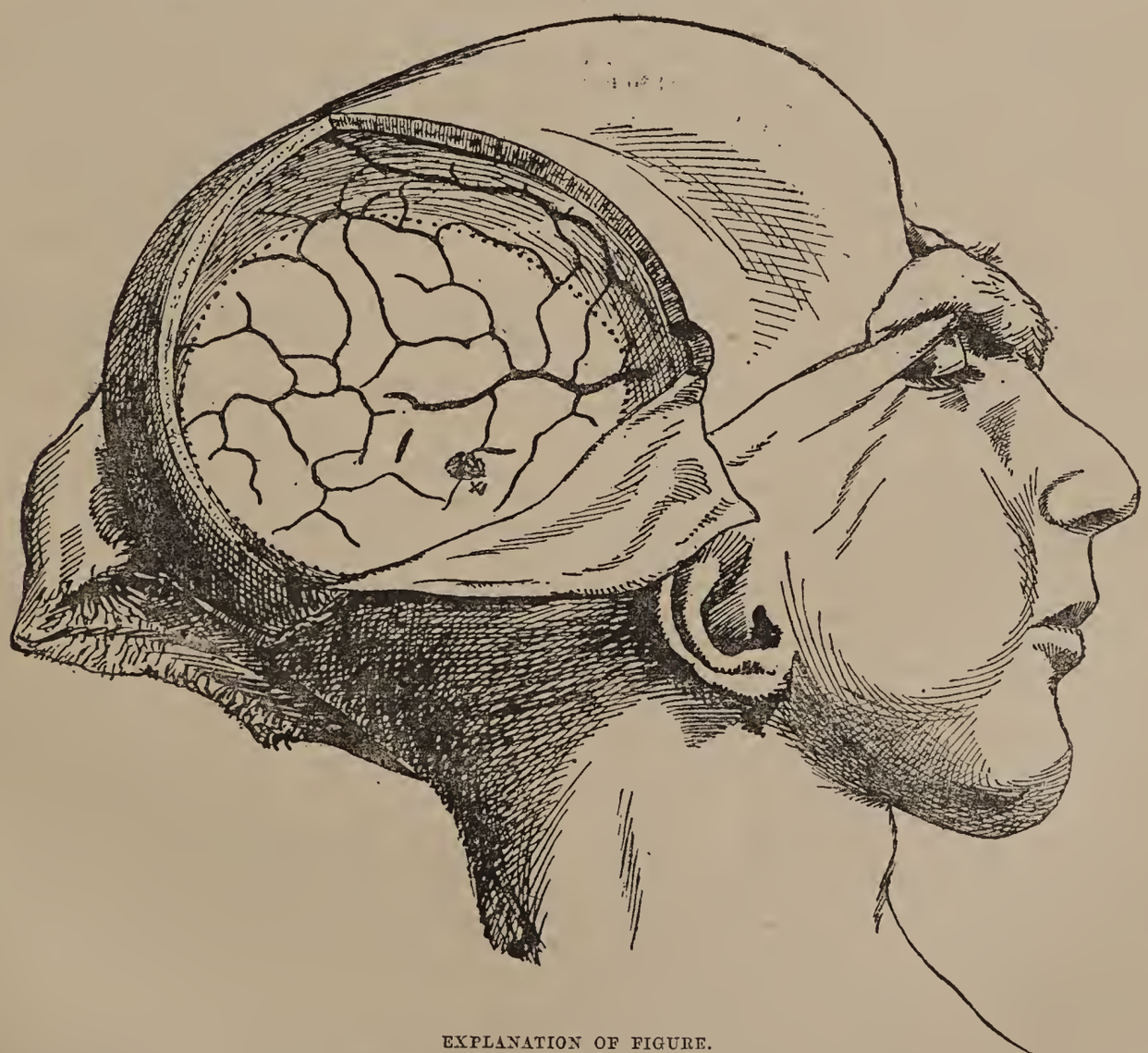
By 3 p.m. he was much more drowsy, and the convulsions rapidly increased in frequency and severity. The left pupil became dilated as the patient struggled,

and the pulse increased in frequency; when he was quiet the pulse was quiet, beating not more than 54 to the minute. The respirations had become catching and short; his expression was worn, and he was evidently growing weaker. He yawned at intervals.

His symptoms seemed to me clearly to point to pressure on the right side, and judging from the interval of time which elapsed between the accident and the onset of these symptoms, I concluded that they depended upon rupture of some branch of the middle meningeal artery, or other vessel of the dura mater on the right side. There did not, however, seem to be any clear indication as to whether the blood was likely to be found beneath the seat of injury, or in the usual situation (near the tip of the small wing of the sphenoid) of the anterior branch of the middle meningeal artery, which might have been torn across by a fissured fracture in the bone.

As the boy's condition was getting desperate, it was at last decided to trephine in the latter situation; and accordingly a spot was selected 1½ inches above the zygoma, and an equal distance behind the external angular process of the frontal bone. Considering the active movements which occurred when the injured part was touched, I thought it would not be prudent to attempt the operation without administering chloroform. It was given on lint. The administration had not been commenced very long when the breathing, which had hitherto been short and jerky, suddenly altered its character, the inspiration remaining as before, but the expiration becoming prolonged to a most unusual length. The administration was at once stopped, but the breathing was not improved. Presently all voluntary respiration ceased, and we were obliged to do artificial respiration, the pulse meanwhile continuing to beat forcibly. I proceeded with the trephining, and rapidly removed the circle of bone, across the centre of which was seen the groove for the artery. The opening, however, corresponded with the outer limit of the clot, as was proved by passing a probe backwards between the dura mater and the bone. It entered a large cavity, filled with blood-clot, and from which also a considerable quantity of fluid blood escaped. It seemed reasonable to suppose that this proceeding must have relieved very considerably the intracranial pressure, but no effect was produced upon the cerebral condition. It became increasingly difficult to make the air enter the chest by the artificial respiration which was still being kept up. The pulse now began to get weaker and weaker, and the boy died.

The Autopsy was made the same day. Rigor mortis was marked. The scalp was first separated from the right side of the skull, and it was then seen that a fracture ran horizontally forwards from the junction of the lower and middle fourths of the lambdoidal suture to a point one inch behind the highest part of the temporal suture. A portion of the side of the skull cap was then sawn through, and removed as shown in the figure :—



EXPLANATION OF FIGURE.

Appearance of brain, after turning down the scalp and removing a portion of the skull, including the fracture and part of the trephine hole, and reflecting the dura mater. The trephine hole is seen at the lower part of the anterior saw-cut in the skull. The dotted line shows the extent of the clot, and the convolutions compressed. XI indicates the laceration immediately beneath the fracture, and the spot at which the posterior branch of the middle meningeal artery was torn. The two thicker lines represent—the vertical one the fissure of Rolando, the horizontal one the fissure of Sylvius.

Beneath was found a large disc-shaped clot, weighing 2¾ oz., depressing the brain an area 3¾ inches in circumference, the extent of which is indicated by the dotted line in the accompanying drawing. The posterior branch of the middle meningeal artery was torn through at the point at which the fracture crossed it. The opening was demonstrated by injecting water through the carotid exposed in the neck. It was interesting to note that the vessel had been apparently plugged by a small clot which was found at the seat of rupture. It was only indeed after this clot had been sponged away that the small jet of water could escape. The seat of the rupture was vertically above the mastoid process, and 1½ inches behind the centre of the trephine hole. After removing the clot, it was found that a very considerable portion of the side of the brain had been compressed, and as far as could be judged little or no expansion of the compressed portion had occurred. The centre of pressure appeared to be over the extremity of the posterior limb of the fissure of Sylvius. Three small ecchymoses, not extending more deeply than the grey matter, were present in the centre of the middle temporo-sphenoidal convolution (XI in Figure). The actual flattening, as indicated in the drawing, involved the following convolutions: the supra-marginal, angular, posterior third of superior and middle temporo-sphenoidal, and the second and third annextant gyri. The convolutions of the entire brain showed considerable flattening except the anterior half of the left frontal and both the orbital lobes. There was considerable ecchymosis in the pia mater over the left frontal lobe. Both the grey and white substances were disorganised to the depth of one centimetre over an area of about one centimetre in the marginal convolution above the tip of the frontal lobe. There was also a little bruising to the outer side of tip of both temporal and sphenoidal lobes. The vessels at the base of the brain were healthy. The whole brain was extremely pale and anæmic. The fourth ventricle was normal; medulla and cerebellum also normal. Base of skull normal. Nothing remarkable or worthy of mention in either the thoracic or abdominal viscera.

Remarks.—The diagnosis of this case was one of considerable difficulty. There were in the first place unequivocal signs, as it seemed to us, of pressure from a gradually increasing clot, as opposed to those of a severe injury to the brain itself. They were:—(1) The interval of complete consciousness after (2) a severe injury to the head. (3) The gradual onset of drowsiness accompanied by vomiting. (4) The drowsiness gradually passing into complete unconsciousness. (5) The obvious paresis of one side of the body. (6) The slow pulse, and (7) the slow respiration. A complication was also introduced by the presence of the convulsions, the cause of which is obscure, and the nature of which was not very definite. It was thought by Mr. V. Horsley (then Surgical Registrar at the hospital), who observed the case with great care and to whom I am indebted for many of the observations and suggestions in this paper, that they were the result of some general cortical irritation and were more apparent on the right than on the left side because of the paresis of the latter.

It also seemed clear that the clot was on the right and not on the left side, the only unilateral symptoms present, viz.:—(1) The left paresis, and (2) the dilatation of the right pupil obviously pointing in this direction. It is much the most common occurrence for the fracture to pass to the opposite side of the skull to that struck, taking the line through the foramina in the middle fossa, and thus rupturing the anterior branch of the middle meningeal artery of the opposite side; but in this case where the clot was on the same side as the injury, we were without any data as to the probability of the hæmorrhage having occurred beneath the seat of injury or at the usual situation which was somewhat further forwards. It is easy to speculate on the data supplied by the *post-mortem* examination, but I doubt whether we had sufficient facts at our command to lead us to decide that the lesion was more behind than in front of the fissure of Rolando, and this was the point which it was after all required to know.

It is interesting to note that there appeared to be an arrest in the degree of coma, and indeed at times a slight return of voluntary movement and even of speech, although the general condition was clearly becoming worse. I have pointed this out in another case of the same kind (*Lancet*, 1880, Vol. II.), and would draw attention to it now merely to show that such symptoms must not be taken as a counter-indication to trephining.

It was a most unfortunate occurrence that the effect of the chloroform upon the respiratory centre, already in a state of more or less incompetence, was so great and so lasting. The lesson to be gained from it is no doubt that the operation in these cases should always be performed without the aid of an anæsthetic, even though considerable inconvenience should arise from the movements of the patient.

Whether or not he would have recovered if the chloroform had not been administered cannot of course be asserted. I believe the brain does not by any means always recover so completely from the effects of the compression as is generally supposed, and expand at once to occupy the position previously filled by the clot. The pressure must have been very considerably relieved by the operation which was performed; and had the slightest improvement on the symptoms shown itself, I should not have hesitated, or at all events I should not hesitate if a similar case were to present itself, to make a second opening with the trephine, and evacuate the clot as completely as possible.

Medical Times and Gazette.

SATURDAY, NOVEMBER 1, 1884.

THE Association of Fellows of the College of Surgeons are not allowing the grass to grow under their feet. We are enabled to print in another column the recommendations and alterations in the charters which the sub-committee, specially appointed for the purpose by the association, have drawn up, and which will be presented for discussion, approval or amendment, at a general meeting of the association to be held at the rooms of the Medical Society, on Saturday next, the 8th instant, at 4 p.m. A copy of these recommendations will be posted to every member of the association within the next day or two; any other Fellows who have not yet joined the association, can do so by sending their names to one of the honorary secretaries (Mr. Bruce-Clarke and Mr. Morgan) together with the subscription, 5*s.*, and they will doubtless be at once enrolled, and eligible to take part in the meetings of the association.

WE must cordially acknowledge that the sub-committee have done their work well, and have shown great judgment in dealing with a difficult and delicate task. Some of the recommendations have already been conceded by the Council of the College; indeed they

are actually by-laws of the College which have been allowed to remain "inoperative." As will be seen by referring to the full text of the report, the sub-committee desire to render the duties of the president somewhat less arduous, in order to induce him to hold office for a longer period than one year; and as regards the other members of Council, they hope to ensure from them due attention to their duties by causing them to seek re-election more frequently than at present. Such a mode of procedure we are sure will recommend itself to every sensible man. As regards the mode of election of president it is advised that the time honoured rotation and seniority should be abolished. The sub-committee propose that the Council should nominate three candidates from among the actual or past members of Council, one of whom shall be the retiring president, and leave the fellows at large to elect. As regards the *Court* of Examiners, the sub-committee propose their re-election every year, with a limit of five years, and that members as well as fellows of the College should be eligible for election on to the *Board* of Examiners. They recommend an annual meeting of the fellows and members, and give to any thirty fellows or members the right to requisition a general meeting at any time.

It will be granted that the sub-committee have grasped the subject they had in hand very thoroughly, and that, while recommending radical changes in the charters, they have suggested a most conciliatory method of securing them. Thus the election of president will virtually be in the hands of the fellows at large, but the Fellows will never be able to elect a president who is not *persona grata* to the Council, for the Council first select *from among themselves* the men whom they think best fitted for office. As to the right of public meeting of the members of a large and powerful corporation, there will be no dissentients; and as to the desirability of electing the Board of Examiners from the widest possible constituency few will entertain much doubt. There are several able teachers of anatomy in the London schools alone who are excluded from the Board of Examiners by the present regulation, which largely defeats one of the objects the Council had in view in establishing the Board. On the all-important question as to what title shall be given to the licentiates of the newly united examining authority the sub-committee is silent; but it will be difficult to keep the question out of the discussion at the coming meeting.

The interesting nature of the papers submitted to the Clinical Society on Friday last fully accounted for the somewhat unusually large attendance of members. The subject of myxœdema, already most familiar to regular frequenters of the Society, was brought to the front once more by a concise, though complete, history of a case, by Dr. James Anderson, in which some novel changes had been observed in the retina. A most valuable contribution to the present knowledge of the causation of the disease was presented by Dr. Semon. It consisted in the translation of the history of a case observed by Dr. Bruns of Tübingen, in which a patient had suffered complete extirpation of the thyroid gland eighteen years previously, and was now living, a cretinoid dwarf. The body growth had apparently been arrested, although the development of the head had continued. Within the last few years the patient had begun to present all the symptoms characteristic of myxœdema. So complete a proof of the connection between removal of the thyroid gland and the conditions of myxœdema and cretinism has never before been recorded.

A paper by Dr. Carrington, descriptive of a case of a skin eruption due to bromism, led to a short but instructive discussion as to the anatomical seat and probable causation of rashes due to iodide and bromide salts. Mr. R. J. Godlee contributed an interesting account of a case of nephrectomy for tumour in an infant, which opened up two important questions for discussion—the advisability of operating at all in cases of renal sarcoma, and the respective advantages of the lateral and median incision in the operation of nephrectomy. The extreme liability of sarcomatous tumours to recurrence in other organs is well known and was fully illustrated by several of the cases mentioned in debate. Extirpation of a kidney attacked by sarcoma would appear to be thought advisable if the tumour be of recent growth and of small size. The diagnosis of such a tumour, however, is in itself a matter of no ordinary difficulty, and possibly before such a diagnosis can be made with certainty, the disease has advanced beyond the stage when an operation can be of service.

At the Medical Society, on Monday last, Mr. Spencer Watson read a paper on the Treatment of Chronic Hypertrophic Rhinitis. In severe cases, removal of the hypertrophied mucous membrane, and even of the inferior turbinated bone (which is found much thickened), was recommended; for lesser degrees, douches which should be warm, with or without a little carbolic acid to destroy fœtor, when present, are sufficient. In a few cases the dilatation of the nasal passages with graduated ivory plugs gave good results. Sometimes this condition was associated with polypus. Mr. Watson felt unable to say much on the causes which gave rise to this distressing malady. Solutions of chromic acid were of great benefit in some cases; its application in cases where caustic action was desired, caused the patient much less pain than either nitric acid, nitrate of mercury, or nitrate of silver. He had used iodoform with advantage in a few cases; but its disagreeable odour rendered it an unpleasant application. At the same meeting Dr. Braxton Hicks showed an instrument for dry air disinfection. Ingenious, but not novel in principle, the instrument secured for the air of a room a thorough admixture of antiseptic substances. He advocated its use for medical men who had been exposed to possible infection, before again visiting a patient, for the lying-in room, and for the disinfection of linen, which was often a source of danger. Dr. Barnes concurred, and enlarged on the importance of absolute cleanliness for lying-in mothers, for the infant, and for the nurse; and thought Dr. Hicks' apparatus well calculated to

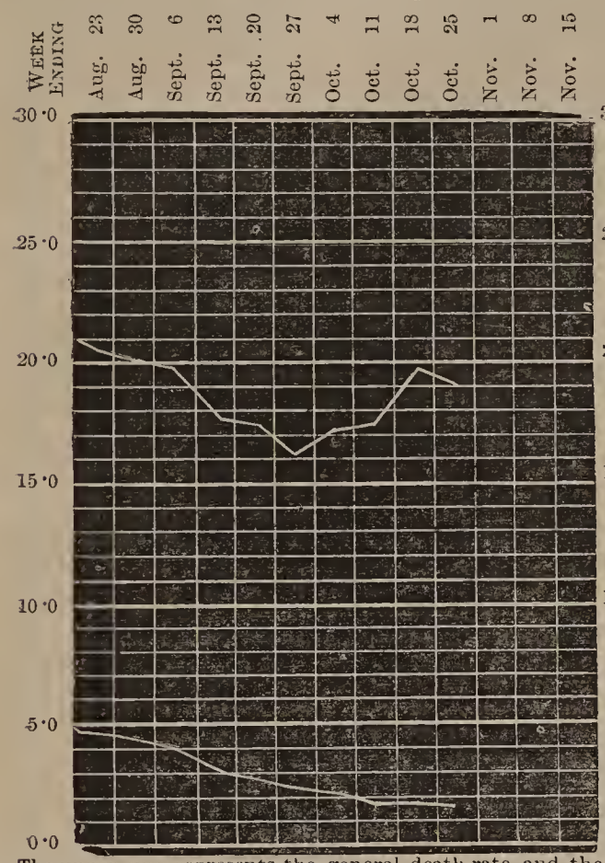
ensure this. Subsequently Dr. Kingston Fowler read an interesting paper on Functional and False Cardiac Murmurs.

The opening meeting of the present session of the Royal Medical and Chirurgical Society, on Tuesday last, was but very sparsely attended. In this respect it stands in marked contrast with the younger societies, the opening meetings of which have been crowded. Dr. George Johnson, on taking the chair, welcomed the Fellows and hoped that the session would be a thoroughly successful one. He referred to certain important alterations which had been made during the vacation, especially to the improved lavatory accommodation which had been provided. The drains, he said, had also been thoroughly overhauled by Mr. Rogers Field. The work had been rather costly, but the Council had decided that it was pressing and it had therefore been carried out. The Fellows, he thought, would be pleased to know that their house, in this respect, was in a most satisfactory condition. The first paper of the session was one by Mr. Adams, on excision of the head of the femur for unreduced spontaneous dislocation. Following the lead of Dr. Rawdon, of Liverpool, who had first performed this operation in a similar case, Mr. Adams had operated on a boy, aged 11 years, whose hip joint had become dislocated in the course of rheumatic fever. Owing to stiffness and malposition, the limb was very unserviceable. The result of the operation in this particular case was as good as it had been in Dr. Rawdon's case, and both children were exhibited, sound and well. In the discussion, Mr. Hulke gave expression to what subsequently appeared to be the general feeling of the surgeons present, that such a severe operation could only be necessary in a few exceptional cases. It was probable that, had time been given in both these cases, the bone would have made itself a new socket, and that an equally good result would have been obtained without operation. Mr. Barker thought it would have been better to have tried to reduce the head of the bone by cutting away any shreds of capsular ligament that interfered with reduction and which could not be otherwise dealt with, an opinion in which we fully concur. It was to be regretted that the plan of introducing specimens from the pathological museums illustrating the paper under discussion was not carried out. The late president, Mr. Marshall, on the opening night two sessions ago, said that the Council had decided to do this, and it was at once felt that such a practice would add greatly to the value of the paper, to the interest of the meeting, and that it would make the museums better known than they are at present. Had this practice been carried out on Tuesday last, Fellows would have been better able to appraise the various arguments *pro* and *con*, than without such specimens. On the whole it may be said that the cases in which such an operation is indicated must be few and far between.

When charging the Grand Jury, at Bedford, the Lord Chief Justice lately took occasion to remark on some of the methods by which society manufactures crime. One of these, he insisted, was the unreasonably severe punishments which are too commonly allotted to small offences against propriety. If such excessive punishments should be awarded to the petty pilferer, there is no kind of severity which the law can, with relative adequacy, administer for the greater and more serious crimes. Commenting on a case in which two little boys had been sentenced to three months' hard labour for stealing apples, after a previous conviction, he said that it was monstrous to make these boys felons for life for having done what some of the best men in the world had done, and for which they certainly deserved to have their ears boxed, but not to be sent to prison with hard labour. There can be no doubt that, as Lord Coleridge says, most of the crime of the country is the work of the same society which afterwards takes upon itself to punish the criminal it has manufactured, and we cordially agree with him in condemning these excessive punishments which defeat the very object they are supposed to secure; and especially the substitution of long terms of imprisonment for the shorter, sharper, and more suasive discipline of some form of corporal chastisement. Some official encouragement of the more extensive use of the birch, an increase in the permissible range of its employment as a punitive alternative, especially for juvenile offenders, would not only lighten the labours of the magistrates, but would tend also to lessen the dangers of developing a scapegrace into a criminal. We must protest, however, against that particular form of chastisement which his lordship has thought fit to sanction. We have already, and more than once, drawn attention to the evils which are apt to attend the practice of boxing the ears, and we believe that the progressive enlightenment of public opinion on the matter has already done much to reduce its frequency. But there can be little hope of its abolition so long as there are to be found in high places those who continue to endorse a means of chastisement which is always ready to the hand, and which members of the lower orders are not so delicate in applying as they are ignorant and careless of its risks. Imprisonment with hard labour is certainly not desirable for those who might become "some of the best men in the world,"—nor are such blows upon the head as may, only too easily sometimes, result in permanent injury to ear and brain. To the manufacture of criminals there are other alternatives, surely, than the production of deaf or imbecile virtue.

There were 1,463 deaths in London last week, giving a rate of 19·0 per 1,000, which shows a slight fall on that recorded during the week before. The deaths from zymotic diseases numbered 127, being at the rate of 1·7 per 1,000. These included 15 from small-pox, just half as many again as in the previous week, 16 deaths from measles, and 22 each from scarlet fever and diphtheria. We have over and over again drawn attention to the large mortality from this disease, and we would once more point out, as we have had occasion to do before, that in all probability this number does not represent all the deaths from diphtheria, as under the head of croup we find the deaths of 7 children recorded whose ages ranged from 1 to 5 years, the majority of whom, there can be but little doubt, really died of diphtheria.

The deaths from enteric fever declined from 17 to 12, and those attributed to diarrhœa and dysentery only numbered 27. Diseases of the respiratory organs were



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past ten weeks.

credited with 274 victims, no less, however, than 92 below the corrected average for the week. Of the 28 large towns, Preston has performed the somewhat unusual feat of having a death-rate (31·5) which is 5·1 per 1,000 higher than that of any of the other large towns.

The winter session was formally opened at the three Glasgow medical schools on Tuesday last, with the usual introductory addresses. Professor Leishman was the lecturer at the University, and his remarks were mainly devoted to medical education and examination. He spoke of the objections to the system of divided examinations, and advocated the extension of the curriculum. The address concluded with some practical advice to the students. They might confidently count on a moderate livelihood, but certain preliminary conditions, such as energy, punctuality, and sobriety, were essential to even moderate success. There was another kind of success to which he sincerely trusted none of them would ever attain. He meant that which sprang from blatant self-assertion, and even from unblushing fraud. When they became practitioners they would often hear of quacks and quackery, and they might possibly join in the cry for legislative protection against them. But so long as there was no limit to human credulity there was no possibility of suppressing quackery. There were quacks within as well as without the pale of the profession, and he took it that the moral turpitude of these was even greater than that of the bolder rascal who could not shelter himself behind the robe of a professional title. He asked his hearers by all means to aim at success, but let them never try to found success on anything but honest effort and honest work. Dr. Barr's address, at Anderson's College, dealt mainly with the legislation required in the interests of the public health; while at the Royal Infirmary Dr. Glaister discussed a somewhat allied subject, viz., the necessity of legislative reform in regard to uncertified deaths in Scotland.

Amalgamation of medical schools is almost as much needed in Glasgow as in London. There are already many medical schools in that city, and the number is shortly to be increased by the removal of the Andersonian School to the neighbourhood of the Western Infirmary. For at present the Andersonian and the Royal Infirmary School, although provided with two sets of lecturers, may be regarded as one, having the large hospital as their centre. If the principle of disruption were not congenial to the Scottish intellect, we might suggest to the governors of the two institutions to consider whether an amalgamation of the two schools might not be advantageous to both. It is not to the interest of the Royal Infirmary to let all the students drift away to the Western Infirmary, and the success of the Andersonian in the proposed new building will greatly depend upon the passing of a Medical Bill. If the University retains its present monopoly, the extramural teachers, however eminent and painstaking, will have no fair field. The funds for raising a new building might be better invested in the endowment of lectureships in one large medical school, by which means something substantial might be gained for the interest of medical education as well as for that of all parties concerned.

As our readers are probably aware, the medical session in the Irish hospitals and schools begins only nominally on the 1st of October. The courses of lectures are not formally inaugurated until the close of this month, or the beginning of November. We are at a loss to know why such an awkward arrangement is adhered to. It seems to us that the first and therefore the best month of the winter session is in this way sacrificed, and that the students are, on the very threshhold of their studies, likely to be impressed with the idea that, after all, time is not so very valuable. We are strongly of opinion that an effort should be made to get the classes together on October 1st, and to start punctually on the solemn business of a medical session.

In accordance with existing custom, however, the "introductory" in the School of Surgery of the Royal College of Surgeons in Ireland was not delivered until Monday last, the 27th ult., when Mr. Theodore Stack, Professor of Dentistry in the College, held forth in the lecture theatre before a large audience of the Fellows, professors, and students. As was to be expected, Mr. Stack spoke in particular of the progress which dental science had of late been making in the medical schools of the United Kingdom, and he pointed out how essential to dentistry was a knowledge of anatomy, chemistry, materia medica, toxicology, physiology, and mechanics

Of course the lecture did not pass off without some sallies of wit from the students, as when the lecturer was removing some teeth from a model of the palate and upper gum, several voices in the audience cried out "Painless Dentistry." And again, when Mr. Stack spoke of disease attacking "the pulp of the tooth" nearly all the students present commenced to groan in an agonised manner. At St. Vincent's Hospital, Dr. F. J. B. Quinlan, Senior Physician, gave an introductory address on Tuesday, October 28th. He chose as his subject an account of the work done at the recent International Medical Congress at Copenhagen. The address, which occupied only half-an-hour, was listened to with attention by a large audience.

We English have very little idea to what lengths religious rancour and sectarianism are pushed in Ireland. A signal instance occurred the other day, when the Corporation of Dublin were engaged in passing the annual corporate grants to the hospitals and charitable institutions of that city. It was proposed to renew a grant of 300*l.* to the Rotunda Lying-in Hospital, an institution which has a cosmopolitan reputation, and which yearly attracts numbers of students from all parts of the world. The proposition was at once opposed on the ground that the governors were almost all Protestants, and that a Roman Catholic candidate had been lately defeated on the occasion of the election to fill a vacancy on the Board of the hospital. In the course of the debate the curious fact came out that the gentleman in question was defeated by *one vote, which was given in mistake by a Roman Catholic elector*. In the end the vote to the hospital was reduced by 50*l.*, thus giving effect to a suggestion of one of the speakers, who said: "Let us, for every Roman Catholic candidate thrown overboard, cut the grant by 50*l.*" Such narrow-mindedness and bigotry in the name of religion almost surpasses belief.

The position of a medical officer of health in the Sister Country does not appear to be always a "bed of roses," if we are to judge by an incident which occurred at Kingstown, near Dublin, the other day. Dr. J. Byrne Power, Diplomate in Sanitary Science of the King and Queen's College of Physicians in Ireland, and Medical Officer of Health for Kingstown, had the temerity to read before the Sanitary Institute of Great Britain, at its recent congress in Dublin, a paper, in which he animadverted in no measured terms on the defective sanitary condition of the township of Kingstown. For this he has been severely taken to task by the Township Commissioners, who passed the following resolution at their meeting on Monday, October 27th, viz.:—"Resolved: That this Board desires to express its strong condemnation of the action of its Medical Officer of Health (Dr. Power) in grossly neglecting his duty by not reporting to the Board, as he was bound to do, and in accordance with the Artisans and Labourers Dwellings Act, 1868, any abuse (if such existed) affecting the health or condition of the township from a sanitary point of view; and that this neglect was further aggravated by his disseminating statements injurious to the progress and prosperity of the township at a meeting of the Sanitary Congress."

The returns of the new entries at the provincial schools of medicine contain one very significant fact, viz., that one short of 50 students have entered at Newcastle for the purpose of obtaining the Durham degree, in addition to 30 students who have entered for the full curriculum. Of the 49 students in search of the title of doctor it may be assumed that a considerable proportion have received the major part of their education at a London school, and would no doubt have stopped in London if they had been able to get a degree there on as reasonable terms as at Newcastle. We do not grudge the Northern University its success; such an infusion of new blood cannot fail to give it increased strength. But it is a little hard on London teachers to see students whom they have taken through the most arduous part of their curriculum running off to another place to complete it. The question of a come-at-able London degree is becoming the burning question of the day in medical circles, and we are glad to see that it is being considered by a Committee of the Metropolitan Branch of the British Medical Association. We pointed out the difficulties of the question last week, but we cannot believe that they would prove insuperable before the united efforts of the London teachers. We suppose it would not do to suggest that future students should "Boycott" the London schools until the question is solved.

The tendency of the entries in all but one of the provincial schools from which we have received returns, is towards increase. Birmingham has an entry of 35, compared with an average of 29 during the previous five years. Manchester has an entry of 68, or five more than the average of the three preceding years. The entries for the full curriculum at Newcastle are 30, or two more than the average of the previous four years; but, as we have already stated, 49 additional students have entered for the Durham degree. The entries at Leeds are 35, well above the average, while those at Bristol, viz., 21, are six below the average of the preceding five years. This falling off is probably to be accounted for by the superior attractions of the Northern Schools, at which a degree can be obtained, for we believe that the Bristol School was never in better working order or higher repute.

Mr. Warton has given notice that on Tuesday week he will call the attention of the House of Commons to the manner in which the Government have dealt with the question of poisonous *public* medicines, and move a resolution. The inexorable blocker surely means "private." Whether we regard them in respect to their proprietorship, or in respect to their formulæ, the medicines in question are anything but "public." That is the very thing that medical reformers want to make them.

It is stated that the Association of Members of the Royal College of Surgeons have petitioned Mr. Gladstone to give two representatives in Parliament to registered medical practitioners, on the grounds that "they would form a highly educated and eminently respectable constituency, and that they should not be

placed at a legislative disadvantage with the various universities which already return members." We cannot imagine a more ill-advised proceeding. It is well-known that the Radicals view with great jealousy the anomalous representation of the universities, the disfranchisement of which is probably only a matter of time, and no Liberal Government would entertain the idea of still further extending the representation of classes of the community, however educated and respectable. To petition for a gift which there is not the slightest prospect of obtaining appears to us little short of childish.

We publish in another column a short letter from a correspondent, expressing in a few words the thoughts which have probably passed through the minds of most medical men on reading the account of the death of Mr. Rabbeth, at the Royal Free Hospital. Our feelings of admiration for his unhesitating self-sacrifice are mingled with regret that it should have been exercised in so hopeless a cause. But ought it ever to be necessary for a surgeon to put his life to such imminent risk as is involved in immediate suction of a diphtheritic trachea? Are there no mechanical contrivances by which membranes may be removed without danger to the operator? These are the questions suggested by our correspondent's letter, and in answer to them we can only point to two advances which have been made in this direction. A suction syringe has been devised for Mr. Hulke which is said to work well, but is of necessity somewhat bulky. A more practical form of suction-tube is figured and described in his work on Tracheotomy in Laryngeal Diphtheria, published in 1880, by Mr. R. W. Parker. Whilst allowing a strong current of air to pass through it, the tube is provided with a plug of antiseptic wool which effectually prevents the passage of any shreds of membrane. The necessity either for immediate or mechanical suction ought not to arise except in those emergencies where no means are at hand for breaking up and removing membrane within the trachea. But hitherto it has not been the custom to provide for either of these contingencies. A good supply of suitable feathers and a suction-tube, such as the one to which we have referred, ought to be at hand in every future tracheotomy case.

Sir Joseph Lister has recently called attention to a form of antiseptic dressing which has been proved in Germany to give some remarkably successful results. It consists mainly in the use of wood wool, rendered antiseptic by means of corrosive sublimate. Dr. Paul Bruns, of Tübingen, has published an account of its mode of action and the method of its application in "Von Langenbeck's Archives." It possesses the special advantage of being extremely absorbent in its action, to such an extent, indeed, that the surface of the wound is thus kept perfectly dry, the condition most of all favourable to the process of union by first intention. A further improvement which it presents over many other forms of antiseptic dressings lies in the fact that it may be kept in its place for a much greater length of time without the necessity for renewal. It is easily applied, care being taken to prevent the intervention of anything that might possibly hinder the free absorption of the secretions from the lips of the wound. When soaked through to the surface, it is sufficient to add a small pillow of the same material to the dressing, to permit of the absorbent process continuing without interruption. Dr. Bruns gives a list of cases in which this form of dressing has been used, and it must be admitted that the figures are remarkable, whether exclusively due to the new method of treatment or not. Of 540 important operations performed at Tübingen during fifteen months, only one became the subject of any extraneous infection, and in that instance the wood wool dressing had been discontinued. In 37 cases of amputation of limbs primary union was obtained no less than 32 times. This result, which is equivalent to something over 86 per cent., is very far in advance of the general average in Germany, which usually ranges rather under than over 50 per cent. The occurrence of primary union in the miscellaneous cases was almost equally satisfactory. Such figures as these speak with considerable force in favour of the principle of dry antiseptic dressings, and Dr. Bruns' claim that an important advance is thereby established will doubtless be fully conceded by all English surgeons.

With the exception, perhaps, of forensic medicine, there is no subject in the whole medical curriculum which is worse taught, or on which more time is wasted, than that of Practical Chemistry. The course seems to have been arranged as if the student were destined to become a chemist rather than a doctor, for the simplest chemical manipulations and analyses required in medical practice are, as a rule, entirely omitted from it, and the student has to learn them subsequently as best he may. The brief remarks on the subject contained in a paper read by Dr. H. E. Armstrong at one of the Health Exhibition Conferences, and just published, are not a bit too strong, and it is to be hoped they will not fail to arouse the attention of our medical teachers. "At present," says Dr. Armstrong, "the only practical teaching vouchsafed to the majority of students in our large medical schools is a short summer course, during which they are taught the use of certain analytical tables: as a mental exercise, the training they receive is of doubtful value; the knowledge gained is of little use in after life, and the course certainly ought not to be dignified by being spoken of as a course of Practical Chemistry: *test-tubing* is the proper appellation. It is not a little remarkable also that even the London University Syllabus nowhere specifies that a knowledge even of the elements of quantitative analysis will be required of candidates either at the Preliminary Scientific or First M.B. Examination, and this too, when, as is well known, an analysis to be of any practical value must almost invariably be quantitative. It is little less than a disgrace to the medical profession that a subject of such vital importance as chemistry should be so neglected." Dr. Armstrong, in his paper, is not content with such destructive criticism as the above, but he describes a most rational method of teaching chemistry practically, which, if followed out in our medical schools, would no doubt do much to give the student a fair insight into chemical processes. The subject is one that might engage the attention of the Medical

Council much more profitably than some of the discussions on which time has been wasted this session.

At the ordinary meeting of the Royal College of Physicians held on October 30th, the licence of the College was granted to thirty-five candidates who had passed the required examinations, and six gentlemen who had been examined and approved by the Censor's Board were admitted to the membership. The audited accounts of the College for the year ending Michaelmas Day were before the College, and presented a very pleasing picture of its financial condition. It was stated that Dr. Quain had been nominated Harveian Lecturer for next year, and that Dr. Mahomed would deliver next year's Bradshawe lecture.

THE EXAMINATION OF ARMY SURGEONS.

Another Army Circular, dated 1st November, 1884, supersedes the one issued on the 1st August, so far as regards the Regulations for the examination of officers of the Medical Staff. Surgeons must be examined between the fifth and tenth year of service, and surgeons-major must be *re*-examined before promotion to Brigade rank. We do not like these frequent tests. We do not see why surgeons between the fifth and tenth year of their service should be examined as to their qualifications for promotion to the rank of surgeon-major. What difference exists between the two ranks? The surgeon-major is the senior, and has probably become more a man of the world, and better conversant with War Office forms; but where is the professional difference between the younger and the older man? In all main points, the surgeons who leave Netley are as capable to undertake hospital work as their seniors. Indeed, if they are not fit at the very commencement of their career to act as surgeons, physicians, and sanitary officers, they should never have been given commissions at all. In the olden days assistant-surgeons were in a rather different position. They were under the training, as well as under the orders, of the surgeons of their respective regiments. On entering the Service they would not have held the responsible position that may now fall to the lot of a junior surgeon, who may be at any time called upon to resist disease or repair injuries, alone and unassisted. No doubt those who are advocates of examination will say: This is the very reason why the surgeon should be tried before promotion, to make certain that his knowledge has not lapsed, nor his skill failed. But if this be the reason, why do the authorities allow a number of incompetent men, or presumably incompetent men, to serve for five or ten years before they make sure of their ability to perform their duty? The test for *admission* to the Medical Staff of the Army should be severe, but it should be fitted to the nature of the work, and candidates for the Service should be led to understand the reason for this. Army doctors and general practitioners belong to the same class, and have the same education in the schools, but their fields of practice are widely different. A knowledge of medicine, surgery, midwifery, and hygiene, is essential to both, but to the country practitioner, excepting under peculiar circumstances, operative surgery comes last in the list of qualifications for success, while with the Army doctor it should be the first consideration. Unless a young medical man has an aptitude and even a predilection for operative surgery, he has no right to enter the Army at all. But if the Army doctor has aptitude and taste for this branch of his profession, why torment him with repeated examinations? They are not required for practical work and they may be made unfair, pedantic, academical and unreasonable.

Let us notice Clause No. 4 of the rules for the examination of surgeons; it runs thus: "A report on any subject of a practical professional character to be selected by the officer himself, and certified to be his own composition, and in his own handwriting, will also be required." But mark what follows: "*Considerable importance will be attached to the literary and scientific merits of the report.*" We should like to know how far a pleasant and easy style of writing would count in the way of obtaining marks, and whether a man who had a flow of words like Macaulay might be excused for not having the skill or nerve to "take up" an important wounded artery? We do not attach much importance to Clause No. 3, which is intended to be eminently practical: "A certificate will be required from a recognised teacher of surgery in any medical school, at home or abroad, in which operative surgery is taught, showing that the medical officer has gone through a complete course of operative surgery during the period within which the examination must be taken, and that he is a competent operator." We confess we should like to have a complete list of the schools and their nationalities, as well as the opinions of the teachers of operative surgery on the dead body.

We have less objection to make to the examination of surgeons-major before promotion to the rank of brigade surgeon. There is a special knowledge required here which could hardly be demanded from the average run of medical men. It is not only hospital duty which has to be performed, but hospital organisation and management which have to be mastered, and the relative positions and responsibilities of medical officers to other departments of the Army must be thoroughly understood. It is amusing to notice, however, that the unfortunate surgeon-major under examination will be required to furnish a medico-topographical report of any district or country in which British troops have been or *are likely to be actively employed*. With the pleasant surprises of the Soudan and the Zhob Valley before our eyes, we recognise the enormous geographical information which may be required from candidates. Still we consider, in all seriousness, that men of superior ability should have the chance of distinguishing themselves, and all we need insist upon is, that the necessary leave for special study should be given to every surgeon-major who applies for it. It cannot be given unless the strength of the Medical Staff be increased, and as this will not be done, we see a probability that the *luckiest man*, and not the best of the surgeons-major, will get his promotion.

The re-introduction of examination shows one thing—it proves that the War Office feels sure of its ground, and that it no longer dreads the half-forgotten day when students would not compete for entrance into the Medical Department of the Army. Of course the War

Office only imitates the German system of examination, but it may be more worth while for the German Medical Officer to remain in his service than might be the case with the members of the British Medical Staff. There can be no doubt that young English medical men could exercise their profession more lucratively in the colonies, or in country practice even, than in the Service; and the temptations to choose the freer life of the army may be powerless, with constant examinations staring them in the face, and useless examinations too. If there is *any* reason whatever for these tests, it lies in the desire to keep men up to the mark, and yet the regulations direct that the fellowship of any Royal College of Physicians or Surgeons of Great Britain or Ireland, granted under a higher standard than that for licentiate or member, will be accepted in lieu of an examination in Medicine or Surgery. That is to say, a gentleman who enters the Army with the qualification of "Fellow" can never rust. Lucky man! who needs only to pass his leisure hours in cultivating a literary style, or mastering the topography of the various places where British troops may have to serve.

CLOISTERED VIRTUE.

Some of the lay papers have recently been interesting themselves in the social life of the London Medical Student. The discussion was started by a letter in the *Pall Mall Gazette*, the writer of which, impressed by the fact that the London student has to spend four years of uncared-for life in the very centre of every dissipation, without the discipline and many social advantages of an academic life, naïvely suggests that the General Medical Council should compel each school to have a dean of residence or other such official, who, besides visiting and supervising the lodgings of the students, should watch over the social side of their lives. He further suggests that the Council should appoint paid proctors to supervise the London students as a whole and to take care that those who have so misbehaved themselves as to come within the cognisance of the police magistrate should be rusticated or expelled from their respective schools. And, lastly, he deplores the want of combined lodgings or hostels, the need of amusements like billiards, &c., and the need of libraries for evening study. The schools, he complains, compete with each other in every way except in providing social comfort for their students. As a result of this neglect, he thinks that the whole tone of the profession is lowered. Except for the futile suggestion to work through the Medical Council, there is a good deal to be said for the views expressed in the letter from which we have quoted. The life of the London student *is* often sordid and comfortless. In the case of the working student, it is a life of continued labour, unvaried, for the most part, by amusement, except an occasional visit to the theatre, and relieved by few of those harmless social dissipations, which form so large a part of Oxford and Cambridge life. It is also, we admit, in most cases an uncared-for life. The student is quite at liberty to go to the dogs, without any of his teachers thinking it part of their duty to restrain him, and, in many cases, he takes full advantage of such permission. Nay, at some hospitals, we regret to say, the facile descent to Avernus is not only permitted but is even encouraged by the teachers. A cruel custom has recently grown up at some schools of what is euphemistically termed "getting rid" of a student who is too idle or too imbecile to do credit to his school at his public examinations. While fully admitting the advisability of removing from a medical school every real *mauvais sujet*, who by his example is likely to lower the tone of his fellow students, we cannot believe that medical teachers are honestly fulfilling their contract with the parents in throwing off every student whose wits are merely below the average, and the school which habitually follows such a policy appears to us to thereby confess its incompetence and its untrustworthiness as an educational institution.

While granting, however, that in some respects the teachers might with advantage take a little more sympathetic interest in the personal career of the students entrusted to their care, especially in the case of the dullards, we cannot admit that the life of the London student is in any way inferior, as a discipline, to the life of the older Universities. As a training for future struggles it is distinctly superior to the ideal university life. It might be the better for a few more refinements, but we should strongly deprecate any attempt to introduce the apparatus of deans and proctors which makes an Oxford or Cambridge career little better than an extension of school-life. The one good point in the life of a medical student in London is its absolute freedom. The feeling of responsibility which such freedom brings to every serious student is one of the most important elements in his education. It makes him self-dependent and resourceful, and converts him almost at one stroke from boy to man. That a certain number of students abuse this freedom is a matter of course. They would abuse any good gift. We very much doubt, however, whether the proportion of London students who come to grief through their liberty is much larger than the proportion of university undergraduates who go under in spite of the elaborate precautions with which their lives are surrounded. And in order to keep these floundering students within the lines of virtue, one would have to rob the London life of that very element which makes it so valuable and robust a training for the vast majority. It has often been remarked upon as little less than a paradox that while medical students are proverbially so wild, medical practitioners are proverbially so steady and respectable, but to our thinking the paradox easily explains itself when one looks upon the free unfettered life of the student as the appropriate training for the self-restrained life of the practitioner. Make the student more virtuous and the chances are that you will make the practitioner more vicious. We have as little admiration as Milton had for a "cloistered virtue," and we would much rather see the London medical student as he is, a little wild, a little rough, and guilty, perhaps, of occasional lapses from virtue, than have him surrounded by the refined fripperies, and the polished restraint of an academic life. More billiards, if you like; but proctors, distinctly "no."

CLINICAL PAPERS.

XV.—On The Observation of Symptoms.

It has been said that our official nomenclature does not so much describe disease, but rather gives names to the several ways in which disease terminates. There is the first declension from health, referable to no one region in particular; by and by come certain indications that this or that organ of the body is suffering more obviously than the rest; and at last there is the discovery of some definite material change. But it is only to this final stage of a lengthened process that any formal name is attached. So far indeed are we removed from any other nomenclature than this, that it is difficult to form a conception of what any other would be like or what sort of terms it would employ. The supposition that a day will come when the precise nature of disease will be recognised and appreciated at first starting is so different from the existing state of things that, except for suggesting a metaphysical conflict for priority between structure and function, it is not conceivable.

Yet, inasmuch as people are ill before they are diseased and seek information as to the nature and tendency of their earliest symptoms, it comes to pass of necessity that a number of phrases are current amongst us—"irritation," "loss of tone," "depraved secretion," "perverted nutrition," and the like—which, though they have no precise significance, and are in fact borrowed from the language of theology and morals, are yet needed for daily use. Such phrases serve to designate, or rather to tide over, that stage of disease when the real significance of symptoms is matter of conjecture. They are made necessary by the demands of the public. We are in this dilemma—either symptoms must be interpreted at hazard, so soon as they arise and upon grounds admitted to be insufficient; or else the name of some symptom or group of symptoms must be set up and made to do duty for a disease which is as yet inscrutable.

It is easy enough in our formal school teaching to condemn this elastic language of symptoms and to contrast it with the realities of the *post-mortem* room. No doubt the distinction is a wide one between the mere naming of symptoms, and that process of reasoning by means of which they are explained and harmonized, and it is right to insist upon it. Yet it must be remembered, not only that the actual illustrations of disease which hospital wards afford have passed that stage at which the difficulty in question is encountered, but also that for their own sake and for a full rendering and adequate conception of all the facts concerned, the study of symptoms, as such, is a necessary part of our duty.

Let me give an illustration or two. A child exhibits certain signs suggestive of tubercular meningitis, sickness, convulsion, delirium, perhaps even paralysis; signs which time after time have been found *post-mortem* associated with meningeal inflammation, and which, on that account, are so interpreted in the present instance. But instead of dying, as upon the hypothesis was to be expected, this child recovers, and in the fact of its recovery the diagnosis is proved to be wrong, the symptoms remain unexplained, and are soon forgotten. Or take another case. Take a condition of prostration and pyrexia, which, wanting the more characteristic signs of enteric fever, is regarded doubtfully at first as either typhoid or acute tuberculosis. It happens sometimes that such patients, exceeding the proper typhoid period, will show symptoms of wasting and hectic, insomuch that at last the theory of typhoid fever is abandoned, and that of tuberculosis substituted; a diagnosis, which, in the great majority of cases, death presently comes to verify. But sometimes it will happen (I am speaking of course of the very rare exception) that such patients, in spite of extreme emaciation and prostration, do not die, but turn round and recover. Here again hypothesis is falsified, the picture is left incomplete, and the symptoms, which have thus proved delusive, are regarded as shadowy and unreal and willingly dismissed, or only dwell in the mind in some misty fashion along with other examples of erroneous or unverified diagnosis.

Yet here are facts; facts which are not the less real because they happen to contradict text-books. To speak of "cerebral irritation," or "tubercular fever," is to speak vaguely, but if by such terms I convey the fact that symptoms of the kind just mentioned are of wide signification and not uniformly fatal, they are terms which serve their purpose well enough.

For, observe, that unless symptoms of this sort, having a rare and unlooked for issue (and many other illustrations might be given besides those I have chosen), are kept in full view, the natural history of disease may be distorted and narrowed in many mischievous ways. It is not only the puzzled and mortified student we have to consider in presence of a result contradicting his predictions and discreditable to his diagnostic powers. There is another frame of mind besides his. It is that of the therapeutist who first asserts the presence of a fatal disease, and presently announces that he has succeeded in arresting it. Let any drug of large pretensions be brought into general use—such, for example, as the hypophosphites—and in the nature of things the time must come, sooner or later, when such drug happens to be employed in one of these anomalous cases of unexpected recovery. Nothing is more certain than that such recovery, however rare, is within the scheme of nature and takes place independently of any specific action on the part of the physician. But if that fact be put away and ignored just because it is at present inexplicable, such neglect will assuredly open the door to misrepresentation. And this not from dishonesty, not even from inexcusable ignorance. It is the natural consequence of our partial recognition of the facts of medicine, and the habit of dwelling exclusively upon such portions of it as are understood and assured.

And there are other motives for the independent study and due registration of symptoms. Think how many of these are as yet awaiting interpretation, how pressing is the need for such interpretation if ever we are to get nearer to the root of disease, and how

certain it is that systematic and impartial observation of symptoms is the only method of getting at their use and reason. There are scores of symptoms of uncertain indication which are waiting to be registered and which will find their significance in the future. How many men with bronzed skin passed away, how many women with enlarged thyroid glands, how many children with gigantic calf muscles, before Addison, and Graves, and Duchenne had courage and pertinacity to dwell upon novel and trivial symptoms? Clinical signs which have no assured physical basis, which are, so to speak, unattached, are always in danger of neglect and disparagement. When cardiac murmurs were first revealed, and the valve defects on which they depend were pointed out, those physical signs were eagerly recognised and made use of. But it was many years later before the reality of functional and dynamic murmurs was admitted. They must have been heard often enough; but the evidence of the ear was mistrusted because the sight did not seem to bear it out. It is only the bold and the independent who can pick out and appreciate new symptoms, can seek a meaning in the mark of a finger-nail drawn across the skin, or utilise the schoolboy's trick of tapping the patella ligament.

If any one should doubt for a moment how pressing is the need for more light in the department of symptoms, let him consider—it is but a single illustration—the nature and the incompleteness of our knowledge in regard to cardiac inflammation. There are no *necessary* signs whatever as yet known to us to indicate the onset of inflammation either without or within the heart. The rub of pericarditis is only present by an accident, while endocarditis has at the first absolutely no indication which can be trusted. If it be true, as Dr. Sibson taught, that these morbid conditions may be recognised by the face and aspect, what a flood of light will be one day thrown upon some of the most obscure as well as the most important problems of practical medicine.

The observation of symptoms is indeed the real and only path of advance in practical medicine, and one can but wonder to see it neglected as it is. If it be true that there is a class of practitioners whose minds seldom dwell upon morbid changes which ought to be familiar to them, and who have but vague knowledge in regard to the few pathological terms they employ, it is true also, that in our hospital practice and teaching we deal mainly with disease which is advanced and irremediable. The hospital student can hardly be brought to feel an interest in his cases until such time as they present objective signs which are grossly tangible, and where the main problem is not to cure, but to be able to forecast the precise physical condition of some vital organ in keen anticipation of the day when death shall reveal it. Meanwhile examples of *disease in the making*, of illness which (provided there is the insight to recognise its tendency) there may be time to arrest, get no systematic study whatever. They are observed on and off in such loose fashion as out-patient practice implies, or, worse still, in the case of the well-to-do, they go wandering about from doctor to doctor and are mocked and trifled with under such names as "depraved nutrition," "suppressed rheumatism," or "latent gout." Ψ

REVIEWS AND NOTICES OF BOOKS.

SURGICAL SCIENCE AND SURGICAL PRACTICE.[1]

We gladly welcome the new editions of these standard works, both of which have been eagerly looked forward to. The former of them — and we place it first on the list by reason of its seniority—has stood the test of 30 years trial, and appears now in its 8th edition; the latter, though comparatively young, is in its 4th edition (12th thousand). Measured by their commercial success, therefore, the books must have fulfilled the objects for which they were written, and they have thus placed themselves beyond and above criticism from this particular standpoint. And yet, though dealing with the same subject, and written for the same purpose, by authors equally eminent in their profession, the works are widely different. General readers, students, and critics will all alike agree with Mr. Erichsen that "the teacher of surgery who seeks to give a true and impartial view of the subject of his tuition, is placed in much the same position as a judge who is summing up a great cause," and that "he must endeavour to divest himself of the trammels of the schools, to free himself alike from the partisanship of individual bias and the prejudice of professional antagonism." It shall be our endeavour to shape our criticisms on these broad lines and to see how far the authors act upon such admirable maxims. We will bring out the contrasts and parallels of the two works, and also add something about the individual character of each.

We cannot say much in praise of the arrangement of matter in either book, both being exceedingly faulty artificial, and unscientific. Mr. Erichsen plunges *in medias res* straightway, Mr. Bryant gives an introductory chapter, which we would advise every student to "learn and conn by rote" before going any further. Mr. Erichsen, under the title of "first principles" commences with chapters on "general considerations on operations," "amputations and disarticulations," and on "special amputations." How the doctrine of special amputations, or disarticulations — some of the most dreadful mutilations which the surgeon is called upon to effect—can be ranked as "first principles" we fail to see. Surely before men are taught to amputate, they should learn something about reparative surgery, and the principles which govern it. John Hunter taught that "surgery consists in curing disease rather than in the removal of it by mechanical means," and in accordance with this precept, Mr. Bryant wisely begins with "wounds—repair and inflammation," and gradually passes on to surgical disease, and thence to injuries and questions of surgery generally. Mr. Erichsen's chapters on Inflammation, however, though misplaced and curiously scattered about, are nevertheless admirable essays, fuller and more scientific than Mr. Bryant's.

[1] The Science and Art of Surgery, by John Eric Erichsen, F.R.S., &c. 8th Edition. Edited by Marcus Beck, M.S., and F.R.C.S., &c. 2 vols. London: Longmans, Green and Co., 1884. Pp. 1168 and 1249.

The Practice of Surgery—A Manual, by Thomas Bryant, F.R.C.S., &c. 4th Edition (12th thousand). London: J. and A. Churchill. 2 vols. Pp. 846 and 674.

The former are evidently intended for a scientific surgeon, the latter are condensed, and therefore imperfect, summaries suitable for students desiring to know as little as possible, and yet anxious to pass their examinations. In the former, inflammation is treated from the clinical, pathological and experimental stand-points; in the latter, Simon's now obsolete views are quoted, and the "germ theory" is left conspicuously absent. On the burning question of antiseptic surgery we naturally expected diversity of opinion, but we were not prepared for all we find awaiting us. Mr. Bryant in his first edition spoke so cordially (p. 1042) of the new system, and of what it seemed capable, that we are the more disappointed to read the sneering remarks which are applied to it in the present edition, in the section on "antiseptic irrigation of wounds." Under the catchword "Listerian enthusiasm"—mark the word!—Mr. Bryant says: "Facts have been employed as legal advocates use small data which tell in their favour to support the cause they have in hand, but not as the judge who has to weigh evidence and with an unbiassed mind give judgment." Under which category does he class his disparaging remarks on the theory of Listerism, the use of the spray, and his allusions to "our self-styled antiseptic friends" as well as other similar remarks in this section? Is the statement that "the Listerian mode of dressing has had its day," in his own sense, judicial? In a book for students, wherein the principle upon which it is based is not discussed, should such an *ex parte* statement be made? Does it not partake of the advocate rather than the judge?

We will not venture to say anything about Mr. Bryant's views on theoretical questions, but a comparison of his first edition with the present one will show how greatly his practice has changed even in so simple a matter as the "treatment of wounds." Besides being placed at the commencement of the work, doubtless in acknowledgment of its paramount importance over all subsequent questions in practical surgery, the chapter in the later edition is greatly enlarged and a variety of minor details insisted on which were not thought worthy of mention in the former one. Throughout, for purposes of cleansing wounds, the importance of which is strongly emphasised, a stream of water "medicated with some antiseptic" is recommended as "the best means" and with a view to promote primary union, among other things, drainage, and "protecting the external wound from all such outside influences as may be prejudicial" are strongly insisted upon. Under the latter, Mr. Bryant (p. 33) "for some years past has been in the habit of dressing all wounds with dry absorbent lint. . . . Wet applications, and more particularly watery ones, are now seldom used, and cannot be recommended, since it is well known that by moisture decomposition is encouraged. When they are employed they should be medicated, that is, they should contain some drug which has an influence in preventing or arresting decomposition. . . ." Again (p. 38), "in some cases, a soft sponge which has been wrung out of iodine or carbolic lotion is a good substitute for the wad of absorbent cotton." On p. 39, a difference between a wound made with a "clean" and a "dirty" instrument is emphasised by italics. In the old edition (p. 409), "should pain or swelling follow this primary dressing, and increase, the dressings should be at once removed, and *warm water applications or a poultice applied.*" Again (p. 454), "when an abscess has been opened, it should be left to discharge by itself, *a simple poultice or warm water dressing* being applied over the surface." Again (p. 456), "when used in large cavities, the cavity *should be washed out, with or without* Condy's fluid, at intervals." (The italics are our own). Can any one read these passages in the two editions without being struck with the remarkable change which must have come over the writer's views in the interval between their publication? In the early edition no mention of antiseptics is made; in the later one the subject and its great importance are impressed on the reader on almost every page. Mr. Bryant, however, gives hardly any clue to his altered views, but disclaims "germs" and ridicules those who "claim for themselves the title of 'antiseptic surgeons'."

Mr. Bryant's chapter on traumatic fever, septicæmia, and pyæmia is faulty in that the interpretation of these processes is not attempted and nothing whatever is said about their experimental production. The doctrine of micro-organisms is again conspicuous by its absence. It is satisfactory, however, to find that the mortality from pyæmia has lessened by more than 50 per cent. during the past five years. We should feel no hesitation in ascribing this to the more general use of "antiseptics" which Mr. Bryant teaches and practices, irrespective of all theories as to the mode in which they act. In leaving this part of "the practice of surgery" let us express our opinion that if the last edition had contained nothing new beyond the section (not found in the first) on the "antiseptic irrigation of wounds," the addition would have raised the book immensely in value as a work either for students or practitioners.

Mr. Erichsen's chapter on tumours is very full and clear. After giving the old classification into malignant and non-malignant, with a sub-class of semi-malignant growths, and pointing out the clinical value of such an arrangement, he goes on to discuss the "classification founded upon an anatomical basis" now almost universally accepted as the simplest, the most reliable, and the most scientific. Mr. Bryant, strangely enough, says nothing about this anatomical classification; but Dr. Moxon, who contributes the chapter on "the microscopical anatomy of tumours," just alludes to it. Mr. Bryant classes lymphoma among the "innocent" growths, and sarcoma among the "semi-malignant" ones. Among the "malignant," we find rodent ulcer. Under the term "granulation" tumours he includes "follicular, keloid, gummata, &c." Thus it will be seen that different surgeons attribute different meanings even to such apparently simple terms as "innocent;" else how could lymphoma, one of the most pitiless of growths, come within this category? Mr. Bryant gives a very excellent chapter on diseases of the eye, which will materially enhance the value of his book in the student's opinion. Mr. Erichsen has thought well to exclude the subject as too special and too large for the limited space that could have been given it. Mr. Bryant has given a complete index of the whole work in each of the volumes, an innovation

which we recommend to other authors. In the "contents" (vol. ii., p. 7) under Affections of the Scrotum (in large letters) we find included *sterility*, *impotence*, and *spermatorrhœa !*

Apart, however, from these and many other points to which *as critics* we might take exception, we gladly admit that the books have been greatly improved by their revision and the important additional matter which has been introduced. In all matters of practice they will be found to contain help and suggestions on which reliance may be safely placed. Mr. Bryant especially speaks from an almost unrivalled experience at one of the largest of the metropolitan hospitals; while Mr. Erichsen, if his hospital opportunities at University College have been less vast, has a much longer experience both as surgeon, teacher, and author to guide him. Moreover, in the present edition he has had the assistance of a former pupil, Mr. Beck, whose intimate knowledge of all that concerns surgical pathology, has secured for this last edition just that scientific character which we think Mr. Bryant's book rather lacks.

Amply — even extravagantly — illustrated, well printed, and well published, the works before us are Handbooks of Surgery such as any individual author may be justly proud of.

Atlas of Female Pelvic Anatomy; by D. Berry Hart, M.D., F.R.C.P.E. Edinburgh: W. and A. K. Johnston, 1884.—We are ashamed to have left this magnificent atlas so long unnoticed. It is a production of which the Edinburgh school, which has already contributed so much to the advancement of scientific gynæcology, may well be proud. It consists of thirty-seven plates, most of which contain four or more figures, with the necessary letter-press. Some of the plates are derived from the well-known atlases of Pirogoff, Braune, Bourgery and Jacob, while the works of Hyrtl, Schultze, Ruedinger, and others, have been placed under contribution; but a large proportion of the plates are original, and Dr. Hart has shown great skill and much industry in filling up the gaps in our knowledge of female pelvic anatomy which had been left by previous writers. His plates on the anatomical relations of the vagina and uterus and of the bladder and urethra under varying conditions, especially in the genu-pectoral position, are most valuable from a practical standpoint, and should be carefully studied by every writer and theorizer on uterine disorders and uterine mechanics. The literary portion of the atlas is equally worthy of praise. The plates are described in clear and concise terms and the practical deductions from the anatomical facts are sensible and to the purpose.

On the Origin of Anæmic Murmurs; by J. K. Fowler, M.A., M.D. London: J. & A. Churchill.—This is an honest contribution towards the solution of one of the most puzzling questions of the day, viz.:—the causation of anæmic murmurs. Dr. Fowler commences by accepting the view that all murmurs are hæmic, that is to say, produced in the blood stream, and he finds that two conditions are essential for their production, a certain degree of rapidity of the flow, and a constriction or narrowing of the tube in which the blood is leading to a wider part beyond. As to the typical bruit heard at the left base of the heart, he discusses at some length Naunyn's and Balfour's theory, which would give the auricular appendix as its seat, and rejects it on very good grounds. The explanation which he finds meets all the difficulties is that put forward by Chauveau, based on the fact that in anæmia the volume of the blood is reduced, and that the blood vessels at once adapt themselves accordingly, with the exception of the aorta and pulmonary artery, which are insufficiently provided with contractile fibres, and with the exception of the roots of the innominate veins, which are kept fixed by the cervical fascia; hence in anæmia they are relatively dilated when compared with the jugular or subclavian veins. Therefore, at these points the blood stream passes suddenly from a narrow to a wider space, and hence the production of a murmur. Anæmic murmurs audible at the apex are due to regurgitation through the mitral or tricuspid orifice as the case may be, this regurgitation being rendered possible by the dilated state of the ventricle, the natural result of the impaired nutrition of its walls. In the last part of his thesis, Dr. Fowler demolishes the belief that a systolic murmur audible at the angle of the scapula is a proof of organic disease, and quotes a series of cases in which the murmur was so heard, and in which it disappeared completely under treatment. We are indebted to Dr. Fowler for having put this subject before us in a more clear light than we ever remember to have seen it placed before, and we think he has satisfactorily proved his argument.

ABSTRACTS AND EXTRACTS.

PROF. CHARCOT ON ALCOHOLIC PARALYSIS.

In a lecture upon this subject, delivered at the Saltpetrière (*Gazette des Hôpitaux*, August 28th), Professor Charcot expressed himself as follows:—It is to Magnus Huss that the honour is due of having been the first to mention the existence of paralysis in chronic alcoholism; but at the period when the Swedish author wrote, nervous nosology was still too incomplete to admit of its phenomena being scientifically classified. It was in the article on "Alcoholism" in the *Dictionnaire Encyclopédique des Sciences Médicales*, contributed, in 1864, by Prof. Lancereaux, that the first attempt at a description of this form of paralysis was made, the author insisting on the fact that, just as in saturnine paralysis, it is the extensor muscles of the limbs that are affected by preference. In a note appended to this article, Professor Leudet, of Rouen, mentions a new characteristic, painful paralysis, which affects the lower limbs, and most especially at night. He also, being the first person who made an autopsy in these cases, established the fact of the integrity of the spinal cord, and of lesions of the peripheral nerves and of the muscles to which their diseased branches were distributed. Lesions, analogous to those which are produced by dividing a nerve in its course, have also been since met with by M. Lancereaux. It would seem natural that English authors, living in a country in which a considerable amount of alcoholism prevails, should have long since furnished their contingent; but yet it was not until 1872 that Drs. Wilks and Lockhart Clarke drew attention for the first time to a form of paraplegia, which, it would seem, is rather frequently met with in London — even among ladies—and which they designated as alcoholic paraplegia. Long before this came on, there were motor disturbances, and pains recurring in paroxysms, which the patients compared to electrical shocks.

The ætiology of alcoholic paralysis need not detain us for long; but I must insist upon the fact that the prior history of the cases will have to be sought for; as in the early periods it is very difficult to obtain an avowal, while when the affection is constituted it becomes associated with a mental condition to which I will return. Can we incriminate one form of alcoholic drink rather than another? That is very improbable; but what is more certain is that women are far oftener the victims of the disease than men; and the drinkers in high life who take only the choicest spirits, are affected as well as women of the lower classes who can get only the very worst. The manner in which the disease commences is almost always the same. Besides the other symptoms characteristic of alcoholic intoxication (and among which I may specify especially the *nocturnal dreams*, with their night-

mares and frightful visions), one of the first indications of this form of paralysis seems to consist in the appearance of *vivid pains*, which are especially felt in the lower extremities. These pains sometimes nearly resemble those which are met with in the first stage of locomotor ataxy, consisting in prickling formications, lancinating and true fulgurant pains which traverse the limbs, occurring chiefly at night. So that the patients in apprehension of them regard with terror the period of nocturnal repose, which is interrupted by fearful hallucinations during sleep, and by cruel pains during the hours of wakefulness. These pains soon become generalised, occupying *symmetrically* the two lower limbs by preference, and accompanied by cutaneous anæsthesia, they invade the upper extremities; and after a certain time, varying in different cases, give place to a new phenomenon —analgesia. The sensation of cold, of heat, or of punctures, is no longer felt in the limbs attacked, and contact with the ground is not perceived. It is then that motor paralysis supervenes, which is also symmetrical and affects the upper and lower extremities, especially the latter, influencing by preference certain groups of muscles, namely, the extensors. "Look at these two women, seated on chairs slightly raised, and you observe their feet hanging inert, without any possibility of their raising the points. The patella reflex (as observed by Dr. Glynn, in the *Liverpool Medico-Chirurgical Journal*, July, 1883), is abolished. In one of them you find that the extensors of the two forearms are invaded, although in a lesser degree, but in neither of them the muscles of the trunk, as sometimes occurs, are seized. As to the muscles of the face, the alcohol seems always to respect them. On this occasion I wish to draw your attention to a peculiarity, of which these women furnish a striking example. Examine their feet and legs, and you will see the *vaso-motor phenomena* which are being produced—the diffused red or sometimes violaceous colour, and the peri-malleolar doughiness, which almost constantly exists, without the urine furnishing any satisfactory explanation. At other times there are local sweatings of the hands or feet, which appear suddenly and cease in the same manner, or there are alternating paleness and redness. Finally, at the end of a certain time, there are formed amidst these equine-shaped feet fibrous adhesions of the tendons and thickening of the connective tissue which surrounds the tibio-tarsal articulation, adhesions which render the restoration of the normal movements of the feet impossible. If these patients recover, a surgical operation will probably be necessary. You perceive, moreover, that the paralysed muscles are softened, and I am able to inform you that their electrical excitability is notably diminished.

In regard to the mental state of these patients it is the same with them as with the subjects of morphinism, they always when in the early stages of their malady still retain all their lucidity, and stoutly deny its ætiology, while when the paralysis is confirmed the memory is also lost. The progress of the paralysis is essentially chronic, the acute form being very rarely met with, of which, however, Dr. Broadbent has related a case. Its course is progressive and fatal if the drinking habits are not abandoned, or if the intoxication is already of too long a date. In a young man a paralysis of three months' duration disappeared under the influence of treatment by isolation, the suppression of alcohol, and hydro-therapeutics; but as he yielded again to the pernicious habits which a drunkard throws off with such difficulty, a relapse ensued. The *diagnosis* of this form of paralysis is not always easy, especially at an early period, for the pains then observed may lead to the supposition of commencing locomotor ataxy. Pains of the same kind are also observed in diabetes; but of course mistake here will not occur if the urine has been examined. Saturnism also gives rise to paralysis of the extensors, but its causation will be easily detected. It must however not be forgotten that the subjects of diabetes and saturnism may also be the victims of alcoholism. In the *treatment* of these cases they should be isolated as soon as possible, and placed under persons who can be relied upon to prevent their gaining access to alcohol; and by means of hydro-therapeutics and a tonic regimen, results may be obtained, which, however, too often yield to a recurrence of the inveterate habits of these patients when restored to their liberty and their ordinary passions.

OPHTHALMOLOGY.

The Differential Diagnosis of Amblyopia.—The use of electricity as a therapeutic measure in cases of optic atrophy is no novelty, but its use as a means of differentiating between the various forms of amblyopia, and of aiding in the formation of a prognosis in respect of them, has not, we believe, been hitherto broached. The paper, therefore, by M. Darier, in the bulletins of the *Société Française d'Ophtalmologie*, is of special interest. He has discovered that in the normal state, and in amblyopia without any lesion, a luminous impression is produced on the eye by the closure of an electric current of less intensity than one tenth of a milli-Ampère, whilst in cases where the optic nerve is undergoing atrophy a current of much greater intensity is needed to produce the same minimum luminous impression. It was especially in respect of prognosis that he found this test most useful. When in a case of amblyopia, whether the disc was pale or not, the electrical reaction was normal he found that the sight was eventually recovered, and, on the other hand, when the electrical reaction was diminished then the prognosis as to recovery of sight was unfavourable. The *modus operandi* is simple. The positive pole is placed on the forehead, midway between the eyes, and maintained there by an indiarubber band, the negative pole, which is olive shaped, is made to touch the upper and outer part of the eyeball. The circuit is then completed and a sufficiently strong current passed to produce a very evident luminous impression, in order that there may be no mistake and the patient may understand what it is that he is to be on the look-out for. When this has been explained to him, the strength of the current is very gradually diminished until only at the closure of the current there is perceived the very faintest spark, which is not recognised at the opening. In health it is, as has been already stated, only necessary to employ a current of the intensity of one tenth of a milli-Ampère to obtain this, and this serves as the standard whereby to measure varying degrees of impairment. In optic atrophy, sclerosis of the optic nerves, atrophy after neuritis, after embolism or hæmorrhage, the electric spark is only produced by a stronger current. In amblyopia from alcohol or tobacco the electrical reaction is normal, as it also is in congenital amblyopia and in some cases of hysterical amblyopia.

Meningitis after Enucleation of a Shrunken Eyeball.—Dr. A. Benson records a case in the *Ophthalmic Review* for October. The patient was a girl, aged 17, whose eye was enucleated in consequence of an attack of panophthalmitis which had supervened three weeks previously, the eye having been lost eight years before from scarlatina. On the third day after the operation she seemed ill and had a sore throat. Next day she was worse and had a red blush on her left eyelid (the left eye was the one that had been removed) and cheek, spreading over the nose to the right side. This was considered at the time to be of an erysipelatous nature, but next day it was fainter and the day following it had altogether disappeared and the diagnosis of erysipelas was abandoned. Delirium appeared on the fifth day and she gradually grew worse and died in a state of coma on the eighth day. At the *post-mortem* abundant recent meningitis was found. The author attributed the meningitis to the enucleation, but does not lay any stress on the fact that the eye had been suppurating, for a similar occurrence has been known after enucleation for other diseases than panophthalmitis. In a note at the end, he throws out the possibility that the two things might be a mere coincidence. It seems to us that the meningitis might have been a result of the suppuration in the eyeball, and set up before the enucleation, for the patient is said to have been complaining previously of headache, and the onset in such cases is often exceedingly insidious. But there is also the possibility that the patient really had erysipelas on the third day after the operation, and meningitis, as is known, is not so very uncommon a result of erysipelas.

Uræmic Amaurosis.—Dr. Friedenwald, Professor of Diseases of the Eye, Baltimore, terminates a paper read at the Baltimore Medical Association (*Philadelphia Medical News*, August 9) with the following conclusions:—(1)

When amaurosis suddenly overwhelms a patient in both eyes, with no ophthalmoscopic change, uræmia should be suspected; even in the absence of all other prominent uræmic symptoms. (2) It will continue only as long as the uræmia exists, and will disappear when the function of the kidney is re-established. When permanent injury to sight is observed, it may be due to pre-existing retinal change, not at all uncommon in Bright's disease. (3) The chances of a full return of sight are somewhat impaired when the patient has been the subject of recurring attacks. (4) By exhibiting jaborandi and other means of inducing free diaphoresis, and by free purgation, a catastrophe may be averted in the general forms of uræmia, but when it occurs in pregnancy, premature labour is the only remedy which promises safety to the patient.

Anæsthesia of the Optic Nerve.—M. Dianoux communicated to the French Ophthalmological Society a paper on this subject which appears in their recently issued *Bulletins*. It is an affection which only occurs in women, or in men who are, so far as their nervous system is concerned, women by nature. The onset is sudden, often during sleep, there are no premonitory symptoms, and there is no pain though there is often a sense of a dull weight in the head. From the first the blindness is usually absolute, and may last an indefinite time; it rarely effects both eyes, the eyes are equally liable to be attacked. Examination of the eye yields absolutely negative results. It may undergo spontaneous cure or it may persist for an indefinite time unmodified, or it may gradually pass into atrophy. The diagnosis, he says, is easy; the only difficulty which could arise is with what he calls the weakened form of neuritis which betrays itself by a persistent discolouration of the disc. The prognosis is as a rule favourable, and the cases that are most favourable are those of the longest standing where the blindness is absolute; if atrophy comes on, or if the onset is gradual, the outlook is not so good. Youth, a delicate constitution, a lymphatic temperament, uterine diseases, and hysteria constitute the best known predisposing causes. The author regards anæsthesia of the optic nerve as only a very slight form of the morbid process which leads to neuritis and atrophy of the disc after ischæmia. There is some circulatory disturbance followed by plastic exudation within the sheaths of the nerve, leading to a modification of the myelin which renders it a bad conductor. This exudation may be absorbed without any traces being left behind, or it may organise and compress the capillaries leading to permanent discolouration of the disc; or if the exudation is more abundant, it may lead to œdema of the disc, and ultimately to organisation of the new products "choking" the vessels and nerve fibres. By way of treatment he recommends tonics, quinine, iron, and cod-liver oil, the hypodermic injection of strychnia locally, and the use of the continuous current; the uterine functions should be attended to.

Foreign Bodies in the Eye.—Writing on this subject, Dr. Agnew, of New York, relates an interesting case of a gentleman who for a year or more had suffered from conjunctivitis, his eye having on several occasions been examined in vain for a foreign body. When he came to Dr. Agnew the eye revealed at first no other appearance on careful examination than slight redness of the conjunctiva. But there was something in which the sense of a foreign body in the eye was exaggerated that led him to suspect that there might be a single inverted eyelash. Ordinarily it felt as if some irritant was there which was tolerable, but suddenly there would be something like a cramp-like action of the eyelid, the irritation growing rapidly worse and the eye filling with tears, with temporary relief. The eyelashes were nearly colourless, but on examining the edges of the lids for inverted eyelashes a slight curving of the inner angle of the innermost edge of the lower lid was observed, and a tear having been allowed to gather upon this inner edge a difference in refraction was seen and a delicate eyelash was found springing from the inner edge. The spasmodic action of the orbicularis had embedded the eyelash in the eyelid. On its removal all trouble ceased. An operation will afterwards be required to destroy the follicle which produced the misplaced eyelash.—*Boston Medical Journal*, August 28.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, October 24th, 1884.

Sir Andrew Clark, Bart., M.D., President, in the Chair.

Myxœdema.

Dr. James Anderson read the following account of a case shown by him at the close of last session. The patient, Jessie A., an unmarried woman, aged 40, came to Moorfields Eye Hospital, in February of this year, as an out-patient, under the care of Mr. Gunn. She complained of swelling of her eyelids, which she had noticed gradually increasing in degree for the past nine years. The patient is one of a family of nine, none of whom have shown any symptoms resembling hers, her four sisters, all older than herself, being in perfect health, one of them, who was seen, contrasting markedly with the case. The patient's father died in old age; her mother at 57 years with hæmorrhage from the mouth and coffee-ground vomiting. There is no history of gout or hæmophilia in the family. Up to the age of 20 the patient lived at home in Liverpool. Thereafter she was for twelve years nurse and maid in a family in Liverpool, and for the last eight years she has held a similar position in a family living in Kendal. She has always had a good home, with plenty of fresh air and exercise, and freedom from anxiety or exposure. For the first twenty-three years of her life she enjoyed excellent health, when, seventeen years ago, she had two teeth extracted, the bleeding from which lasted twenty-four hours, and was very copious. She says she has never been well since, and to this she attributes all her trouble. No marked symptoms, however, were noticed by those around her till twelve years ago, since which time they have steadily increased, with occasional slight remissions. The patient presents the characteristic facies of myxœdema as described by Dr. Ord, the defined scarlet flush of cheek and nose contrasting markedly with the waxy pallor round the eyes and mouth. The loose, baggy, almost translucent lids, the dry brawny cheeks and thick blue lips, with the swollen, red expressionless hands and deliberate speech and volition, make a group of symptoms which only the comparative rarity of the disease can have prevented from earlier recognition, and which, once seen, cannot be forgotten. Her heart and lungs are sound, her digestive system somewhat defective. Her molar teeth have crumbled away bit by bit; her gums are extremely vascular and hypertrophied, and bleed freely, so that her mouth is frequently filled with blood in the morning. Her extremities are always cold, and her axillary temperature always sub-normal. Her urine varies much in quantity, from scanty to copious, but, scanty or copious, the total amount of urea is invariably deficient, only rising to half the normal amount, and frequently being as low as one-fourth. It contains neither sugar nor albumen. She began to menstruate at the age of 14, and has menstruated regularly since. The amount has always been copious, but sometimes after the discharge has ceased it commences again, and may last for three weeks, leaving her very exhausted. With the exception of the deliberate speech, thought, and volition, there are only two points to be noted as to her nervous system. The first is the constant recurrence of a nervous restlessness, which she terms "fidgets," so that she dreads night coming on, as she cannot lie still. The second is her ocular condition. She is slightly hypermetropic, but with the correcting lenses has perfect vision. Under atropine there is seen to be slight peripheral opacity of the left lens, otherwise the media are normal. In neither eye, however, is the retina normally transparent, a haze surrounding the vessels, especially in the neighbourhood of the disc. The appearances differ entirely from those of a past neuritis or retinitis, and, as has been said, do not interfere with perfect vision. Dr. Stephen Mackenzie kindly admitted her under his care at the London Hospital, and to him Dr. Anderson was indebted for detailed observation during her stay there. As regards

treatment, the usual tonics seemed to have no effect whatever either before or after her entering the London Hospital. A fortnight after admission she was put upon half-drachm doses of tinct. jaborandi, which she continued till she left the hospital, three weeks later. Of objective improvement, there was none, or almost none, but she expressed herself as feeling greatly better within a few days after commencing the jaborandi, and this subjective improvement was accompanied by a steady and marked increase in the amount of urea excreted, which doubled itself during the period, and was at its maximum on her discharge from the hospital. Dr. Symington, of Wolverton, had since had her under his care for severe menorrhagia, and he stated that she seemed in very much the same condition as when last seen. The points of interest in the case seemed to be (1) the history of commencement from a severe hæmorrhage, combined with the present hæmorrhagic tendency of the patient; (2) the occasional state of nervous restlessness, so apparently incompatible with the general character of the disease; (3) the retinal condition, which was peculiar, whether characteristic of the disease or not; and lastly (4) the effect of jaborandi on the subjective condition of the patient, and on the amount of urea excreted by her.

The PRESIDENT enquired whether the whole vascular system had been found healthy in Dr. Anderson's case and also whether any other cause had been present which could possibly account for the increase in the quantity of urea that had been observed.

Dr. ANDERSON replied that although there had been no valvular lesion of the heart, its action had been very feeble throughout. No other cause had been found to explain the increased excretion of urea, which he believed to have been due to the action of the jaborandi.

Dr. FELIX SEMON referred to a series of cases which he had brought before the Society a year ago in which Dr. Kocher, of Berne, had found that a train of symptoms not distinguishable from those observed in myxœdema had followed the operation of complete extirpation of the thyroid gland. In cases of only partial extirpation no such symptoms had occurred and in one instance the presence of a small supplementary gland had apparently been sufficient to account for their non-appearance in a case of complete removal. At that time he had made the suggestion that there probably existed some close relation between these cases of goitre and the conditions of cretinism and myxœdema. Another important symptom had been noted at that time, viz., the fact that in some of the young cases an apparent arrest of development of the body had occurred. He was now in a position to supply some information upon this point which formed a valuable connecting link in the history of the affection. Dr. Paul Bruns, of Tübingen, had recorded a case in Volkmann's Klinische Vorträge of a patient, still living, who had undergone complete removal of the thyroid eighteen years previously. Shortly after the operation, the boy, who had hitherto been bright and healthy, became very quiet and reserved, but his mental faculties continued fairly active. He was now living, a dwarf and a cretin. His body in appearance was that of a boy, measuring only 127 centimetres, his head however did not seem to have undergone a similar arrest of development. In every respect the description of his physical condition corresponded with that of a typical case of myxœdema. The peculiar thickening of the subcutaneous tissues, the slow speech and enfeebled intelligence and all the signs of mental and bodily degeneration were well marked. The hair on the head was very thin, the beard altogether absent. The pubic hair scanty, the genitals, on the other hand, well developed. The most prominent degenerative symptoms had only declared themselves within the last few years. The case formed the most complete illustration of the consequences of removal of the thyroid gland. With this evidence now given it seemed to be clearly established that it was to the complete absence or atrophy of the gland that the disease was due, and not to any direct lesion of the sympathetic fibres as had sometimes been suggested.

The PRESIDENT observed that it did not seem yet to be clearly established whether it was the absence or the removal of the gland which gave rise to the disease. If due to the latter cause we should expect to find myxœdema in every case of wasted thyroid.

Dr. HALE WHITE mentioned a case in which temporary improvement had been noted after nitro-glycerine by Dr. Mahomed. The patient subsequently died and the *post-mortem* examination had proved the complete atrophy of the thyroid gland. The sympathetic ganglia in the neck had been found to show similar changes to those seen elsewhere in the body, but no direct evidence of an inflammatory change or other condition pointing to any causal relation with the wasted thyroid.

The PRESIDENT called attention to the fact that a committee was now sitting to investigate the subject and reminded members who might have observed any cases, that accounts of them would be gladly received even if they were not otherwise put on record.

Dr. HADDEN observed that the occurrence of hæmorrhage had already been noted in these cases. Cataract had occasionally been seen also. Having had an opportunity of seeing Dr. White's preparations he was inclined to think that there were some evidences of neuritis present in them.

The PRESIDENT added that in all his female cases of myxœdema there had been menorrhagia.

Dr. ANDERSON in reply stated that the intelligence of the patient had remained unimpaired throughout. He thought that the retinal changes had not been hitherto observed.

Congenital Dislocation of the Patella.

A paper by Mr. GOLDING BIRD on a case of this nature was read by Mr. R. J. GODLEE. The case was one of a girl, aged 11, who for six months had been troubled with displacement of the patella on to, and afterwards quite outside, the external femoral condyle. On bending the knee or straightening it the patella resumed its normal position with an audible click. There was some pain, but the affection was more disagreeable than painful. She walked well, but with stiffened knee. The displacement was first observed after a fall. The author showed the cause of the displacement to be due to structural shortening of the quadriceps extensor following paralysis of the muscle—probably infantile—and had tried, as a rational mode of treatment, tenotomy of the ligamentum patellæ; but the only gain was the disappearance of the click, the dislocation occurring as before. He thought the name paralytic dislocation preferable to congenital. His case agreed with the description given by Heuter. The case had been exhibited at the Society early in the year.

Mr. R. J. GODLEE referred to a case which he had shown previously in which the injury had not been observed for a long time after its supposed cause. He did not altogether agree with the author of the paper with respect to the association of the lesion with infantile paralysis. If the shortening were really due to that cause, we ought to see it more frequently than we did.

Skin Eruption due to the Administration of Bromide of Potassium.

Dr. CARRINGTON read notes of a case of this condition and showed a drawing. There was no history or appearance of syphilis in either of the parents. An elder child when three months old had suffered from impetigo capitis. The patient was born quite healthy, and with trivial exceptions remained so up to about ten months. At that time he began to suffer from convulsions and symptoms which seemed to point to meningitis, and he was treated with an ounce and a half mixture, containing one scruple of bromide of potassium, of which one drachm was given every four hours; this was for a time administered every three hours, and the ammonium was for a time substituted for the potassium salt. This was persisted in for about seven weeks. The eruption appeared in the form of minute red papules, which in the course of three or four days attained the size of penny pieces. The parts affected were the buttocks, legs, thighs, and, to a smaller extent, the scalp and face. When first seen the spots were of variable size, from a pin's head to a penny piece. The smaller ones were of a bright crimson colour and smooth, the largest ones of a dark brownish hue, circular or elliptical in form, with a sharply defined edge of at least one-eighth of an inch thickness. They were of a spongy texture without the least trace of fluid contents. The treatment adopted

by the practitioner under whose care the child came was half a grain of potassium iodide and one minim of liq. arsenicalis three times a day. In a fortnight there was very great improvement. Some of the spots had disappeared and were represented only by pinkish discolouration, and the others were much shrunken and nearly level with the skin. No new ones had appeared. The child made an uninterrupted recovery, and when seen two months after, all the lesions had disappeared with the exception of two or three on the scalp and face, and these took the form of dried up scabs. The eruption was never moist from beginning to end. It was worthy of note that an eruption due to the bromide should disappear under the administration of the iodide of potassium.

Dr. Duckworth observed that the general effects of bromism were usually most marked upon the sebaceous system. Some years ago Dr. Cholmeley brought forward a case which showed very clearly that these structures were chiefly affected, a confluent form of acne being produced which appeared to be peculiar to bromism. The rashes produced by iodide were not of necessity sebaceous, as had often been shown by microscopic examination.

Dr. Stephen Mackenzie mentioned a case already recorded in which Mr. Tay had been enabled to examine the patches with the microscope, and had found the inflammation to be limited to the neighbourhood of hairs and sebaceous follicles. Occurring so frequently in children it would appear to be favoured by some special conditions prevailing in young skins. It was an important point in diagnosis to remember that the rash usually appeared some time after the administration of the drug and might continue for a long time after its withdrawal.

Dr. Barlow corroborated this observation and referred to an error in some former teaching which maintained that the cessation of the drug was followed by the disappearance of the rash. He thought these rashes were really due to some idiosyncrasy of the patient with respect to the elimination of these salts. In a case of his own in which the drug had been discontinued for three weeks, Dr. Stevenson had been able to detect the salts in the urine. As a rule, however, these salts appeared to be eliminated very rapidly. There was no doubt that very small doses were sufficient to produce the rash in some cases.

Mr. Morrant Baker thought that iodide rashes not unfrequently appeared in cases of advanced renal disease. In such cases, however, the patients were usually of adult life.

The President thought that diseased kidneys might at times retard the excretion of drugs.

Dr. Stephen Mackenzie added that a diseased state of the kidneys was not always present, since he had himself watched a case throughout its whole course in which those organs were perfectly healthy.

Nephrectomy in an Infant.

The following case was read by Mr. Godlee:—The child, a boy, aged 1 year and 10 months, was admitted under his care at the North-Eastern Hospital for Children in August, 1883. The tumour was first noticed in June, 1883, and was growing rapidly. It was on the right side, and measured 4 inches in the long diameter and about 2 in the short. It was freely movable, and manipulation caused no pain. There were no urinary symptoms at all. The kidney was removed by the lateral abdominal (Langenbuch's) incision, and was readily accomplished as there were no adhesions to surrounding structures. The cæcum and the duodenum were the only pieces of bowel exposed. One large vein which ran over the tumour alone required ligature. There was no hæmorrhage of consequence, and the whole operation was concluded in half-an-hour. The child had no symptoms of any kind after the operation. It ate and slept as well the next day as before, and the temperature only rose to 99° once, the day after the operation. It left the hospital well six days later. It continued well till February, 1884, when recurrence took place in the right iliac fossa, the tumour rapidly increased in size, passing down into the scrotum, and the child died soon after. Mr. Godlee mentioned eight other cases which had been recorded, showing that five of them had died of the immediate result of the operation, two had recovered well but died afterwards of a recurrence, and one was well when last heard of, but notwithstanding the unsatisfactory nature of the results, he argued that, seeing how hopeless the condition is if left alone, we should endeavour to remove these tumours in a still earlier stage, at all events until it is proved that even this proceeding is invariably followed by a fatal result. He particularly, however, pleaded against attempting the removal of the very large growths which are not unfrequently met with, showing that they will almost certainly have involved surrounding structures, and that thus while no good can follow the operation an immediately fatal result is probable. The tumour weighed about one pound, and was in structure a mixed sarcoma, most of the cells being roundish or oval, but some spindle-shaped. This is probably the usual composition of these growths, but another class was mentioned in which striped muscular fibres occur. The latter are probably congenital, and often affect both kidneys, and are thus not favourable for surgical interference.

Mr. Barwell considered that the society was much indebted to Mr. Godlee for his paper. He doubted whether the operation for removal of a sarcomatous kidney would ever become established as a uniform practice. In the early stages of the disease it was difficult to be sure of the diagnosis. He thought that the incision by the side of the rectus was to be preferred to that of the median line. To ascertain the exact position of the colon was often a point of difficulty.

Mr. Meredith related the particulars of a case in which he had removed a large sarcomatous tumour from the abdomen of a girl. The growth had been very rapid and the tumour was soft in consistency and could not be removed without tearing the capsule; the pedicle was transfixed and tied in two portions, but at the moment of doing so the child's breathing became very rapid, and the pulse failed for a short time. The patient died three days afterwards and it was found that the vena cava had been completely occluded by the ligature. The end of the right ureter was found distended to the size of the little finger with urine, although there was no direct evidence as to how it had become filled. No secondary growths were found in the glands or in the liver, but the lungs were studded with new growths, showing the extreme rapidity of the infection in such cases. He thought that it was most important to secure the end of the ureter to the edge of the wound, instead of returning it to the abdominal cavity. The tumour in his case was a round-celled sarcoma and weighed three and a half pounds. The urine had always been normal.

Mr. Knowsley Thornton agreed with Mr. Barwell as to the doubtful value of the operation. Looking at the extreme frequency with which secondary deposits took place in other organs, he thought that the issue must always be uncertain. Unsuccessful cases of this kind only had the effect of increasing the mortality of abdominal section, a result which greatly prejudiced the aspect of abdominal sections for other purposes, and which was used as an argument in favour of nephrectomy by the lateral incision. He thought that nephrectomy by abdominal section was likely to become one of the most successful operations in surgery. In his own cases he had obtained very favourable results.

Mr. Barker asked which layer of the meso-colon was usually opened. He thought that the colon was generally so displaced that the external layer was exposed. In one case he had opened that layer successfully.

Mr. Meredith observed that in his case he had opened the external layer.

Mr. Godlee in reply referred to the accidental inclusion of the vena cava in the ligature and mentioned a similar case where the renal vein had been taken up in the same way. He thought that this operation should be confined to cases of small tumours. Mr. Thornton's preference for abdominal section was perhaps in some measure due to that gentleman's familiarity with abdominal surgery, but he thought it doubtful whether the operation would be advisable in cases of calculous pyelitis.

The following living specimen was exhibited:—

Pigmentation of the tongue, by Dr. J. K. Fowler.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 28TH, 1884.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Excision of the Head of the Femur for Spontaneous Dislocation.

Mr. WILLIAM ADAMS contributed an example of spontaneous dislocation of the head of the femur on the dorsum ilii, occurring during the progress of rheumatic fever, in a boy eleven years of age. The patient was admitted into the Great Northern Hospital on the 4th March, 1882. After two unsuccessful attempts at reduction, having previously divided the adductor longus tendon, he had excised the head of the femur on the 29th March, making a ⅃ shaped incision with the long arm two and a half inches in length directly over the head and neck of the bone; and the small arm, one inch in length, transversely over the head of the bone, which was at once exposed uncovered by capsular ligament, and the articular cartilage in a healthy condition. It was found that the capsular ligament had been ruptured, and the torn margins of the rent passed on either side of, and closely embraced, the neck of the bone. After dividing the margins of the capsular ligament he passed his small subcutaneous saw to the neck of the bone, and cut through it a little below the margin of the articular cartilage. The detached head of the femur was then drawn out of its position after some slight adhesions had been cut through. The round ligament preserved its normal connection with the head of the bone, and was adherent to the articular cartilage, having been divided with the saw a little below the head. The wound progressed favourably without much suppuration, and on the 1st June was completely closed. On the 14th June the patient was allowed to walk on crutches, and on the 1st October without crutches. The limb was perfectly straight, and the movement at the hip-joint freely permitted in all directions. The author observed that in all the cases of spontaneous dislocation which had fallen under his observation the head of the femur had been dislocated on to the dorsum ilii. These he arranged in three classes:—(1) Dislocation occurring during the progress of fever. (2) Dislocation occurring in cases of paralysis, generally infantile, but occasionally in the adult. (3) Dislocation occurring in the first stage of hip-joint disease without suppuration. Excision of the head of the femur in its simplified form as above described the author believed would be found applicable to all these cases, unless sufficient freedom of motion be obtained by tenotomy and passive movements. He also thought it might be applicable to some cases of fibrous anchylosis of the hip after disease when the limb remained contracted, as free motion was seldom obtained by simply dividing the neck of the bone. The cases of dislocation of the hip brought before the Society by Mr. Morris were alluded to, and also the case published in "St. Thomas's Hospital Reports" by Sir William MacCormac, in which he excised the head, neck, and great trochanter in a case of unreduced traumatic dislocation of the hip into the thyroid foramen. The firm adhesions, and, in some cases, new bone thrown out in cases of traumatic origin as the result of the inflammation following the injury, the author observed, distinguished these cases from cases of spontaneous dislocation occurring during the progress of fever, or in cases of paralysis which had chiefly fallen under his observation.

Mr. HULKE had not quite understood why the operation was undertaken.

Mr. ADAMS replied, that when the boy first came under his notice, the limb was in bad position; it was painful and useless, while at present the boy could walk well, and was quite free from pain.

Mr. BARKER referred to a case very similar to Mr. Adams', in which, after cutting down on the displaced femur, he had been able, without much difficulty, to replace the head of the bone. He particularly enquired as to the manipulation which Mr. Adams had used.

Mr. BARWELL had had a case under his care. The displacement had occurred two years previously. He had tried Bigelow's method — reduction by manipulation—without success, and then he applied extension with the pulleys, and this too had failed. His patient returned into the country without having obtained relief. When seen three years later, she was able to walk very well, and there was not more than half-an-inch shortening. He agreed that excision was not the best treatment. If reduction could not be accomplished, extension with abduction of the limb was indicated.

Sir WILLIAM MACCORMAC gave some further details of his case, to which Mr. Adams had referred. The success of his operation had been complete.

Mr. R. W. PARKER agreed with Mr. Hulke that the cases shown were admirable instances of successful excision; but he questioned whether excision was necessary in the majority of cases. Probably, had more time been given, a false joint would have formed, and the final result would have been even as good as in Mr. Adams' case. He was not familiar with the classes of cases, Nos. 2 and 3, given in the abstract.

Mr. SPENCER WATSON had seen the case, and he felt that if the Fellows who had spoken had had the same advantage, none would have doubted the expediency of Mr. Adams' operation.

Mr. BOWLBY remarked the absence from Mr. Adams' classification of cases of the pyæmic variety.

Mr. MORRIS spoke to the great deformity in the present case, and congratulated Mr. Adams on his successful operation. Nevertheless, he would not say whether by dint of time and perseverance in treatment an equally good result might not have been obtained by other means. He thought that subcutaneous osteotomy of the neck of the bone would be a preferable proceeding in many cases, not with a view to get movement, but in order to secure parallelism of the limbs.

Dr. RAWDON, in reply to a question, said that in his case there was less limping shortly after the child's discharge from the hospital than now, and that much of the limping had come on during the past twelve months.

Mr. ADAMS replied.

Dr. Rawdon's patient, who had been specially brought up from Liverpool, as well as Mr. Adams' case, were exhibited.

A Case of Cirsoid Aneurysm on the Dorsum of the Foot.

Dr. WALTER EDMUNDS communicated the case of a man, aged 29, who had an aneurysm on the dorsum of the left foot. Pulsation could not be completely arrested by compression of the anterior tibial artery. Esmarch's bandage was applied, but without benefit. The aneurysm was dissected out, seven communicating vessels requiring ligature. The patient recovered. The various methods of treatment were discussed, and digital compression having failed or being unsuitable, excision was recommended.

Mr. HULKE said he had been consulted about this patient; and the idea of excising the aneurysm had never occurred to him. He was not quite clear as to the nature of the arterial condition, and he found it very difficult to control pulsation. He had seen the man since his operation, and found the vessels of the limb in a very dilated and tortuous condition.

Mr. EDMUNDS replied that the aneurysm was a sacculated one, but not of the ordinary kind.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, OCT. 17TH, 1884.

Dr. T. O. DUDFIELD, President, in the Chair.

THE first meeting of the session was held on October 17th, when twenty-eight Medical Officers of Health were nominated for election as members, and five other persons as associates.

President's Address—Metropolitan Sanitary Administration.

The PRESIDENT delivered an inaugural address. After congratulating the Society on the complete success of the Conference at the International Health Exhibition, managed by the Society conjointly with the Sanitary Institute and Parkes' Museum, and referring to the services of Dr. J. Northcote Vinen, who had resigned the post of hon. secretary after more than twenty years' service, he proceeded to deal with the subject of his address. First of all he sketched his idea of what a London Government Bill should be, in an abstract of the address delivered by him in the previous session, and then compared the sketch with the scheme of the Home Secretary. There was so much similarity in the two that he could not consistently enlist himself in the ranks of the opponents of the Bill. The Society, moreover, while declining to express any opinion on the Bill generally, had recognised in its provisions a prospect of attaining "much needed unity and uniformity in sanitary administration." After referring to the grounds of opposition raised by the Corporation and local boards, and taking into consideration the probability of the Bill not meeting with acceptance in Parliament, he proceeded in the second place to suggest an alternative scheme. The Corporation might be left alone, or, under a reformed constitution, allowed to rule over the city; the Metropolitan Board of Works being placed, in regard to the rest of London, in the position assigned in the Bill to the new Common Council. The vestries would be maintained in their present position as local executive bodies, subject to efficient control by the Board, so as to secure the desired unity and uniformity. Reference was made to the mode of election of members of the Board and vestrymen, and to plans by which this might be amended. Whatever scheme might be adopted—that of the Government or such a one as he suggested—the Central Board, as the chief sanitary authority, should be endowed with the powers and duties with respect to infectious diseases, provision of hospitals and ambulances, &c., at present exercised and performed by the Asylums Board. It was possible, of course, that no Bill might get adopted. The Bill of the Government might be rejected, and they might refuse to bring in another. He proceeded to ask, therefore, in the third place, whether it was inevitable, in either contingency, that London should wait indefinitely for an instalment of reform in its sanitary administration? Reciting the powers already existing which, *inter alia*, enabled the Metropolitan Board to make by-laws, in regard to a variety of matters, he contended that if such powers were exercised, covering as they did pretty well the whole field of sanitary administration, London Government might be conducted in a fairly satisfactory manner by the existing authorities. He stated his reasons for believing that the framers of the Metropolis Management Act must have contemplated a close union between the Board and the vestries, such as he advocated, and cited several sections of the Act which enabled the Board to make by-laws, for regulating the drainage of houses, disposing of refuse, &c., and to make orders for the guidance, direction, and control of the vestries in regard to sewerage. Theoretically, nothing more, nothing better could be desired, provided only that the vestries carried out their part in the matter by loyally enforcing the by-laws. But no such by-laws for regulating drainage and disposing of refuse were in existence, while, with regard to sewerage, no definite principles had been laid down, each local board having its own views on the proper size and material of sewers, the differing plans being equally approved by the Board. Having in view the probability that no opportunity of dealing with Metropolitan Government would be forthcoming next session, a time of grace was afforded, which, if wisely used in efforts to put existing powers into force, might avert the necessity for any material change. But if the vestries, for instance, desired to prolong their rule, they must prove their utility; and more than one opportunity of doing this was offered. For example: they must deal with the dwellings of the poor in regard to the state of which the public conscience had been greatly stirred; as witness the formation of the Mansion House Council and the appointment of a Royal Commission. The power to make regulations for houses let in lodgings or occupied by members of more than one family, must be exercised. The Society had framed standard regulations for their guidance in 1879. Few of them had exercised the powers, but if they had sinned by their neglect it was in good company, as the Local Government Board had failed until within the last few months to exercise its power, conferred in 1874, of declaring the enactment of Sec. 35, Sanitary Act, 1866, to be in force in all parts of the metropolis. The poor, no doubt, would have to pay an increased rent for their improved dwellings, but this could not be helped. That Parliament was not altogether unwilling to trust the vestries was shown by the Act of last Session by which they were re-constituted as "local authorities" with respect to bakehouses. The Society had framed useful regulations for the guidance of sanitary authorities in supervising bakehouses. Illustrations of the value of by-laws were cited, special reference being made to those made by the Metropolitan Board with regard to foundations and sites of buildings (under the Building Act, 1878); to offensive trades (under the Slaughter Houses (Metropolis) Act, 1874), and to dairies, cowsheds, and milkshops, under the Dairies, &c., Order of 1879. Incidentally the Slaughter Houses Act had led to a great reduction in the number of private slaughter-houses, while the offensive businesses regulated had been conducted, subject to definite regulations enforced by an irreducible penalty for any breach, in a satisfactory manner, quite impossible when they were subject to the general law of nuisances only. The Society had taken a leading part in promoting sanitary reform in connection with offensive trades, dairies, and cowsheds. The legal status of the local authorities, and of their medical officers, in relation to the regulated businesses, was unsatisfactory. They should have statutory powers to carry out the by-laws under the general supervision of the Metropolitan Board. Regulations made by the vestries providing for the periodical removal of manure were rendered nugatory by the reluctance of magistrates to inflict adequate penalties for breaches. Some limits should be set to the power of magistrates to reduce and remit penalties for offences against sanitary laws. Good work might be done under the water regulations if the sanitary authority had concurrent power with the water companies to enforce them. The Local Government Board had urged the vestries to bring about "severance of all connections of waste-pipes of cisterns with drains," but this, as it had been pointed out to the Board, could be done universally by the companies only, viz., by the exercise of their power under regulation 14. The companies had responded in some measure to the representations of the Board by issuing a notice to their customers, calling attention to the advice with regard to waste-pipes, cleansing of cisterns, &c., given by Sir Francis Bolton, the water examiner, in his monthly and annual reports, and such advice was to be endorsed in future on the companies' call-papers. The power of water companies to cut off water for non-payment of rates should be totally abolished. There was a variety of powers under Nuisances Removal and Sanitary Acts which should be put in force to which attention had been drawn by the excellent digests prepared under the direction of the President of the Local Government Board. When all existing powers had been exhausted Parliament would confer whatever additional powers were proved necessary. Among others, the Metropolitan Board should have that of fixing upon sites for mortuaries and disinfecting chambers, and for baths and wash-houses upon a plan so arranged as to provide for the needs of the population irrespective of local boundaries. In course of time the powers of the Asylums Board would naturally devolve upon the central authority. It would be well if any one of the sanitary authorities would set a good example by getting the Sclater-Booth model clauses for the notification of infectious diseases embodied for use in its own district, in a Local Act. Having so far dealt with "sanitary powers," the address next dealt with "sanitary difficulties," which were partly inherent in the law itself, and partly incident to the method of its administration after this had passed from the sanitary to the judicial authority. There

was no power to punish the person who created a nuisance, however grave or long-continued it might be, and it took an inordinate time to get a nuisance abated, when the author of it proved recalcitrant. The public, naturally supposing sanitary law to be the embodiment of common sense as applied to matters of public health, were too apt to regard the sanitary authorities as all-powerful but apathetic, and to lavish blame upon them for not abating nuisances immediately upon discovery or report. But the law was too considerate of the rights of property, and too leisurely in its movements, to allow of this being done. Nuisance-mongers knew that they ran little risk by long-continued disregard of sanitary notices. By way of illustration the mode of procedure in cases when the authority of the Vestry was disregarded was sketched. It was shown that weeks, and in an extreme case, months, might elapse before a nuisance could be abated; the dwellers in the insanitary house, meanwhile, suffering in health and comfort. They were liable, moreover, to be made to pay compensation to the aggrieved landlord, in the shape of increased rent, for the trouble and expense to which he had been put. The remedy for the state of things described was two-fold. The magistrates should have power (as outside London they have, under Sec. 96 of the Public Health Act, 1875) to inflict, by their order, a substantial penalty on the author of the nuisance, and the vestry should have power to enter upon the premises to abate the nuisance when it was certified by the medical officer to be dangerous to health, and the time allowed in the vestry's notice for its abatement had expired. Such powers, which would lighten and make easy the duties of magistrates and sanitary authorities, would seldom have to be exercised, for law breakers would soon discover that their tricks of delay and resistance were alike useless and unprofitable, and so all reasonable notices of the sanitary authority would be respected and obeyed. Reference was made, in conclusion, to cases that had come before the courts, in which tenants had proceeded against their landlords to recover damages for injury to health, resulting from drainage and other structural defects. Decisions had been given in their favour and were of importance as precedents. It was to be expected, therefore, that in course of time bad landlords would find out that it was dangerous, in more senses than one, to let an insanitary house. There should be an implied warranty when a house was let that it was fit for human habitation, and before long he hoped this would be established as a principle of English law.

On the motion of Dr. Bristowe the thanks of the Society were given to the President for his address, and on the motion of Mr. Shirley Murphy, seconded by Mr. F. M. Corner, it was resolved to print the address and forward it to the Local Government Board, the Metropolitan Board of Works, the Vestries, and District Boards, and other parties interested in the question of London Government.

The proceedings of the meeting were brought to a close by the presentation of a testimonial to the retiring Honorary Secretary, Dr. Vinen, in the shape of a handsomely engrossed and framed copy of a resolution passed at the Annual Meeting held at the International Health Exhibition in June.

GENERAL CORRESPONDENCE.

THE LATE MR. RABBETH.

[To the Editor of the Medical Times.]

Sir,—Everyone who has read the account of Mr. Rabbeth's death must have admired the self-devotion with which he sacrificed his life to save that of a patient. But surely self-devotion in this case was carried too far. A surgeon has to run many risks in following his profession, but in this instance there was more than a risk. To suck out the membranes of diphtheria was to incur all but certain death. Could not the membranes have been removed by means of a suction-syringe? If not, it is high time that an efficient instrument for that purpose was invented.

I am, Sir, yours &c.,

October 23rd. J. D.

A SUGGESTION.

[To the Editor of the Medical Times.]

Sir,—I have for some time been engaged in experiments and trials of various antiseptics, carbolic acid, eucalyptus, thymol and iodoform, and since reading your article on Sir Joseph Lister's address, have made some on the following, which I think would be worth a trial. The modification which I venture to propose is as follows:—Corrosive Sublimate, ℥ii; White of Egg, ℥vi; Barff's Boroglyceride, ℥ xii; Distilled Water, ℥ cxxv. M. The strength of corrosive sublimate in this solution will be nearly 1 to 500. As it would be almost impossible to add the precise quantity of albumen to render the bichloride of mercury unirritating and safe, it is desirable to add an excess of albumen; but an excess of albumen on the other hand, if allowed to decompose, would be objectionable in the extreme, to obviate which I suggest the introduction of boroglyceride which, without in any way interfering with the action of albumen, whether used from blood serum or white of egg, will guard against the products of decomposition from the use of an excessive amount. The proportion of mercury used in the compound may be increased or diminished as occasion may require, and all are non volatile. Charpie, cotton wool, or oakum saturated in such a solution would in my opinion form one of the best antiseptic dressings that I have yet seen, and for the chief part of this I am indebted to Sir Joseph Lister, my only contribution being the introduction of boroglyceride.

I am, Sir, yours, &c.,

JOSEPH BULFIN, B.A.,
M.B., B.Ch., T.C.D.

Warrenpoint, Co. Down.

INVENTIONS AND IMPROVEMENTS.

THE CELLOIDIN PROCESS.

The importance of any method which protects the tissue elements of an organ from falling out during manipulation and thus producing errors and deficiencies in pathological investigations, induces us to say a few words on the method of embedding in celloidin, a method which as yet has hardly received the recognition it deserves. The seeming elaborateness of the process is purely superficial, for there is, even at first, but little difficulty in its manipulation, and it has certain special advantages, one of the chief of which is that specimens once embedded in the celloidin may be left there for an indefinite period without suffering deterioration; but its principal recommendation is that a thin solution of celloidin finds its way into all the interstices of a tissue and when it becomes set by a mixture of methylated spirit and water, the adjacent parts are welded together so that there results a section of celloidin holding together all the parts of the specimen. Now, in certain tissues as for example, spinal cord, lung, abscesses, etc., this is of inestimable advantage. The preliminary hardening of the tissue is effected in the usual manner. After this the specimen is immersed for at least two days in absolute alcohol. It is then transferred to a thin solution of celloidin. At the expiration of two or three days it is placed in a wooden or paper pill-box and this receptacle filled up with a celloidin-solution of a consistency equal to treacle. The box is then immersed in a vessel containing methylated spirit diluted to 82° or about. In another two or three days the celloidin mass, now consolidated, will be found ready for cutting.

Sections may be cut in several ways, but the most perfect are obtained by the machine made by Katsch, of Munich. (This microtome, the knife of which works under alcohol, allows very large and delicate sections to be made with monotonous regularity. The machine is, however, costly, and there seems no reason why a better instrument on similar lines should not be made in England for less money.) The embedded specimen may also be cut by a freezing microtome, but owing to the fact that celloidin freezes too hard, the shavings are extremely liable to chip. This,

however, may be averted in several ways known to those conversant with the freezing microtome; such as, leaving a small quantity of alcohol in the celloidin, or thawing the surface immediately before cutting with warm water or the breath, &c. The sections having been obtained, several methods of mounting may be adopted. If the celloidin is to be got rid of it may be dissolved out in a mixture of equal parts of absolute alcohol and ether and the specimen treated as usual. If the celloidin is to be retained, a variation of the usual course must be adopted. Thus, dehydration is effected by the aid of methylated spirit because absolute alcohol softens celloidin. Yet, with some experience of celloidin, dehydration may be finished off rapidly by a very short immersion in absolute alcohol. Finally the specimen should be cleared up in oil of bergamot, because oil of cloves is a rapid solvent of celloidin. These methods of clearing up specimens are those usually adopted, but quite recently it has been discovered that pure anilin or anilin oil is quite as effective as cloves or bergamot for clearing up sections with or without celloidin.

MEDICAL NEWS.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

RECOMMENDATIONS AND ALTERATIONS PROPOSED TO BE INCLUDED IN A NEW CHARTER OF THE COLLEGE.

THE following recommendations have been drawn up by a Sub-Committee of the Association, and having received the approval of the General Committee, will be submitted to a general meeting of the Association of Fellows, to be held on Saturday, November 8th, at 4 p.m., at the Medical Society's Rooms, Chandos Street, Cavendish Square, W. The marginal notes refer to the various Sections and Clauses of the Charters and By-laws concerned in the recommendations, and also give the page in the College Calendar on which they are to be found. Charters are privileges granted to the College by the Sovereign. By-laws, though liable, under certain conditions, to be made, altered, or abrogated by the Council of the College, must receive the approval of the Crown.—*Vide* Calendar, pp. xlii.-lv.

I.—Respecting the Conditions of Eligibility of Fellows to be Members of Council.

Calendar, p. xlvii., Charter Vict. xv., Sect. 7.

(*a*) Candidates must be Fellows: and either Fellows of fourteen years' standing or Members of twenty.

This recommendation proposes to remove all restrictions, which now prevent any Fellow from sitting on the Council who is not actually practising pure surgery.

Recommended:

(*a*) That subject to such limitations of standing as Fellow or Member, as defined in Section VII. of the Charter Vict. 15, any Fellow of the College shall be eligible to be a Member of Council.

Calendar, p. lvii., By-law, Sect. 5.

(*b*) As it is proposed later on to make the President hold office for a longer period than one year, it is considered desirable to render his duties less arduous.

The Council being limited in number, it is desirable to secure a due amount of attention to business of the corporation from each of its Members.

(*b*) Should any Member of Council other than the President be absent from more than two successive quarterly meetings, or from more than four successive ordinary meetings, he shall thereupon cease to be a Member of the Council, unless a reason for such absence satisfactory to the Council be assigned.

(*c*) Only a proportion of the Examiners should also be Members of the Council by whom the appointments are made. At present all the Members of the Court of Examiners and one Member of the Board are in the Council.

A resolution of Council to this effect was passed fourteen years ago, but has never yet been acted on, because it is not *binding* on the Council.

(*c*) That not more than one-half of the Members of the Court of Examiners, and not more than two Members of the Board of Examiners in Anatomy and Physiology, shall have seats in the Council.

(*d*) His immediate resignation might cause inconveniences at the next examination.

(*d*) If any Fellow, who is also a Member of the Court or of the Board of Examiners, shall be elected into the Council, he shall, within a period of two months of such election, vacate his office as a Member of the Court or of the Board.

II.—Respecting the Conditions of Candidature of Fellows for the Council.

Calendar, p. xlviii., Charter Vict. xv., Sect. 9.

A corollary to the first recommendation abolishes nomination by six Fellows and certificates of character from three.

Recommended:

That Section IX. of Charter 15 Vict. do read as follows:—That every Fellow who shall intend to offer himself as a candidate for a seat on the Council of the said College, shall within such time as the Council shall from time to time direct from the publication of the *London Gazette*, in which the day of election shall be announced, transmit or deliver to the Secretary of the same College a notice signed by himself of such his intention.

III.—Respecting the Conditions and Term of Tenure of the same Office.

Calendar, p. xxxviii., Charter Vict. vii., Sect. 12.

(*a*) At present three go out of office annually. It is thought desirable to increase the responsibility of Members of Council by causing them to seek re-election more frequently, and thus increase the control of the Fellows over the administration of the College.

Recommended:

(*a*) That the six Members of the Council who shall have served longest on the Council without re-election, shall vacate their office every year instead of three, as provided for by Section XII. of Charter 7th Vict.

IV.—Respecting Substitute Members.

(*b*) A substitute Member is now elected in case of death or resignation of a Member of Council, and only completes the term of his predecessor's tenure.

Recommended:

(*b*) That "Substitute Members," as defined by Section XIV., Charter 7th Vict., be abolished.

V.—Respecting the Mode of Voting.

Already conceded by the Council, and to be embodied in the new Charter. *Vide*, Proposed alterations submitted to a General Meeting of Fellows and Members held in the College on March 24th, 1884.

Approved:

The proposed alteration in the Section XV. of 7th Vict., abolishing compulsory personal voting, and permitting the alternative of voting by voting paper.

VI.—Respecting Payment of Fees by Members of Council.

Calendar, p. lvii., By-laws, Sect. iv.

At present each Member of Council, on election, pays twenty guineas.

Recommended:

The payment of a fee by a Member of the Council be no longer required.

VII.—Respecting the Election and Tenure of Office of President.

With a view to increase the dignity and status of the President. At present it is, in effect, *election by rotation.*

Recommended:

That the President of the College be elected annually by the Fellows from among the existing or past Members of the Council, at the time, in the manner, and under the conditions hereinafter described:—

(*a*) That he be elected at the time and in the manner that Members of the Council are elected, on the nomination of the Council.

(*b*) That the Council shall submit at least three names to the Fellows, one of which shall be that of the retiring President, provided he be eligible and does not decline to serve.

(*c*) That no one shall hold the office of President for a longer period than five consecutive years.

(*d*) If the President be elected from amongst the past Members of the Council, he shall become "ex officio" a Member of the Council during his tenure of office as President.

VIII.—Respecting the Office of Treasurer.

Calendar. p. lxix., By-laws, Sect. xxvi.

(*a*) At present the President and Vice-President are joint Treasurers; thus the office changes hands annually, and there is no public audit of accounts.

Recommended:

(*a*) That a Treasurer be appointed from amongst the Members of the Council, and that his accounts be audited by a professional auditor, whose report shall be submitted to the Annual Meeting of Fellows and Members.

(*b*) That the Treasurer's balance sheet duly audited shall be submitted to the Annual General Meeting of Fellows and Members, and that such balance sheet shall be published with the advertisements convening such Meeting.

IX.—Respecting the Constitution of the Court of Examiners.

(*a*) A Resolution of Council was passed eighteen years ago, that no Member of the Court of Examiners should hold office for more than two periods of five years; but this, like other Resolutions, not being "bindiug," is "inoperative."

Recommended:

(*a*) That Members of the Council of Examiners shall be elected annually, and that no Member of the Court of Examiners shall hold office for more than five consecutive years, and at the expiration of this time he shall not be again eligible until after a period of two years has elapsed.

(*b*) That all vacancies in the Court of Examiners shall be advertised in at least two of the weekly medical journals of the United Kingdom, with an announcement of the names of those Members of the Court who are eligible for re-election, and inviting Fellows desirous of being considered candidates to send in their names to the President.

This By-law exacts a fee of twenty guineas from each Member of the Court of Examiners on his appointment.

(*c*) That Section VIII. (3) By-law be omitted.

X.—Respecting the Board of Examiners in Anatomy and Physiology.

Proposes to make Members eligible as well as Fellows.

Recommended:

That Members of the Board of Examiners shall be elected annually from amongst the Fellows and Members of the College, and that no Member of the Board shall hold office for more than five consecutive years, and at the expiration of this, his term, he shall not be again eligible until after a period of two years has elapsed.

XI.—Respecting the Election of Fellows without Examination and Honorary Fellows.

(*a*) This provision of the Charter should be carried into effect more liberally than heretofore, but such elected Fellows should pay the same fee as Members who are admitted after examination, and not be elected without fee, as the Council proposes.

Recommended:

(*a*) That the alteration proposed by the Council in Section V. Charter 15 Viet., be not adopted, and that the words "any two persons," read "not more than five."

(*b*) This is a custom with similar bodies, and would add lustre to the College.

(*b*) That the Council may nominate distinguished members of the medical profession, whether Members of the College or not, as Honorary Fellows, to be elected by the Fellows and Members at the Annual General Meeting.

XII.—Respecting Meetings of Fellows and Members, separately and collectively.

Calendar, p. lxii. — By-law. Sect. XVIII.

(*a*) At present no meeting can be convened except by the President or Council, and the body corporate is entirely excluded from a knowledge of the affairs of the College; whilst important changes are made without the consent of the constituents.

Recommended:

(*a*) That there shall be an Annual General Meeting of the Fellows and Members at which the Annual Report of the Council, including the Treasurer's Statement of Accounts, duly audited, shall be presented, discussed, and if approved, adopted.

(*b*) The Council has recently, without the consent of the Fellows and Members, entered into a combination with the Royal College of Physicians, which materially alters the constitution and relations of the College.

(*b*) That no alteration in the constitution or in the relations of the College shall be effected without the consent of the Fellows and Members, convened specially to discuss such alterations.

(*c*) A resolution of Council over fourteen years ago permits of such Meetings, provided the Council APPROVE OF THE OBJECT OF SUCH MEETING.

(*c*) That on receipt of a requisition signed by thirty Fellows or Members the President shall convene a meeting within twenty-one days of the Fellows and Members collectively (or, if demanded in the requisition, separately). At this Special Meeting or Meetings the question or questions of which notice shall have been given in the requisition, shall alone be discussed.

(*d*) That such Meetings shall be duly advertised in the weekly journals.

XIII.—Recommended as a By-law.

Fourteen years ago a resolution of Council was carried that the Minutes of the Council Meetings should be suspended in the Hall after lapse of five days, but it still remains "INOPERATIVE."

That the Minutes of each Meeting of the Council shall be suspended for the inspection of Fellows and Members in the College Hall, or other convenient place, within twenty-four hours of the holding of such Meeting, and that they remain suspended for a period of at least seven days.

GEO. D. POLLOCK, *President.*

JOHN H. MORGAN, W. BRUCE CLARKE, } *Hon. Secs.*

UNIVERSITY OF CAMBRIDGE.—At a congregation held on Thursday the 23rd ultimo, the degree of Bachelor of Medicine was conferred on—

R. W. Seeming, Christ's; A. W. C. Peskett, Downing.

THE ROYAL UNIVERSITY OF IRELAND.—*M.B. Examination.*—The Examiners have recommended that the following Candidates should be placed in the Upper Pass Division, and that those marked with an asterisk should be admitted to a further Examination for Honours:—

Robert Alfred Carter, Charles R. Elliott, Thomas Frizell, *Thomas Grainger, *James Morwood, *William White, Queen's College, Belfast; Maurice Connery, Charles James Cooke, *Benjamin Hosford, *John Kearney, *Philip A. M'Carthy, *Denis Sheahau, Queen's College, Cork; *William Bartley, *Robert J. Macnamara, Queen's College, Galway; J. T. Daly.

The Examiners have further recommended that the following Candidates be also adjudged to have passed the Examination:—

William Frederick Bailey, Arthur Blackwood, Frederick James Burns, George Clarke, James C. Ferguson, Charles H. P. D. Graves, Charles Hayden, Hugh Lewers, Marcus M. Loudon, James M'Avoy, Nicholas J. M'Donuell, Joseph B. M'Kay, Edward Magennis, Donald C. Martin, Hugh Smith Morrison, Frederic C. Sinclair, George Scott Tate, Queen's College, Belfast; Patrick Blackall, John N. Corbett, Patrick G. Cotter, Warren R. Crooke, Joseph Giusani, Edward Greene, Samuel Roger Hunter, Morgan M'Swiney, James F. Magner, John Moore, Cornelius O'Doherty, Michael O'Halloran, J. Joseph Prendergast, Queen's College, Cork; Peter Joseph Horkan, William A. Wadsworth, George Alexander Waters, Queeu's College, Galway; Patrick Joseph O'Hara, Carmichael College; Alfred J. Smith, Patrick J. Soraghan, Catholic University School of Medicine; E. Alfred Starling, Guy's Hospital, London; George Nesbitt Wynne, Carmichael College, and Ledwich School of Medicine.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma were admitted members of the College at a meeting of the Court of Examiners on the 23rd ult., viz.:—

Edward Jessop, Nottingham; H. H. Fisher, Sittingbourne; G. S. Clayton, L.S.A., Hampstead; H. J. Bury, Hampstead; G. C. Bell, Blackheath; H. J. Hillstead, L.S.A., St. John's, S.E.; R. J. Kirby, L.R.C.P. Lond., Crouch Hill, N.W.; E. M. Hewish, M.D., Toronto; George Byrne, L.R.C.P. Lond., Manchester; Ernest Noad, L.R.C.P. Edin., Christ's Hospital, E.C.; A. J. Wrakly, L.R.C.P. Lond., Leytonstone; H. G. Shaw, L.R.C.P. Edin., Stratford-on-Avon; C. J. J. Hood, L.S.A., Tunbridge Wells; C. W. J. Bell, L.R.C.P. Edin., Dulwich; Henry Lloyd, L.S.A., Denbigh, and F. W. H. Penfold, Rainham, Kent.

Seven gentlemen were approved in Surgery and when qualified in Medicine will be admitted members of the

College, and six candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for six months and three for three months.

The following gentlemen passed on the 24th ult., viz :—

J. W. Carr, L.S.A., Bloomsbury Square; Ernest Cusse, L.S.A., Great Ormond Street, W.C.; P. R. W. Santi, L.S.A., Doughty Street, W.C.; Charles Averill, L.S.A., Stafford; A. S. Gubb, L.S.A, Southampton; Harry Tuck, L.S.A., Surbiton; C. S. Blair, M.D. Durham, Newcastle-on-Tyne; R. T. Cann, L.R.C.P. Lond., Lambeth Palace Road, S.E.; R. M. Williams, L.S.A., Beaumaris, Anglesey; W. R. Tytheridge, L.R.C.P. Edin., St. James' Square, S.W., and W. J. Best, L.S.A., Queensdown Road, E.

Six gentlemen were approved in Surgery and when qualified in Medicine will be admitted members of the College, and six candidates were referred for six months and as many for three months.

The following gentlemen having undergone the necessary examinations were admitted Licentiates in Dental Surgery at a meeting of the Board on the 29th ultimo, viz :—

William R. Ackland, Exeter; James C. V. Crocker, Penzance; Peyton G. Levason, Hereford; Herbert S. Parkinson, Sackville Street, W., and Charles A. Roberts, Weymouth Street, W.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 23rd, 1884 :—

William James Best, Richmond House, Queensdown Road, Clapton, E.; Jno. Arnallt Jones, Abergwesyn Vicarage, Llanwrtyd, Brecon; Henry Lloyd, Llanrhaiadr, Denbigh; Alexander McDonnell, 413, Kingsland Road, E.; William Francis Tronson, 9, Oxford Gardens, W.; Reginald Muzio Williams, TreCastell, Beaumaris, Anglesea.

University of Cambridge.—The following appointments are announced :—Dr. Donald MacAlister, to be the University Lecturer in Medicine. Dr. Robert Nicholls Ingle, to be the University Lecturer in Midwifery, Dr. Bushell Anningson, to be the University Lecturer in Medical Jurisprudence.

Oxford Graduates Medical Club.—The Committee of this club have announced that the next dinner is to be held at Limmer's Hotel, on Thursday, November 20th. Members are to be allowed the privilege of introducing one guest apiece who must be a member of the Universities of Oxford or Cambridge. The club already numbers upwards of 80 members, and so far as possible communications have been made to everyone in the profession who possesses an Oxford degree. In case any have not joined who may wish to do so they should write at once to one of the secretaries, Dr. Samuel West, or Mr. John H. Morgan.

The Royal Commission on the Housing of the Working Classes.—The Commission are still considering their report. It is stated that there are considerable differences of opinion on some points, and that the preparation of the report is likely to occupy several sittings. The document will necessarily have exclusive reference to England, as Scotland and Ireland are to form the subject of subsequent enquiry.

Aberdeen University.—The winter session began on the 22nd ult., when most of the classes in the Faculty were opened. In the Institutes of Medicine class Professor Stirling gave a general account of "animal electricity." He paid a high tribute to the genius of Emil du Bois Reymond, to whom we owed almost all our knowledge of animal electricity. The recent discoveries in connection with the "insectivorous" plants, such as the Venus' fly-trap, as regards their digestive powers depending on the presence of an acid and a ferment, were made the basis of a sketch, showing the identity of the physiological processes occurring in plants and animals. In the study of animal physiology the student merely continued in a more specialised way the study of those principles which obtained in other natural sciences; while in the study of disease the same processes were manifested under different conditions, so that certain principles linked all these subjects into one grand organic whole. Professor Struthers, in opening the anatomy class, gave a lecture, dealing with his experiences in America while attending the meetings of the British Association.

Royal University of Ireland.—At a meeting of the Senate held at the University Buildings, Earlsfort Terrace, Dublin, on Friday, October 24th, it was ordered that application should be made to His Excellency the Lord Lieutenant of Ireland for his approval of the recognition of the Edinburgh Royal Maternity and the Royal Edinburgh Asylum for the Insane as institutions from which the University will receive certificates for degrees in Medicine. The Senate also ordered that—(1) At the First Examination in Medicine, the following orders shall be added to those already prescribed :—*Papaveraceæ*, *Fumariaceæ*, *Caryophyllaceæ*, *Malvaceæ*, and *Valerianaceæ*, and that Prantl's "Work on Botany" shall be added to the list of ordinary text-books recommended, and "Packard's Zoology" to the list of books recommended to be read. (2) The course for the examination for the Stewart Scholarship for proficiency in mental diseases, shall include mental diseases, diseases of the brain and spinal cord, and diseases of the nervous system; practical examination of patients labouring under such diseases, and written reports upon the same, to be submitted to the examiners; examination with the microscope of pathological specimens and preparations illustrative of those diseases; and the examination shall not occupy less than three days.

Medical Representation in Parliament. — The following resolution has been passed at a committee of the Association of Members of the Royal College of Surgeons of England, and sent by Dr. Collum, the President, to Mr. Gladstone :—Resolved : "That the Prime Minister be respectfully requested to provide in the 'Redistribution Scheme' that two representatives in Parliament be given to the registered medical practitioners of Great Britain and Ireland, and for the following reasons :—1. Because they number over 30,000, and would be a very highly educated and eminently respectable constituency. 2. That they should not be placed at a legislative disadvantage with the various universities which already return members. 3. That large numbers of the profession are at present practically disfranchised, and unfairly so, as compared with other bodies of men with less pretensions, intellectually, morally, or socially. 4. That it would be to the advantage of science and material progress, as well as to the public health."

Infant Mortality in Sunderland.—The medical officer for Sunderland has issued a statement in which he shows that the distress in the borough has for some time past considerably *affected the death-rate of the town. In the first quarter of this year* 159 *infants under a year old died, in the second quarter* 183, *and in the third quarter the large number of* 321 *succumbed.* Again, as regards children who are over twelve months but under five years old, 95 died in the first quarter, 102 in the second, and as many as 140 in the third. Last year the deaths of all children under five years were only 38 per cent. of the total deaths, and the average for ten years was only 48 per cent. Similarly, among infants under a year old, the deaths last year were only 23 per cent. of the total deaths, and for ten years averaged only 28 per cent. In order more clearly to see the difference, the medical officer has tabulated the deaths of children per 100 total deaths :—

	Under a year.	Under five years.
Last ten weeks	46	66
1883	23	38
Average of ten years ..	28	48

"Figures like these," he says, "must appeal strongly to the people. Children are dying in unusually large numbers. The weak and the delicate are going first, to be followed no doubt by the stronger later on. Infants a few months old are dying because their mothers cannot nourish themselves, and hence are unable to suckle their offspring, and cannot buy them the milk which is so necessary for their existence. The winter is at hand, and I fear there will be no decline in the mortality unless a strong and systematic effort be made to relieve the people.

The Vienna Policlinic.—The following are the most important courses during the present winter session. Internal Medicine, by Professor von Stofella; Therapeutics, including Hydrotherapy and Diet, by Dr. Winternitz;

Pathology of Circulatory and Respiratory Organs, by Dr. von Basch; Laryngoscopy and Rhinoscopy, by Professor Schnitzler. The same professor, who is the newly-appointed Director of the Policlinic, will also give courses on Diseases of the Larynx, and on the more modern methods of examining and treating cases of Heart and Lung disease. Dr. Leopold Oser will hold a course on the diseases of the Stomach and Intestines. Professor Benedikt will lecture on diseases of the Brain and Spinal Cord; on Electrotherapeutics; and on Clinical Craniometry. Dr. Robert Ultzmann will give a course on diseases of the Urinary Organs, and Professor von Frisch will give courses on diseases of the Bones and Joints; on the Relation of Microorganisms to Infective Diseases; and on Experimental Bacteriology. Dr. Wolfler will lecture on the diagnosis of treatment of Surgical Diseases. The specialties, for which the policlinic is so much besought by foreign students, will be divided as follows:—Syphilis and Dermatology, by Dr. Hans von Hebra, and Dr. Edward Schiff; Diseases of the Eye, by Dr. Hock and Dr. Von Reuss; Diseases of the Ear, by Dr. Urbantschitsch; Children's Diseases, by Dr. Monti, Dr. Ludwig Fürth, and Dr. Maximilian Herz; Diseases of Women, by Professor Bandl.

The International Congress of Surgical Instrument Makers.—The second congress of the makers of surgical instruments, orthopædic apparatus and bandages, held in September at Dresden, when seventy members met, shows that the society formed last year has met with speedy recognition of its utility. In a year the number of members has almost doubled, amounting now to 175; and one of the chief objects of the present congress has been to forward the foundation of a journal, in which all novelties and improvements will be explained by good illustrations, and made known to the medical profession at large. Another object in view is the establishment of good schools in which assistants will have the opportunity, after becoming sufficiently acquainted with the practical surgical requirements, of hearing anatomical and other lectures, and visiting surgical and orthopædic clinics. A detailed prospectus of what is intended in this direction will be prepared for next year's congress, to be held at Berne. The proceedings of the present congress terminated with demonstrations of new instruments, and apparatus, and addresses on their practical employment.

Population of France in 1883.—It results from the statistics published by the *Journal Officiel* that the total excess of births over deaths in 1883 was only 96,843, which is about the same as in 1882, but is sensibly less than in 1881, when it was 108,229. It is found that the excess of births is largest in the industrial departments, and those in which the *petit culture* prevails, such as the Nord, Seine, Pas de Calais, Finisterre, Morbihan, Loire-Inférieur, &c. An excess of deaths, on the contrary, is met with in the rich departments, such as the Orne, Eure, Calvados, Seine-et-Oise, &c. The total number of deaths amounted in 1883 to 841,101, while it was 838,539 in 1882, 828,828 in 1881, and 858,000 in 1880. The number of births has progressively increased from 920,000 in 1880, 937,057 in 1881, 935,566 in 1882, to 937,944 in 1883—a gratifying fact, although somewhat damped by the increase, being entirely due to the greater number of natural children.

The Berlin Laboratories.—A Berlin correspondent of the *Philadelphia Medical News*, September 13, supplies some interesting information on this subject. He states that there are several good chemical laboratories at which a "mediciner" may work, but that of Professor Hoffmann, on account of the fame of its director, is filled and overfilled, and the securing a place at this does not follow that the possessor shall be under the distinguished professor's own teaching. In his own case, the writer was consigned to another department never even visited by him; so that he naturally does not speak very well of it. There are several laboratories for physiological chemistry, each guided by a teacher of distinction. The oldest of these is that of the Pathological Institute in connection with the Charité Hospital, and which was founded as long ago as 1856, owing its existence to the insight of Virchow, who was able to appreciate at an early period the relations and importance of chemistry to medicine. Hoppe-Seyler and Kühne have formerly been connected with it, and it is now directed by Professor Salkowski. It is to be recommended to anyone wishing to work at medical chemistry, whether physiological or pathological. The Physiological Institute has also an admirable laboratory for physiological chemistry, under Dr. Kossel, who until recently was an assistant of Professor Hoppe-Seyler, at Strasburg. "It is remarkable how many practising physicians still, at the age of 35 or 40, manage to maintain a lively interest in physiology, and often undertake investigations either in the chemical or experimental departments. Sometimes this work has a direct reference to practical medical questions, and sometimes seems to be done purely to maintain an old scientific love. They have, in fact, never been divorced." The Institute for Physics, under the direction of Helmholtz, that for Physiology, under Du Bois Reymond, and that for Pharmacology, under Liebreich, are so close together that they form one magnificent and compact pile, only surpassed in beauty by the Military Academy opposite. A course on physiological optics is given in the Institute of Physics, but the "mediciner" who would get much from this must be well versed in mathematics. The case is different with another course on physics, given in the Institute of Physiology, by Professor Christiani, which is expressly designed for the "mediciner," and comprises what is most important for the understanding of experimental physiology, the microscope, &c. The experiments are most admirable, and leave but little to be desired. The mathematics of the subject are not neglected, but by the use of the graphic method many mathematical formulæ which otherwise would be very difficult for such auditors, are rendered clear. The same remark applies to the more difficult theories, such as the wave theories. Altogether the course is unique, and the teacher of any department of experimental science can get many valuable suggestions as to the best modes of making his subject clear and expressive. Physiology is in a highly flourishing condition in Berlin. Reference has already been made to the abundant provision for physiological chemistry. A course of lectures on general physiology is also given at the excellent Veterinary School, by Professor Munk, which are both clear and well adapted to the hearers. The principal course of lectures in the Physiological Institute is given by the venerable and long-famous director, Professor Du Bois Reymond. His lecture-room is large, comfortable, and exceedingly elegant in all its appointments, and the lectures are illustrated by the most beautiful and best adapted apparatus to be had. Professor Kronecker gives one lecture a week on the physiology of the heart, and one on muscle physiology, both in much detail, and well illustrated; and upon this energetic and accomplished professor most of the laboratory work in the experimental department of physiology devolves. "Apart from conducting many special researches, a course on the 'methods of investigation' in physiology is given. In this course, vivisection and the graphic method are taught very much apart; and in general the separation of what may be called the *technique* of physiology from the theory and the facts of the science observed in this laboratory seem to me to deserve much consideration. How much loss of time and confusion of ideas are avoided by such a course, only those who have seen the reverse method pursued can thoroughly appreciate. I should be glad to see such a separation in some way applied to chemistry and some other departments, for I know of no laboratories in which so much time is simply pottered away as in chemical laboratories. A preliminary course on *technique* or manipulation would obviate much of this, and also probably prevent the student from becoming the mere mechanical worker." From what has been said, it will appear that ample provision has been made in the Berlin Physiological Institute for teaching, under the best conditions, the physics of medicine, the chemistry of medicine, and the experimental physiology of medicine; and it only remains to add that a full course on histology, &c., is given by Professor Fritsch, to indicate how thoroughly this institute deserves its name. The adjoining Pharmaceutical laboratory, under the direction of the well known Liebreich, is, in the completeness of its various departments, perhaps unequalled in the world. No expense seems to have been spared to make it as nearly

perfect as possible for the purposes both of teaching and of investigation. A noteworthy regulation exists, requiring all students to take a course in antiseptics, and a special department of the laboratory is devoted to this purpose. In conclusion, the writer suggests to the authorities of the Berlin University the propriety of repealing the regulation which obliges all foreigners, irrespective of age and status, to pay a matriculation fee, and go through all the forms (and these are not few) pertaining to matriculation before they can participate in the advantages of the university.

SUDDEN DEATH FROM GANGRENE.—Dr. Messemer, the deputy coroner of New York, writes that he has met with a great many cases of persons dying suddenly, who were affected with gangrene of the right hand or arm, caused by injury or frostbite. The gangrenous gases pass through the veins of the right arm into the vena cava and right side of the heart, causing instantaneous death by syncope or collapse. When the right side of the heart is cut into, after death, a puff of gangrenous gas can be distinctly discerned.

EXTRA-UTERINE PREGNANCY.—At a meeting of the New York Obstetrical Society, Professor Gaillard Thomas read a paper upon this subject in continuation of a communication which he had made to the American Gynæcological Society in 1882, and in which he had recorded the particulars of the 24 cases that had occurred in his practice. Since then he had met with six other cases, making 30 cases, which he believed to be an unusual number to occur in the practice of one man. Of these six cases he now gives a succinct account, and the conclusion he draws from them is that surgical interference should be avoided by every means in our power. He had tapped three cases with a needle, and in each with a fatal result. Every one knows what has hitherto been the result of removing the mass in such cases, and although no doubt this would be better under antiseptic procedure, yet such wonderful results have been obtained by electricity that he thinks it should be adopted in every case in which the diagnosis has been made in time, and that all the more because when it does no good it does no harm.

APPOINTMENTS.

ANGLIN, W. G., M.D., C.M.—Resident Physician to the Royal Edinburgh Hospital for Sick Children.

APPLEFORD, S. H., M.R.C.S., L.R.C.P.—Surgeon to the Eastern Dispensary, *vice* J. E. Adams, resigned.

BARBER, F. S., M.R.C.S.—House Surgeon to the Kidderminster Infirmary.

BLACKET, ERNEST, M.R.C.S. Eng., and L.R.C.P. Edin.—Medical Officer to the Workhouse, Clutton Union, *vice* Mr. W. B. B. Perrin, resigned.

CALEB, C. C., M.B., M.R.C.S. — House Physician to the North London Hospital for Consumption and Diseases of the Chest, Hampstead.

DWYER, F. CONWAY, M.D., B.Ch.—House Surgeon to the Mater Misericordiæ Hospital, Dublin, *vice* Dr. Cruise, resigned.

MACKINTOSH, GEORGE DOUGLAS, L.K. and Q.C.P. Ire.—Medical Officer to the Sixth District, Market Harborough Union, *vice* Mr. T. Macaulay, resigned.

MARTIN, THEODORE, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Cameley District, Clutton Union, *vice* Mr. W. B. B. Perrin, resigned.

SHAW, H. C. C., M.R.C.S., L.R.C.P. Lond.—Resident Medical Officer to the Richmond Hospital, Surrey.

WEBB, M., M.B. Lond., M.R.C.S.—Resident Medical Officer to the Royal Infirmary, Manchester.

VACANCIES.

BRISTOL ROYAL INFIRMARY. — ASSISTANT Resident Officer and Pathologist. (*For particulars see Advertisement.*)

ECCLES AND DISTRICT MEDICAL ASSOCIATION. — Medical Officer. (*For particulars see Advertisement.*)

HOLSWORTHY UNION.—Medical Officer to the Third District and the Workhouse, in succession to Mr. E. T. Pearce, deceased. Area, 17,197 acres. Population, 1,619. Salary, £25 8*s.* 4*d.* per annum. Salary for the Workhouse, £22 per annum.

NORTH RIDING INFIRMARY, MIDDLESBROUGH-ON-TEES. — House Surgeon. Salary, £100 a year, with lodging, board and washing. Candidates must be possessed of a Medical and Surgical qualification, recognised by the General Medical Council, and be unmarried. Applications to be sent to Angus Macpherson, Secretary, up to November 3rd.

ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD STREET, MOORFIELDS.—Assistant Surgeon. Applications and testimonials to be sent to the Secretary, on or before November 8th.

TARVIN UNION.—Medical Officer to the Tattenhall District, in succession to Mr. Thomas James Proudlove, deceased. Area, 24,293 acres. Population, 5,312. Salary, £40 per annum.

THE CANCER HOSPITAL, FULHAM ROAD, BROMPTON, S.W.—Honorary Surgeon, also an Honorary Assistant Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England, and practising only as consulting surgeons. Applications, with testimonials, to be addressed to the Chairman of the Weekly Board, at the Hospital, on or before November 11th.

WYCOMBE UNION.—Medical Officer for the First District, in succession to Mr. W. Rose, resigned. Area, 6,730 acres. Population, 6,917. Salary, £80 per annum.

DEATHS.

BROWN, CHARLES BLAKELY, M.D. (Oxon), of 3, Hill Street, Berkeley Square, W., on October 22nd.

GIBB, ALEX., M.D., Inspector General of Hospitals, at 12, Windsor Street, Edinburgh, on October 21st.

GIBSON, HENRY, M.R.C.S., at 50, Prospect Street, Hull, on October 19th, aged 71.

LUKE, JOSEPH, M.D., of Oak Lodge, Green Lanes, Finsbury Park, N., at 4, Beulah Villas, Clive Vale, Hastings, on October 22nd, aged 66.

ROGERS, N., M.D., at 16, The Strand, Exmouth, on October 27th, in his 77th year.

SHEEHY, W. H., L.R.C.P., at 39, Great Percy Street, W.C., on October 24th, in his 65th year.

NOTES, QUERIES, AND REPLIES.

Dens Sap, South Kensington.—There is no such title as "L.D.S., F.S.S., of the R.C.S." Another correspondent states that the circular is widely distributed in Wimbledon and its neighbourhood.

A Provincial Teacher.—At the corresponding period last year there were 129 candidates examined for the diploma of the Royal College of Surgeons; this year 125, of which number thirty-one were referred for six months, and eighteen for three months, making a total of 49.

COMMUNICATIONS RECEIVED—

Dr. J. MATTHEWS DUNCAN, F.R.S., London; Dr. CLIFFORD BEALE, London; Dr. TIRARD, London; Dr. NORMAN CHEVERS, London; Dr. HERMAN, London; Dr. STURGES, London; Dr. D. MACALISTER, Cambridge; Mr. JAMES DIXON, Dorking; Dr. RAYNER, Hanwell; Prof. SCHNITZLER, Vienna; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT, London; Messrs. NEVILL, London; Mr. J. T. BACOT, Seaton, Devon; THE HON. SECRETARY OF THE ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; THE SECRETARY OF THE SCOTTISH NATIONAL CONSTITUTIONAL ASSOCIATION, Edinburgh; Dr. WM. EWART, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. G. S. JOHNSON, London; Mr. KINGZETT, London; Mr. WYNTER BLYTH, London; Mr. WAGSTAFFE, Sevenoaks; Dr. HEBB, London; Mr. STONE, Wimbledon; OUR DUBLIN CORRESPONDENT; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Dr. MARKHAM SKERRITT, Bristol; THE REGISTRAR-GENERAL, Queensland; THE REGISTRAR-GENERAL, London; THE REGISTRAR-GENERAL, Edinburgh; Mr. J. H. MORGAN, London; OUR VIENNA CORRESPONDENT; Mr. H. P. DUNN, London; THE HON. SEC. OF THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, London; Mrs. CAMERON, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; Dr. R. G. DAUNT, Campenas, St. Paulo, Brazil; THE SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE EDITOR OF THE PHILANTHROPIST, London; THE REGISTRAR-GENERAL, Dublin.

BOOKS RECEIVED—

England to the Cape of Good Hope, &c., by A. Wilmot, F.R.G.S.—The Spitalfields Genius, by J. Fayle, B.A.—Handbook of the International Health Exhibition on the London Water Supply, by Col. Sir Francis Bolton, C.E.—Real-Encyclopädie der Gesammten Heilkunde—Biographisches Lexikon der Hervorragenden Aerzte Aller Zeiten und Völker — Dental Caries, by Henry Sewill, M.R.C.S., and L.D.S. Eng.—Handbook of Midwifery for Midwives, by J. E. Burton, M.R.C.S., L.R.C.P. Lond.—Subcutane oder intravenöse Infusion als Behandlungsmethode der Cholera, von Prof. Dr. Samuel—Lehrbuch der Physiologie, von Dr. A. Gruenhagen—Diphtheria Spread by Adults, by A. Jacobi, M.D.—Our Medical Charities, and the Working Classes, by Sampson Gamgee, F.R.S.E.—Observations in China, by Fortescue Fox, M.B. Lond.—A Descriptive Catalogue of the Pathological Museum of the Middlesex Hospital, by J. K. Fowler, M.A., M.D., and J. B. Sutton, F.R.C.S.—Some Practical Remarks on Dietetics in Disease, by William Pepper, M.D., LL.D.—Madness and Crime, by Clark Bell, Esq.—The Adaptation of Bible Religion to the Needs and Nature of Man, by the Rev. W. G. Blaikie—Transactions of the Clinical Society of London, vol. xvii.—Ueber Ptomaine, von Prof. Dr. L. Brieger—The Encyclopædic Dictionary, Part 10.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médicale Revue D'Hygiène—Société Médicale—Revista de Medicina—The American Journal of Obstetrics—The Asclepiad—The American Journal of Neurology and Psychiatry—The Medical World—La Crónica Médica—Canada Medical and Surgical Journal—The Therapeutic Gazette—The American Journal of the Medical Sciences—The Girl's Own Paper—The Leisure Hour—The Boy's Own Paper—Friendly Greetings—The Sunday at Home—The Quiver—The Morningside Mirror.

APPOINTMENTS FOR THE WEEK.

Friday, October 31 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, November 1.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, November 3.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London, 8.30 p.m.—General Meeting. Mr. Edmund Owen, on "Lancing the Gums;" Dr. de Haviland Hall, on "A Case of Surgical Scarlet Fever."

Odontological Society of Great Britain, 40, Leicester Square, 8 p.m.—Casual Communications, by Messrs. Ackery, A. S. Underwood, Storer Bennett, and Morton Smale. Paper, by Mr. F. Newland Pedley, "Some Points in Connection with Fracture of the Lower Maxilla."

Tuesday, November 4.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Pathological Society of London, 8.30 p.m.—Dr. Hale White, on "Coarctation of the Aorta;" Drs. Hobson and Lanchester, on "Caseous Pneumonia Simulating Empyema;" Mr. Barker, on "Removal of Upper Jaw for Epithelioma;" Dr. Percy Kidd, on "Cardiac Aneurysms;" Dr. Howard Tooth, on "Lympho-sarcoma of the Liver in a Child;" Dr. Carrington, on "Cancer of the Liver and Adrenals with Melanæmia, &c.;" Dr. Acland, "Two Cases of Ulceration of the Intestines in Paraplegia."

Wednesday, November 5.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Medico-Psychological Association, Bethlem Hospital.—Quarterly Meeting at 4 p.m. Dr. A. H. Newth, on "The Value of Electricity in the Treatment of Insanity." Council Meeting at 3.30 p.m.

Obstetrical Society of London, 8 p.m.—Dr. Graily Hewitt, on "The Severe or so-called Uncontrollable Vomiting of Pregnancy;" Dr. Potter, on "A Case of Retained Product of Conception." Specimens will be shown by Mr. Lawson Tait and others.

Thursday, November 6.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, November 7.

West London Medico-Chirurgical Society, 8 p.m.—Mr. Bernard Pitts, "Foreign Body in the Air-passage, Abscess of the Lung—Recovery;" Mr. Maitland Thompson, "Case of Retention (24 hours)—Catheter Fever—Death;" Mr. Noble Smith, "The Objects of the Medical Sickness, Annuity, and Life Assurance Society;" Dr. Chas. Good, "Gastric Ulcer—Rupture—Sudden Death."

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SUMMARY OF CONTENTS, OCTOBER 25.

MEDICAL TIMES

AND GAZETTE.

No. 1793. LONDON, SATURDAY, NOVEMBER 8, 1884.

Contents.

THE REVIVAL OF OVARIOTOMY, AND ITS INFLUENCE ON MODERN SURGERY.[1]

By SIR SPENCER WELLS, Bart.,

Late President of the Royal College of Surgeons of England.

MR. PRESIDENT and GENTLEMEN, MEMBERS of the MIDLAND MEDICAL SOCIETY,—

Next to the satisfaction which attends the fulfilment of the first duty of our calling—the relief of suffering and the prolongation of human life, which the Roman orator said raised the giver of health to man nearer to the Divine Giver of life—I know of no higher privilege than that of being permitted to address educated minds,—of endeavouring to influence for good, medical thought and opinion and practice—whether by the aid of the art of the printer—that "magic which embalms the thought"—or by addressing such an assemblage as this, with the knowledge that what may be said before you (after as much careful preparation as the too scanty leisure of a very active life permits) will be carried as far as our language is read or translated. The honourable privilege, as rare as it is enviable, of addressing a great gathering of fellow-workmen, of corresponding pursuits and tastes, from whom one may confidently expect a sympathetic hearing and active response, can hardly be over estimated. Much or little as we may know of each other, we are all united by the strong tie of professional interest; by the ambition to do well our daily work; and, I hope, by the desire so to make use of the meeting as to fuse temporary contact into durable friendship. I know that I see before me an assembly of no average intellectual standard. In days gone by, in this favoured district of our fatherland, there were "mighty men which were of old men of renown,"—the generations who have helped to make Birmingham what it is—the Areopagus of the Midlands. So to-day, the men who still kindle its enthusiasm, still direct its energies, and are the masterspirits of its industry, its patriotism, its loyalty, are aided and influenced by a residential doctorate equal to the task of keeping such a population sound in body, sound in mind, and of thus economising the vast financial interests depending on its sanitary condition. The members of this society now take the place, as a protective educational power, which was formerly filled almost entirely by the priest. Perhaps in many cases you do for the bodily health what is done by the rector or the nonconformist teacher for the moral direction of the parish. You are ready and willing to fulfil your high vocation, guiding your course of action as a beneficent, irrigating stream in the midst of a people whose bodily and mental welfare is entrusted to your charge.

[1] Inaugural Address of the Session 1884 of the Midland Medical Society, delivered at Birmingham, November 5th, 1884.

What to say to such an audience is of course the first question. Of local affairs you know more than I do. Medical politics and controversial topics must be avoided. I have been told that you would probably be disappointed if I did not tell you something more of my own work—of what I have done and how I did it—why I did it—of my successes and my failures—how mistakes have become less frequent and progress more certain—than can be learnt from anything I have yet published. Acting on this hint, and knowing that in the minds of many of you my name is more closely associated with the practice of ovariotomy than with any other surgical question, I would first ask your attention to one phase in the history of the development of the operation—that which has been well termed the

Revival of Ovariotomy in England.

There are not many here who can carry back their reminiscences so far as mine go. Without being formally apprenticed, I had all the advantages of the old apprenticeship system under an unusually able and worthy man, the late Michael Thomas Sadler, of Barnsley, in Yorkshire. For one year I lived with one of the parish surgeons of Leeds, attended the lectures of Hey and Teale, and saw much practice in the Leeds Infirmary. In 1837-38 I was in Dublin, under Graves and Stokes, Crampton, Beattie, Harrison, Apjohn, and Jacob. In 1839–40 I worked hard in St. Thomas's Hospital under Green, Travers, and Tyrrell. I obtained the prize for the fullest reports of examinations of the bodies of patients dying in the hospital during that period. But neither in the dead-house, nor in the wards or out-patient room of St. Thomas's, nor in Dublin, nor in Leeds, nor during my pupilage, can I remember ever having once seen a case of ovarian disease. I never heard a lecture upon the subject. Very little was said about it in any of the text-books; and the way in which it was introduced showed that it was not thought of sufficient importance for the attention of students to be drawn to it.

I very much doubt whether it ever formed any part of the examination at either the College or the Hall. We now know that, though Morgan, Key, and Bransby Cooper at Guy's Hospital, in 1839 and 1840, and Phillips at the Marylebone Workhouse in 1840, each operated once, the matter was not in any way brought under the notice of the medical students of that time. I have no doubt that the operations at Guy's were done under the influence of Blundell, who had been lecturer on obstetric medicine in that hospital. In the edition of his "Obstetrical Medicine," published in 1840, there is a chapter on ovarian dropsy very far in advance of the general knowledge of the day. To illustrate the routine treatment of the disease, he relates a characteristic saying of Abernethy, who, consulted on a case where tapping was useless on account of the viscid character of the contents of an ovarian cyst, said, "It won't do to go on boring holes in the belly." Probably Sir Astley Cooper's famous story of a case of "dry tapping" may be explained in the same way.

But I had not seen Blundell's book, and it was not till many years afterwards that I even heard of the name of McDowell, or of any of the fourteen cases of ovariotomy done in Great Britain between 1825 and 1839. It was not until I had myself written on the subject that I learnt what William and John Hunter had thought and suggested, or that John Bell had so lectured as to inspire McDowell with the determination to do what he afterwards did. In fact, I believe that most teachers and students of that day knew as little or cared as little about the subject as I did.

Very soon after becoming a member of the College of Surgeons in 1841, I entered the Royal Navy as Assistant Surgeon, and for some six years served in the Naval Hospital at Malta. In addition to naval practice, I saw many patients, both male and female, and did many operations, in consultation with resident practitioners in Malta. But I can only recollect one case, which I now believe might probably have been a case of ovarian tumour, but which at that time was a puzzle to us. My old friend Dr. Waters, of Chester, has lately reminded me that he and I had conversed on the subject of ovariotomy in Paris in 1848. But he spoke with knowledge acquired in Edinburgh under Hughes Bennett—I in complete ignorance. Still it is curious that we both came to the conclusion that, upon the facts as they then stood, ovariotomy was not a justifiable operation.

It was not until after settling in practice in London, which I did in 1853, that I ever saw a patient whom I knew to be suffering from ovarian disease. In 1854 I joined the Samaritan Hospital—at that time a dispensary for the diseases of women—a subject of which I knew less than of any other special division of our profession. In my young days I had done an unusual amount of midwifery, but latterly my practice had been almost exclusively surgical, with a strong tendency towards ophthalmic surgery. In 1853 or 1854 I became acquainted with Baker Brown. He occasionally came to the Samaritan Hospital, which he wished to join, and I two or three times saw patients with him at St. Mary's. In April, 1854, I and my friend Nunn, of the Middlesex, assisted Baker Brown in his eighth case of ovariotomy. This was the first time I had ever seen the operation attempted; and it certainly did not encourage me to look favourably upon ovariotomy. The patient died, and her death discouraged Brown. He, Nunn, and I talked the matter over, and I well remember Brown's saying, "It's the peritonitis that beats us." His first three cases died, the fourth recovered, his fifth and sixth died, the seventh recovered, and the deaths of the eighth, in 1854, and of the ninth, in 1856, led him to cease operating for more than two years and a half, and again to advocate treatment by pressure and iodine. He did not perform ovariotomy between March, 1856, and October, 1858.

When the Crimean War broke out, I left London, served in the Army in the East, and of course lost sight for a time of all the diseases of women. Any impression that I had received as to ovariotomy was certainly not favourable; but I did see cases of abdominal wounds which taught me that the peritonæum would bear much rougher handling than I had previously believed permissible. I had written about hernia, and had advocated division of the stricture without opening the sac whenever possible, simply to avoid the danger of admitting air or blood into the peritonæal cavity. But I learnt in the Crimea that a man's abdominal wall might be lacerated by fragments of shell, his intestines protruding and covered with mud, so remaining for several hours; and yet, that after careful cleansing of the cavity and accurate closure of the wounds, complete recovery was possible. When I returned to London in 1856, I was certainly much less afraid than before of abdominal wounds. I took up my work at the Samaritan Hospital again, but saw very few cases at first of ovarian disease. The first made a very painful impression upon me. Snow Beck tapped a very fine young woman, and injected iodine, he thought, into the cyst; but he really injected the peritonæal cavity. He had not taken the precaution of passing a long catheter through the short canula of his trocar; the emptied cyst slipped off the canula, and several ounces of tincture of iodine passed directly into the peritonæal cavity. Beck was grievously distressed; but the case did not so much deter us from the use of iodine as awaken us to the necessary precautions as to the mode of injection. But we had very few

cases of ovarian disease, and it was not till December, 1857, that I made my first attempt to perform ovariotomy.

A tolerably full report of the case was published at the time, and reprinted in 1865. Baker Brown was present, and strongly dissuaded me from going on with the operation, on the ground that, as the tumour was behind the intestines, it could not be ovarian.

It is not easy to estimate correctly the part played by Baker Brown in the progress of gynæcology. In the minds of many, his really great services have been overshadowed by the errors of his later practice. Some who fully acknowledge and admire what he did to popularise the operations for the cure of ruptured perineum and vesico-vaginal fistula, and who now recognise the great success which attended his adoption afterwards of John Clay's suggestion of dividing the pedicle of an ovarian tumour by the combined action of strong compression or crushing with the actual cautery, forget, or never knew, that when Brown assisted me in the case which I have just referred to, and in another which I am about to mention, his own early experience of ovariotomy had led him rather to oppose than encourage the repetition of the operation. At my second attempt, my first case of completed ovariotomy, Brown again assisted me, and in my first and in all subsequent reports of the operation I have fully acknowledged his zealous assistance. But it was not until after I had had three successful cases that Brown himself began to operate again, after an interval of more than two years and a half. At this third case Tyler Smith was present. He was greatly surprised at the successful result, and it induced him not only to cease the opposition he had formerly offered to Brown's practice, but to operate himself, which he did with great success.

I think it would be difficult to imagine a position more disheartening than that in which I was placed when making my first trials of ovariotomy. The first attempt, as I have said, was a complete failure, and strengthened, not only in the minds of others, but in my own mind, the fear that I might be entering upon a path which would lead rather to an unenviable notoriety than to a sound professional reputation. And if I had not seen increasing numbers of poor women hopelessly suffering, almost longing for death, anxious for relief at any risk, I should probably have acquiesced in the general conviction—have been content with palliative tapping, or making some further trials of incision and drainage, or of iodine injection, or of pressure, rather than have hazarded anything more in the way of ovariotomy. It may be forgotten now, but it is true, that at that time everything was against the venture. The medical press had denounced the operation, both in principle and practice, in the strongest terms. At the medical societies the speakers of the highest authority had condemned it most emphatically. The example of the men who had practised it was not followed; some of them had given it up. Only once had a successful result been obtained in any of our large metropolitan hospitals, that by Cæsar Hawkins, at St. George's, in 1846—and he never undertook it a second time. Every other attempt, at Guy's by Morgan, Key, and Bransby Cooper, at St. Thomas's by Solly, had ended in death.

This was how we stood at the end of 1857. It was in February, 1858, that I completed the operation for the first time. I need say no more about it now than that it led to my being congratulated by Dr. West upon "complete success," and, with other evidence, to his thorough conversion from his previous condition of conscientious and determined opposition to a state of warm support both in public and private. Let me read to you part of a letter written by my friend Keith, of Edinburgh. In the *British Medical Journal*, in 1873, Keith wrote: "Few watched more eagerly than I did the history of this operation, and few know so well the details of the early cases. Till 1858 I could find nothing whatever anywhere to encourage, but everything to deter one from attempting it. Ovariotomy was then as an operation simply nowhere, and had the practice of using Dr. Clay's long intra-peritonæal ligatures been continued, it would have yet been nowhere. Up till that year Mr. Brown had lost seven out of his nine patients, and had ceased operating for upwards of two years and a half. Surely there was nothing for anyone to learn from such results, except, perhaps, what there might be to avoid." Keith was one of the first to follow me, and did more than anyone else at that time to assist in the revival of ovariotomy. I had done eight cases when he began, and ever since we have gone on side by side, very friendly rivals, assisting each other, comparing notes, not always running on the same track, but always equally anxious to perfect the operation. You all know how wonderful his success has been. Some of his later cases of the removal of uterine tumours are unsurpassed as surgical achievements. He concludes the letter, part of which I have just read, by asserting as others, both before and since, at home and abroad, have also done, and which it is my highest pride and pleasure to feel was not due only to their friendly feelings, but because it is true, that the period of progress, "the revival of ovariotomy," began when the results of my earlier operations were made known, and the confidence of the profession was obtained by the publication of every case, whether successful or not.

Anyone who will look over the reports of my early cases, will see the names of the men who sent me the patients—West, Rigby, Watson, Acland, Hare, Stokes, and Oldham—of those who, as well as my colleagues, Savage, Priestley, Graily Hewitt, assisted me, or were present at the operations, among whom I may mention Paget, Fergusson, Tyler Smith, Bowman, Seymour Haden, Pirrie, Baker, Grimsdale, Bickersteth—who discussed with me various questions which arose as to pathology and treatment, Aitken, Richardson, Ritchie, Hutchinson, Frank, Druitt, Robert Lee, Churchill, Beatty, and Simpson—who for their personal assurance, like Nélaton, Worms, Demarquay, De Mussy, Péan, Courty, came from France; or De Roubaix and Boddaert from Belgium; or from Germany, as Schuh, Billroth, Esmarch; from Italy, as Porta, Vanzetti; or from America, as Gross and Marion Sims—will find no difficulty in understanding that we have now reached a turning-point. Some of these timely allies have finished their course; some remain ripened and matured by years of experience—not yet worn out, but finding their greatest happiness in their daily work, and in friendly association with their fellows and juniors. When I can name such men as not only having witnessed and sanctioned the operation, but becoming convinced, by following up the cases, that it was at least as successful as other serious operative proceedings, and when I add that many of these men soon began to perform the operation themselves, and publicly to advocate it—no one, I say, who considers all this will be surprised at the rapid rise and progress of ovariotomy between 1858, when it was revived, and 1864, when it was very generally accepted as a legitimate operation, and was not long afterwards cited as a triumph of modern surgery.

If I were to select from the books and pamphlets (most of which I have carefully preserved) published during these six years, any one work which contributed more than others to form professional opinion, to awaken interest, and to instruct those who had before not thought upon the subject, it would be the tables of cases most industriously collected by your own townsman, John Clay, and published as an appendix

to his translation of Kiwisch's "Clinical Lectures on Diseases of the Ovaries." The tables are now of far more value than the lectures. One of Clay's chief merits is the example he set of obtaining all the information possible as to every recorded case of ovariotomy, completed or attempted, from the first up to 1860. He collected such a mass of facts, and arranged them for reference or study so conveniently, that he supplied us with fuller and more trustworthy information than had ever before been gathered together upon any surgical question, and I think he may be said to have done more than helped in starting what is now called the "Collective investigation of disease."

From these tables as arranged by Clay, and from a perusal of the works published about that time, we can now see how fully the principles and many of the practical details concerned in the matter had been discussed. What may be called the ethical or moral side of the question had been fully argued. The fears and forebodings as to the physical and physiological effects of the removal of an ovary—such as the abnormal accumulation of fat, the development of masculine type, and the restriction of the sex of infants—were dispelled and falsified. The causes of death in fatal cases had been investigated. Many of the mistakes of the earlier operators had been corrected; and, far above all other things, the profession had gained confidence in the accuracy and completeness of the facts laid before them. The old plan of operating in a hot moist chamber, and keeping the room over-heated for days afterwards, was soon abandoned. The semi-recumbent position of the patient was exchanged with great advantage for the horizontal. Safer anæsthetics than chloroform were used. Simple bandages for keeping the patient quiet supplied the place of an objectionable crowd of assistants. Precautions, never before thought much about, were taken for protecting the patient from any infectious disease; by obliging every visitor intending to be present to declare that he had not made a *post-mortem* examination, nor been into a dissecting room, nor attended any case of infectious disease within a week; by the utmost attainable purification of the house, room, bedding and clothing, sponges and instruments—in fact, of everything brought near the patient—and all this was insisted on with a pertinacity which often gave offence. A great deal was gained by shortening the incision in the abdominal wall, by emptying the cyst before drawing it out, or by lessening the bulk by breaking down the septa of multilocular cysts; by extreme care in preventing the entrance of ovarian fluid into the peritonæal cavity, or by very carefully cleansing the cavity from any blood or fluid which had entered it—a process christened by Worms the "toilet of the peritonæum." Sir Benjamin Brodie long ago remarked with regard to lithotrity, that success depended upon attention to a number of minute details. So with ovariotomy. No one of the details which I have just alluded to may be alone of any great importance, but taken together they did a great deal towards preventing failure and securing success. Other modifications of more or less importance were soon made. The old vegetable material for ligatures and sutures, coarse whipcord or twine, was abandoned. After many trials of silver, iron, or platinum wire, horsehair, fish-gut, and other materials, we settled upon pure silk as the most useful and trustworthy, and proved that, after a few weeks' retention in the animal body, it entirely disappeared. The mode or process of its removal by the insinuation of white-blood corpuscles between its fibres, a sort of untwisting or solution, was watched stage by stage, and long before the treatment of the pedicle in this manner was seriously proposed, we learnt that silk ligatures, and portions of omentum secured by them, might safely be left within the abdominal cavity. Nathan Smith was the first to treat the pedicle in this way, but he made his ligatures from a leather glove. Tyler Smith was the first to revive the practice, using silk. A story has been very generally believed—probably some of you may have heard it—that Tyler Smith's first trial was accidental; that he cut off the ends of the ligatures inadvertently, forgot all about them, and was surprised to find that his patient recovered. But on inquiring of his former assistant, Dr. Edwards, who is still in practice in London, I am assured that there is no ground for this story. The operation was performed in June, 1861. Dr. Edwards writes: "Previously to this operation I had strongly advocated the advisability of dropping the pedicle and cutting short the ligature, and it was at my initiative that it was done. In fact, I did it myself."

The mode of treating the pedicle became a subject of anxious discussion. The evils which attended the use of the long ligatures were soon found to outweigh any advantage obtained by their service in drainage. The extra-peritonæal method was simplified by Hutchinson's introduction of the clamp, and for a long time it was only in cases where the clamp could not be used that any other method was sought for. I had hoped much from the écraseur, but only used it once. Others had spoken of crushing the pedicle and twisting off the cyst. I had an instrument made for tearing through it—a rough bluntish saw. But all these plans, without much trial, gave way before that combination of crushing and cauterizing for which surgery will be for all time indebted to your own Clay. Used at first by him for dividing omentum, both he and I suggested that this might be a good mode of dividing the pedicle in ovariotomy. Baker Brown was the first to carry out this suggestion in practice, and with immediate improvement in the results he obtained. Keith followed him, and, with occasional intermissions, has continued the practice. I also had very good results in thirty cases, and have sometimes blamed myself for not having given it a more extensive trial. I did not give it up, however, until I thought I had proved the ligature to be more trustworthy in cases of short pedicle. What is called the complete intra-peritonæal ligature—by which we mean the transfixion of the pedicle, tying it in two or more portions, cutting off the ends of the silk close to the knots, and returning them with the tied stump after cutting off the cyst—was by no means a common practice until long after the date of which I have been speaking.

The mode of closing the opening in the abdominal wall was one of the first things to attract my attention, and no one before me seems to have cared whether the peritonæum was included in the sutures or not. A very few still maintain that it is a matter of no consequence, and Kœberlé still asserts that it is better not to include it. I have not time now to trouble you with a thrice-told tale of how, by examination of patients who died after ovariotomy, and by experiments on animals, I convinced myself that by passing the sutures through the whole thickness of the abdominal wall, including the peritonæum, at such a distance from the divided edges as to permit two surfaces of the serous membrane being brought into contact when the sutures were tied, instead of merely bringing the edges together, a more permanent and complete union was obtained, and that one source of immediate danger was avoided—I mean the oozing into the abdominal cavity of blood, or serum, or fat from the divided tissues. So, too, we got rid of the inconvenience which patients who recover sometimes suffered from the adhesion of omentum or intestine to the abdominal wall.

I need not say much about the mode of dressing the

wound, but I think it is of some importance to note that from the first I was very careful to keep the wound as dry as possible. I had become convinced in my naval and military practice that water dressings and other moist applications (without going into any discussions as to the cause of pyæmia) were far inferior to dry dressings. For several years I used pads containing Skinner's mixture of calcined oyster-shells and oil of tar, covered with layers of cotton-wool, and supported by the gentle pressure of a flannel bandage; and the only modification made of late years in these dry dressings has been the substitution of the elegant and comfortable pads devised by your townsman, Gamgee, for the antiseptic and absorbent powder of Skinner.

The chief improvement made in the after treatment was in greatly diminishing the amount of opium. Large doses had often injured the patients, and I thought might have been the cause of death in some of the earlier cases.

By careful consideration of all the sources of danger, and by successive improvements in practical details, the mortality of ovariotomy became less excessive; and it was soon felt that the mortality after other surgical operations, both in London and provincial hospitals, as well as in private practice, was excessive and ought to be diminished. It was some years after Southwood Smith, Edwin Chadwick, and William Farr had begun their attempt to impress the importance of a knowledge of sanitary science upon the people of England, that its influence was much felt either in hospital practice or in domestic life; and I doubt whether the attention of surgeons was ever fully awakened to the possibility of reducing the mortality of great operations before Sir James Paget, at the meeting of the British Medical Association in London, in 1862, delivered his memorable address upon the study of the large group of diseases confounded under the name of "pyæmia."

Two years afterwards, at Cambridge, I addressed the association upon the same subject; and, after alluding to many sanitary measures, called attention to the bearing of the then recent researches of Davaine and Pasteur, and to the value of Polli's experiments upon the use of sulphurous acid and the alkaline and earthy sulphites in the prevention and treatment of many of the infectious and contagious causes of excessive mortality after operations. We were on the dawn of that phase of modern surgery when the so-called laws of sanitary science were tested in the laboratory by physiological chemistry and experimental pathology, and were afterwards acted upon by Lister and his followers.

During this time of reaction and activity in abdominal surgery, there was a corresponding development of the literature of the subject. It appeared in all shapes, and came from all quarters. The names of men who have since become celebrated were ushered in with their first contributions. Essays and records of cases abounded in periodicals. Pamphlets fell thick upon the public, and books were published which, though more or less incomplete, showed how fast material was accumulating for the future composition of elaborate treatises.

A review of all this matter poured out by the press, both English and foreign, on the question of ovariotomy, a few years before and after the date of 1865, enables us in a measure to gauge the extent of the interest the operation had excited, the change of opinion in reference to it, the success that had attended it, and to trace the indications which the reports contained of the spreading eagerness of the profession to seize every opportunity of giving to humanity the benefits which the practice was capable of conferring. But that which most forcibly strikes the attention in reading this literature is the contrast furnished by its tone and tendency with that which preceded and made way for the revival. Previously all that had been written was sceptical, doubting, speculative, or even prohibitory. Wavering expectation was modest in its demands, timid in its forecastings. There was more of fear than hope for the future. That future came, and with it the revival. Then, instead of the vague prophetic inspirations of the Hunters, the moving exhortations of Bell, the qualified and cautious encouragements of Blundell, the passive admissions of Astley Cooper that ovariotomy might be done—the conscientious shrinking, in an exalted reverence for the sanctity of human life, from the realisation of what seemed so desirable and within the compass of daring power—the pathetic wailings over sufferings unrelieved and deaths unresisted, and the despondency of professional inaction—we had reports of accomplishment which proved, by the wideness of their sources, their numerical importance, and the character of their authors, that the revival was assured. The question now changed from one of possibility to one of improvement, and reports of cases merged into discussions of practical details of operative and therapeutical interest. These, from their precautionary or conservative bearing, gave good augury of the vast ameliorations which we have seen within the last twenty years, and have brought us at the present time to nearly certain success when a careful surgeon operates in a favourable case. One may truly affirm that in all these outpourings of the revival period there was nothing vainglorious, boasting, presumptuous. As contributions to science they were serious, candid, plain, aiding further progress, informing to the profession, and useful to mankind. They bore upon them the signs of a wise resolution to advance circumspectly upon the path now open; and if tinged with a glow of the personal satisfaction which flows from a sense of duty in part fulfilled, and brightened with a gleam of the complacency reflected from the visible evidence, now so constantly before the public in the living, healthy survivors of the operation, that the profession as a corporate fraternity was equalling in its philanthropic energy that which had made the reputation and had been the pride and solace of its older "men of renown"—I can only say, not that it was excusable or admissible, but that this gratulation was no more than the circumstances prompted, or than may justly be felt by all who join in working, with a right mind and to a good issue, for the welfare of their fellow-creatures.

And here with 1865 I may end this retrospect of the revival of ovariotomy—of a rapid revolution in opinion and practice in less than ten years. Before 1858, the operation, like all good things, had been of slow growth. One hundred years ago, it was but a germ that might be descried in a lecture by John Hunter. Ten years later it was seed that fell from the hand of Bell. In little more than another decade it germinated as a living vitalising reality in Kentucky. Sixty years ago it was transplanted to the land of its philosophical conception. In twenty years more we find it a sapling on English soil—growing slowly at first, and up to 1858 looking as if it might prove no more than a withering gourd. But by 1865 its root had struck firm, its stem stood erect, its branches were wide and strong, known and sought as a refuge by the sick and dying. That it was no withering gourd has been proved by all that the world has since seen. Thousands of perishing women have been rescued from death; many more thousands of years of human life, health, enjoyment and usefulness have been given to the race; and to all future victims of a malady before inevitable in its fatality, it gives consolation, hope, and almost certainty of cure.

And passing over another twenty years—advancing

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from 1865 to 1884—we can rejoice that in all our metropolitan and most of our provincial hospitals, and from the best teachers on both sides of the Atlantic, medical students of to-day may hear of the good already done—may see for themselves how success is attained, and possibly, by the establishment of some new fact, or the discovery of some new device, they may increase our power over disease, and carry on the work to our successors.

I must leave it to others to speak of our great hospitals and important schools. But I cannot close this part of my address without one word of hearty congratulation to my successors at the small hospital where, with seldom more than six or eight beds at my disposal, in twenty years I completed 408 cases of ovariotomy, the deaths having diminished in successive periods of 5 years from 1 in 3 to 1 in 4 or 5, and in the last two years to 1 in 10. In six years, 1878–83, my three successors among them had 496 cases—some 90 more than I did alone in 20 years—the deaths falling from 1 in 5 in 1878 to 1 in 18 in 1883. And the recent publication of my colleague Doran adds to the satisfaction I feel in seeing my operative work so efficiently continued, the pleasure of noting how happily he is supplementing the opening of his career as an operator by the intellectually higher distinction of being acknowledged as a penetrating investigator and clear expositor of the obscure subject of ovarian pathology, to which he is devoting his philosophical earnestness. On this centenary of Hunter's Lecture we may truly claim that his example is followed, his foresight verified, and our exertions rewarded.

(*To be continued.*)

CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

By J. BURNEY YEO, M.D., F.R.C.P.,
Physician to the Hospital.

Lecture IV.

Catarrhal conditions of the Respiratory Passages.—Chronic Bronchial Catarrh.

(Continued from page 606).

In those cases in which the expectoration tends to become fœtid, cases of so-called *putrid bronchitis*, it is of the greatest importance, as I have already said, that our treatment should be directed to preventing or arresting the decomposition of the bronchial secretion. Inhalations of antiseptic agents which act also as expectorants are specially indicated, such as turpentine, tar, creosote, carbolic acid, &c., after the manner already described. In such cases the inhalation of a spray of a two to four per cent. solution of carbolic acid is exceedingly useful. We should also give turpentine, creosote, or tar internally. In such cases it is also advisable to combine tonic remedies with our expectorants, so as to maintain the general strength; we should also see that the patient has a nutritious and generous diet. The patient's apartment should be well ventilated and the air disinfected; for this latter purpose nothing is more agreeable than oil of eucalyptus. A mixture of one part of eucalyptus oil to six parts of rectified spirit may be diffused through the air by means of an ordinary hand spray, or by dipping cloths in it and suspending them in the room. An atmosphere so charged with eucalyptus vapour has a decidedly soothing and soporific effect, a real advantage in many cases.

The following combination is an excellent tonic and expectorant in these cases:—

℞ Ammoniæ Carbonatis, gr. xl.
Tinct. Nucis Vomicæ, ℥ lxxx.
Tinct. Cinchonæ Comp., ℥ j.
Spiritus Chloroformi, ℥ clx.
Infusi Senegæ ad ℥ viii.

M. ft. Mist.

Two tablespoonfuls three times a day or oftener.

Or when a more decidedly bracing tonic is required we may give the following:—

℞ Tinct. Ferri Perchloridi, ℥ clx.
Liquoris Strychniæ, ℥ xl.
Spiritus Chloroformi, ℥ clx.
Aquæ ad ℥ viii.

M. ft. Mist.

Two tablespoonfuls three times a day.

In those cases of chronic bronchial catarrh with very profuse secretion, cases to which the term bronchorrhœa is properly applied, the indications for treatment, as we have already seen, are

(1) to prevent the formation of the muco-purulent secretion, and
(2) to promote its expulsion.

Now besides the remedies directed to these ends which I have already referred to, there are others to which we may have recourse. Some authors advise the direct application of astringent remedies to the mucous membrane of the air passages in the form of *sprays;* fluids pulverised by means of a Siegle's spray producer, containing in solution such astringent substances as acetate of lead (five grains to the ounce), tannin (five to ten grains to the ounce), alum (five to ten grains to the ounce), perchloride of iron, Rhatany, &c.

These remedies have been found useful in the after treatment of cases of bronchorrhœa and putrid bronchitis. After the fœtor of the sputa and the decomposing processes in the bronchial tubes upon which it depends have been arrested by antiseptic inhalations, these astringent sprays are useful to remove the swelling, serous infiltration, hyperæmia and engorgement of the bronchial mucous membrane.

In addition to the other stimulating expectorants to which I have alluded as useful in these cases, I must not forget to mention senega, a medicine deservedly held in high repute in the treatment of chronic catarrhal conditions of the air tubes.

The following is an excellent stimulating expectorant in cases of chronic bronchial catarrh with profuse, stringy, adhesive secretions such as is often met with in aged people. The combination of carbonate of ammonia with senega is found to be very efficacious:—

℞ Ammoniæ Carb., gr. xl.
Sodæ Bi-carb., gr. xl.
Tinct. Camphoræ Comp., ℥ iv.
Spr. Chloroformi, ℥ clx.
Infusi Senegæ ad ℥ viii.

M. ft. Mist.

Two tablespoonfuls every five or six hours, with two tablespoonfuls of hot water.

The addition of hot water materially increases its expectorant power.

It will be noted that this mixture contains a small quantity of opium (in the compound tincture of camphor), but it is a very small quantity, only one-eighth of a grain in a dose; and this leads me to make a remark which is of the greatest importance in the management of cases of chronic bronchial catarrh, with profuse secretion, in the aged: be very cautious in the use of narcotics, and especially of opiates, in such cases. They are extremely badly borne, for by diminishing the sensibility of the bronchial mucous membrane, the

efforts of coughing are diminished, and the patient may fall asleep, sometimes never to wake again ; for in this sleep the mucus accumulates in the air passages, the access of air to the air cells is more and more interfered with, carbonic acid accumulates in the blood, and the patient dies poisoned by it. It is essential always to bear this in mind in treating the coughs of aged persons.

I must also not forget to mention the value of an occasional emetic in those cases of chronic bronchial catarrh with profuse suffocative secretion. The mechanical compression which the lungs undergo in the act of vomiting, not only tends to the expulsion of the mucus accumulated and retained in the air passages, but it also relieves pulmonary engorgement by simultaneous compression of the blood vessels.

Gerhardt has strongly recommended the application of manual compression to the chest and abdomen in cases where it is difficult by ordinary means to procure free expectoration and unloading of the air passages of the morbid secretions accumulated in them. He maintains that manual pressure on the external surface of the thorax and abdomen, applied during expiration, leads to the following good results :—

(1) Elevation of the diaphragm and a consequent reduction of the pulmonary dilatation.

(2) Increase of vital capacity.

(3) Diminution of the frequency of respiration.

(4) Promotion of expectoration.

Cases in which the air passages are occluded by viscid secretions, which the feeble muscular power of the patient is unequal to expel, are specially adapted to this mechanical treatment. The expiratory effort is directly strengthened by the associated manual pressure from without, and expectoration is also, indirectly, promoted by the more vigorous muscular activity, resulting from increased supply of oxygen. Gerhardt mentions the case of a patient with large bronchiectatic cavities in the lower lobe of the left lung, in which by inhalations of turpentine he soon succeeded in removing the odour of the sputa, but the expectoration was small, and physical examination showed that the cavities remained for several days together constantly filled. He then endeavoured to promote and increase the expiratory effort mechanically by placing the patient on his right side, and daily employing manual pressure, by which means he succeeded in preventing the retention of the sputa.

Stokes estimated highly the effect of counter-irritations and revulsive treatment in cases of chronic bronchial catarrh, and my own experience quite confirms his view. Stokes used to order a large portion of the chest to be sponged daily with a liniment composed of spirit of turpentine and acetic acid, so as to keep out an erythematous state of the skin. Stokes thought that besides the counter-irritation thus produced some of the ingredients were absorbed by the surface.

No doubt the vapour of the more volatile constituent (turpentine) may be inhaled and thus act locally on the bronchial mucous membrane. Patients themselves learn the value of these embrocations, and when once they have used them ask that they may be renewed.

The Linimentum Terebinthinæ of the B. Pharmacopœia is a useful form, to which I occasionally add, in the cases of scrofulous children, a drachm or two of tincture of iodine to the ounce.

The Linimentum Terebinthinæ Aceticum (B. P.) is also very valuable, it contains equal parts of oil of turpentine, acetic acid and camphor.

The Linimentum Crotonis is also useful, as a revulsive, in some obstinate cases of chronic bronchial catarrh; the disadvantage attending its use is that it brings out an unsightly eruption of the skin, especially if the liniment be used of the full strength of that in the Pharmacopœia ; but when diluted with twice its bulk of Linimentum Saponis there is little objection to its employment.

The following is the formula for Stokes' embrocation :—

℞ Spiritus Terebinthinæ, ℥ iii.
Acidi Acetici, ℥ ss.
Vitelli Ovi, j.
Olei Limonis, ℥ j.
Aquæ Rosæ ad ℥ vj.

M. ft. Embroc.

I must now consider, very briefly, the value of alterations of atmospheric pressure in the treatment of chronic bronchial catarrh. This "pneumatic" method of treating chronic catarrh of the air passages is much more common in other European countries than in our own, and most of the large cities on the Continent and many of the popular health resorts possess "pneumatic institutions" for the treatment of pulmonary affections by alterations of atmospheric pressure.

Various portable apparatus, notably one devised by Waldenberg and another by Schnitzler, are also in common use in Germany and Russia for this purpose.

The "pneumatic chamber," into which the patient enters bodily and remains for some time, is chiefly employed for inspiration of compressed air ; but by means of suitable arrangements, he can be made to *inspire* compressed air and *expire* into rarefied air. So, also, by means of the portable apparatus I have mentioned he can either *inspire* compressed or rarefied air, or *inspire* the former and expire into the latter.

It has been found that chronic bronchial catarrhs, even when obstinate and of long standing, are favourably influenced by pneumatic treatment. The pressure which compressed air exerts upon the swollen and hyperæmic respiratory mucous membrane, lessens the calibre of its vessels and reduces the afflux of blood, while it promotes the efflux of blood and the fluids of the tissues, and in this way diminishes the swelling.

This diminution of the flow of blood to the mucous membrane and promotion of the efflux of fluids from it lessens the amount of secretion and widens the lumen of the tubes, giving freer passage to the inflowing air, and thus increasing the amount of air that can enter and leave the air cells, and greatly aiding pulmonary ventilation.

If there is but little secretion in the bronchi, and expectoration is difficult, while the tubes remain permeable to compressed air, then this air of higher tension rushes into the partially collapsed air cells beyond the tubes and thus imparts increased expulsive power and facilitates expectoration.

Expectoration is also promoted by expiration into rarefied air, as by a simple physical process it removes hindrances to the outflow of air from the air passages. I cannot enter now more fully into the theory of pneumatic treatment, but those who have had the largest opportunities of watching its results maintain that its beneficial effect in the majority of cases of chronic bronchial catarrh is permanent, that the catarrh is often entirely cured, and even in incurable cases, dependent on some more deeply seated pulmonary lesion or cardiac affection, it is greatly alleviated.

Those who suffer habitually from bronchial catarrh in the winter should, if possible, pass that part of the year in a climate where they may be exposed as little as possible to sudden changes of temperature, to chilling fog and mist and to cold winds, and where they can get, without danger, a certain amount of exercise in the open air with plenty of sunshine.

The choice of any particular place is often determined by considerations of convenience, expense or society. In our own country the best wintering places

for most cases of chronic bronchial catarrh are Torquay, Penzance, Bournemouth, the Undercliff in the Isle of Wight, and St. Leonards.

But a drier and warmer winter climate than can be obtained in this country is advisable in many cases, and for these we can choose from the various resorts on the Western Riviera or, if we consider the climate of the Riviera too exciting, we may select Algiers or Tangiers, or if we wish a very dry climate there is Egypt and the Nile.

Madeira, Huelva, Malaga, Ajaccio, Palermo, Corfu, and many other places, offer also suitable winter quarters for the catarrhal subject.

You are perhaps aware that in France it is very common for sufferers from chronic bronchial catarrh to be sent during the summer months to go through a course of sulphur waters at one or other of the sulphur spas which are numerous in that country, especially in the Pyrenees.

The French physicians are fond of dividing their catarrhal cases into three classes :—the scrofulous, the arthritic, or rheumatic and gouty, and the dartrous. By the "dartrous" they mean constitutions prone to cutaneous eruptions. This classification has always appeared to me somewhat artificial, but they found upon it indications for the application of their different mineral springs to individual cases.

The arthritic or gouty cases are sent to Eaux Bonnes, Cauterets or St. Sauveur in the Pyrenees, or to St. Honorè in the Department of Nièvre ; or if the catarrh is irritative and congestive to Mont Dore, La Bourboule, or Plombières. Mont Dore is also especially adapted to the treatment of cases of chronic bronchial catarrh complicated with asthma.

The scrofulous are sent to Barèges in the Pyrenees, to Aix in Savoy, or the adjacent Challes, or to Uriage, the mineral waters of which contain chloride of sodium as well as sulphur, or to St. Gervais.

The "dartrous" or "herpetic" are sent to La Bourboule or Royat. But, as I have already said, this classification, both in theory and practice, is a little artificial.

The German physicians on the other hand consider those mineral springs which contain chloride of sodium in small quantity or, still better, chloride of sodium combined with carbonate of soda and containing some free carbonic acid as specially suitable to the treatment of chronic catarrh of the air passages.

Ems is pre-eminently the spa for this purpose as it contains both chloride of sodium and carbonate of soda in small quantity. *Soden*, near Homburg, is also the type of a weak chloride of sodium water, containing free carbonic acid, and it enjoys a great reputation in Germany in the treatment of these cases.

These courses are often followed advantageously by a few weeks passed in the moderately elevated mountain resorts of the Black Forest or Switzerland.

When chronic bronchial catarrh occurs in obese, plethoric middle-aged people who are free livers, a course of some more active mineral spring is indicated, and such patients often derive advantage from a few weeks' treatment at Kissingen, Marienbad or Carlsbad.

In all these health resorts the various kinds of baths available enable the physician to submit his patient, if he considers it desirable, to those "repeated energetic sweatings" of which Niemeyer speaks so highly in these cases. Powerful revulsion to the skin is undoubtedly an efficient means of relieving bronchial congestion.

As I have already said, if the bronchial catarrh is dependent on or associated with the existence of some other disease or constitutional state we must not lose sight in our therapeutic efforts of the original disturbance.

In the case of scrofulous children, we must look carefully to the general nutrition, give cod-liver oil, enjoin residence at the sea-side, the use of salt-water baths, free exercise in the open air in suitable weather, and mix some iodine with our embrocations.

If there is a well-marked syphilitic taint, we should of course employ iodide of potassium.

When chronic bronchial catarrh is a complication of heart disease, we must enjoin strict repose in a warm but well-ventilated apartment, we must give supporting food and medicines ; and some form of alcoholic stimulant, whatever the bigoted advocates of total abstinence may say to the contrary, is of great value. In cases of mitral stenosis digitalis will be helpful and in feeble anæmic cases, it may be combined with iron.

It is especially necessary in these cases to obtain free and regular evacuations from the bowels, for by unloading the intestines, the descent of the diaphragm is facilitated and any derivation of fluid from the portal venous system tends, indirectly, to relieve the engorgement of the right side of the heart. I think I have now touched on all the chief points to be considered in the treatment of chronic bronchial catarrh ; their application in the management of individual cases must be left to your own sound judgment and discretion.

THE COMMA-SHAPED BACILLUS A ZYMOGENIC, NOT PATHOGENIC, ENTITY.

By GEORGE WATERS, Surgeon-Major Indian Medical Department.

Professor of Pathology in the Grant Medical College, Bombay.

On reading in the *Journal of the British Medical Association* Dr. Koch's interesting and careful report on his investigations on Indian cholera, it occurred to me that I had already seen such organisms as are figured in his diagrams, in material other than is associated with that disease. I then set to work on the microscopical examination of mucus from the small intestines of persons who had died from ordinary affections, and found curved bacilli identical in shape, size, and appearance with *komma-bacillen* in all, or nearly all. These bacilli, it is true, are to be found much more plenteously in the flaky mucus so commonly met with in the ileum after death from cholera than elsewhere in the digestive tract or in this part of the bowel under other circumstances. But I have found identical organisms in neutral or slightly alkaline urine in similar abundance ; and the ordinary mucus, even of cholera, shows not many more bacilli than are to be seen in the mucus of the small intestines of persons who have died from other causes. Ordinarily, indeed, both as regards cholera and other affections, the intestinal mucus examined under the microscope shows very few curved bacilli, and a great number of straight, large, putrefactive bacteria, micrococci, singly, in zoogloea, and in chains, and spirilla. In human urine I found curved bacilli within five minutes of its being voided from the bladder. Some six hours later the same urine shows a slight increase in these organisms ; and this slow multiplication goes on till the urine becomes neutral or slightly alkaline, when they are to be seen in numbers such as are only elsewhere to be found in cultivations from the flaky mucus already mentioned. I think it unnecessary to give a diagram of the curved bacilli to be seen in abundance in neutral or slightly alkaline urine, as most medical men must by this time be familiar with those faithfully pourtrayed by Dr. Koch ; and then anyone can examine

them for himself with little or no trouble. The method of examination I adopt is as follows :—A drop of urine from the surface is placed on a glass slide, which is then heated slowly at the flame of a spirit lamp till evaporation is complete, and after a few minutes the dried residue is covered with a few drops of an alcoholic solution of gentian violet. Five minutes afterwards the excess of colour is washed off with distilled water, and the slide again heated over the flame of the spirit-lamp. I found this second heating absolutely necessary to kill the organisms, many remaining still alive after the first heating and the removal of the excess of colour, showing thus a most remarkable tenacity of life. The preparation may now be studied with a $\frac{1}{12}$th immersion lens, oil or water. A specimen mounted in Canada balsam can be very well studied with a $\frac{1}{8}$th object-glass and No. 2 eye-piece. Latterly I found that methyl blue gives a better result than gentian violet, for though not so bright in colour as the latter, it somehow defines the micro-organisms more distinctly. It is to be noted, however, that the process of staining is much slower with the methyl blue than with the gentian violet. Quite recently I got excellent results from using a mixture of equal parts of the two colours.

It would appear, then, that curved bacilli are not specifically connected with cholera, at all events not in the light which the head of the German cholera commission would have those organisms regarded. They are nevertheless an indubitable pathological feature of that disease ; but this, I think, will soon be shown to be something more in the shape of a consequence than a cause of the malady. An experienced and reliable observer like Surgeon-Major Lewis testifies to the presence of *komma-bacillen* in healthy saliva. They can be seen by anyone in healthy urine, and in the mucus of the small intestines of those who have died from ordinary diseases, and are thus presumably discoverable throughout the mucous tract under most circumstances. This leads me to the expression of an opinion that has been gaining ground in my mind for some time, which is, that the organism in question should be regarded more as a physiological than a pathogenic entity. Dr. Koch's own careful observations lend a measure of support to this supposition. He noticed that a colony of *komma-bacillen* in cultivation to a certain extent dissolved the sterilised proteids on which they were nourished ; presumably, the proteids were thus converted into peptones. He noticed also that for some days these organisms multiplied to the exclusion of all others in the flaky mucus of cholera kept on linen in a moist atmosphere, and then gave place to those characteristic of putrefaction. Now, this is exactly what I find in the case of urine ; until it becomes markedly alkaline, or perhaps I should say, till decomposition commences, it shows myriads of curved bacilli to the exclusion of all other organisms ; whilst beyond this point large straight putrefactive bacteria predominate. Indeed, the former are seldom to be found in decomposing urine. This would appear to indicate the small *komma-bacillen* to be fermentive, and the large straight bacilli, putrefactive organisms. And the fact that curved bacilli are found under varied circumstances in different regions of the mucous tract surely points to the probability of their performing a certain set normal piece of work in the animal economy. In urine we have seen that their life history is closely associated with the pre-putrefactive or fermentive stage of the change which this secretion undergoes. Now we either know or suspect that fermentation plays a part in the digestion which takes place in the lower portion of the small intestine, but hitherto, we have failed clearly to identify the agency by which it is accomplished. And here, I think, some light has been shed by Dr. Koch's observation that growing colonies of *komma-bacillen* liquefy in their immediate neighbourhood the proteids on which they grow. We have it on good authority that the bacillus butyricus is commonly found in the stomach and intestine of herbivora ; and the fact that this organism has the property of decomposing cellulose at once explains its importance in the digestive process of such animals. Why then should a similar zymogenic function not be attributed to an organism like the comma-shaped bacillus which seems to have its normal habitat in the presence of mucous membrane in the human body? Indeed I should not be surprised to find it conclusively proved that the comma-shaped bacillus is specially concerned in nitrogenous fermentation. Dr. Koch has drawn much more momentous inferences from arguments of a not less speculative character, and that, too, in the face of experiments, the negative result of which went to disprove his own hypothesis. And if I say that a superabundance of comma-shaped bacilli is found in the small intestines of cholera victims, because it would appear that whatever gives rise to that ailment brings about exalted fermentation in that part of the alimentary canal, I shall at least have as much logic in my assertion as he had in declaring that these organisms must bear a causal relation to the disease.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON TEMPERANCE HOSPITAL.

TWO CASES OF INTESTINAL OBSTRUCTION.

(Under the care of Mr. A. PEARCE GOULD.)

Acute Intestinal Obstruction—Laparotomy—Death.

E. E., aged 55, was admitted into the London Temperance Hospital under Mr. Gould's care on February 27th, 1884. He was a stationer by trade, and had never been a very strong man. For the last four years he had been subject to attacks of colicky pain across the belly, which were always relieved by a hypodermic injection of a small quantity of morphia. These attacks were not accompanied by constipation ; the size and character of the motions passed were natural. On the morning of February 23rd, on getting up, he was seized with pain of the same character across the belly, but this time accompanied with retching. The usual dose of morphia failed to give any relief, and in a few hours violent vomiting set in. These symptoms continued until admission. The vomited matters were at first bilious, then light yellow in colour, and later on dark brown, with a distinctly fæcal odour. There was no passage of fæces or flatus after the early morning of February 23rd. Since February 25th, patient had not passed more than half a pint of urine. The treatment previous to admission to the hospital consisted of opium and belladonna by the mouth, and the repeated administration of large enemata by a long rectal tube ; no motion had been brought away.

On admission, the patient was found lying on his back, with thighs drawn up, with a very haggard expression of face, and complaining of severe pain across the umbilicus. The skin was cold ; temperature in axilla 97·6°, pulse small, compressible, 75. He was constantly retching and occasionally brought up some dark fluid with a distinct fæcal odour. The tongue was dry

with a thin yellow-brown fur; the belly was uniformly but moderately distended, and there was neither dulness nor tumour to be made out in it. There was no external hernia at any of its usual or unusual situations; examination per anum showed the rectum to be empty and did not reveal any abnormal condition. It was decided to perform laparotomy at once.

Operation.—Under the carbolic acid spray, and with full antiseptic precautions, Mr. Gould made an incision two inches long in the middle line of the belly, about two inches below the umbilicus. Having divided the peritonæum upon a director, he passed his forefinger into the right iliac fossa and at once felt an "internal hernia." Falling into the pelvis were some coils of contracted intestine in marked contrast to the distended bowel all around it, and these were felt to be fixed to the cæcum by a narrow tight cord or band. The wound was slightly enlarged downwards, and then after some difficulty this band was brought into view and a double chromicised catgut ligature was passed beneath it and tied. The cord was then divided between the ligatures and at once Mr. Gould felt the contracted coil of gut fill out. The wound was closed with deep and superficial sutures, and dressed. A strip of iodoform gauze was placed next the skin, over that some carbolic charpie, and outside all the usual carbolic gauze dressing. The man was carried back to a warm bed, and was ordered to be kept very quiet, to have only icè to suck or iced water to drink, and to have opium if in pain. His pulse after the operation was 84, rather fuller than before. When seen five hours later, he was found complaining of severe pain in his back, having lost his old pain in the belly. He had vomited a little since the operation; there was hiccup. Temperature 98·8°, pulse 120. Respirations quick, but abdominal. A quarter of a grain of morphia was given under the skin. His pulse became feebler, the breathing quicker and entirely thoracic, and delirium set in, and he died eight hours after the operation. The only other treatment adopted, was the application of a sinapism to the præcordia and the hypodermic injection of half a drachm of ether twice.

Autopsy.—On opening the belly the small intestine was found to be slightly adherent, and the peritonæum was dull and congested. The vermiform appendix was found to have been divided about half-an-inch from the cæcum, and its other end was found adherent to the mesentery by firm old adhesions; the two ligatures were holding the divided ends of this structure securely. A coil of the ileum about two feet from the cæcum bore marks of having been constricted, and was still adherent in the form of a knuckle but was quite patent; this length of the intestine was greatly congested, but was not gangrenous. The intestine below this constricted part was full of flatus. When the two ends of the divided vermiform appendix were held in apposition, it was quite evident how the coil of ileum had been strangulated.

Chronic Intestinal Obstruction—Right Colotomy—Death.

E. W., a widow, aged 62, was admitted to the London Temperance Hospital under the care of Mr. Pearce Gould, May 20th, 1884. She stated that she had always enjoyed perfect health until three years before, when she had an attack of obstinate constipation with tympanites, vomiting and abdominal pain; this was relieved by internal remedies and enemata. Since that time the motions had been normal in appearance, but passed only once in two days. Her bowels had not been open since May 7th. For the first few days she experienced only a sense of nausea. On May 13th she noticed pain and rumbling in the belly, and that the belly was swollen. This swelling gradually increased up to the time of admission. On May 18th, immediately after an enema had been administered, she vomited about a pint of brown fluid with a fæcal odour, and this relieved the pain. Next day she vomited about two pints of very fœtid fluid with lumps of fæces in it. The patient walked to the hospital. She was emaciated, with a somewhat anxious expression, but not one expressive of much suffering. The tongue was moist with a thin brown fur on the dorsum; the woman asked for solid food. The belly was distended, measuring at the level of the umbilicus 34½ inches. The bulging of the right flank was distinctly more marked than on the left side. The veins of the surface were enlarged. There was no external hernia, and no tumour was to be felt through the tense abdominal walls; the belly was everywhere tympanitic. The rectum was dilated, empty, no stricture felt in it; the uterus was found to be enlarged, and quite filling the brim of the pelvis; it was freely movable; the left ovary was also enlarged. A good deal of flatus was passed from the bowel. Temperature 99·2°, pulse 100. The house surgeon ordered an enema containing castor oil, croton oil, and turpentine. Two pints were administered, but returned without any fæcal matter; he then applied leeches to the belly, followed by hot fomentations, and gave opium and belladonna by mouth. She was placed on spoon diet.

May 23rd.—There was more pain in the belly; slight nausea, no vomiting since admission. Mr. Gould found that the left flank was less tympanitic than the right; he ordered the simple enemata, which had been given from time to time without avail, to be discontinued.

May 25th.—Vomited beef-tea and milk; in the afternoon she vomited about 1½ pints of distinctly fæcal matter on two occasions. Mr. Walsham kindly saw the patient and when she was under the influence of chloroform, passed his hand into the rectum and sigmoid flexure, but could not detect any obstruction. It was accordingly decided to open the right colon.

May 26th.—8 a.m. Mr. Gould opened the ascending colon in the right loin and liberated about four pints of liquid fæcal matter exactly similar in appearance to the material the patient had vomited. During the course of the operation, the peritonæum was wounded, and so the finger was introduced into the abdominal cavity, and the line of the peritonæal reflection was exactly ascertained; the aperture in the membrane was then nipped up and surrounded by a catgut ligature. The patient was considerably collapsed after the operation; she recovered somewhat in the afternoon, but gradually sank and died 22 hours after the operation. Up to the time of death there was a free discharge of fæcal matter from the artificial anus.

At the *autopsy* a stricture of the middle of the transverse colon was found. It was 1½ inches in length, extended all round the bowel, and just admitted the forefinger; the omentum was puckered in, and the walls of the bowel were considerably thickened and indurated at the seat of the stricture. There were no secondary deposits in lymphatic glands or in any of the viscera. The peritonæum was perfectly smooth and glistening. There was a little clear serum in the pelvis; intestines somewhat congested. There was a fibroid tumour of the uterus the size of a child's head, and enlargement of the left ovary. There was atheroma of the aorta and of the aortic and mitral valves, hypostatic congestion of both lungs, with old pleuritic adhesions on the left side.

Remarks.—These two cases may be usefully studied together as presenting in a marked manner the contrast between acute and chronic intestinal obstruction, or rather between strangulation and simple obstruction. In each case the onset of the "obstruction" was sudden, but in the one was complete, and in the other incomplete, flatus being freely passed. In the one case

vomiting set in within a few hours, speedily became fæcal, and was urgent throughout the course of the malady; in the other vomiting was delayed for eleven days, and was subsequently absent entirely for six days, during which liquid food was freely taken. In the one case the abdominal distension was slight and uniform; in the other it was very great and less marked in the left than the right flank. In the one case collapse was an early and a marked symptom, while in the other it was absent until the time of operation, the patient being well enough to walk to the hospital a fortnight after the commencement of the illness, and rather resenting being confined to bed and placed on spoon diet.

The previous attacks of colic in the case of acute strangulation by the vermiform appendix are of some special interest. Such a history is not rare in cases of intestinal strangulation by band, and a question naturally arises as to their cause. It is impossible to think that they are due to the bowel slipping beneath the band, especially as in this case they were not accompanied by constipation. More probably they were due to some traction exerted on or by the band, and hence the relief obtained from morphia. The only treatment which offered any prospect of success was that which was ultimately adopted, and it is a matter for regret that operation was not resorted to earlier, when the chances of success would have been greater. So far as the operation itself was concerned, by following the suggestion of Dr. Kingston Fowler, the seat of strangulation was at once found, but it was a matter of considerable difficulty to expose the band, and then to ligature and divide it without injury to the distended coils of intestine all around it. Death in such a few hours after the operation, and from peritonitis, suggests a serious question. All the known precautions were used to render the operation aseptic; a steam carbolic spray was used throughout; the abdomen and the operator's hands and instruments were all carefully cleansed in five per cent. carbolic lotion, and the rapidity with which the inflammation set in excludes septic influences spreading in from the dressing. The question I would put is this. Is not the division of the vermiform appendix attended with danger of the escape of septic mucus, &c., into the peritonæal cavity? It is a mucous canal, continuous with the cæcum, and even when a double ligature is placed upon it the substances lying in the tube between them have free access to the cavity when the section is made. It is hardly open to doubt that the cause of peritonitis in this case was some *materies morbi* introduced into the peritonæal cavity at the operation, and it seems reasonable to think that it escaped from this mucous canal when cut across. If so, what is the right line of practice in any similar case? Clearly the band must not be left or the strangulation may recur; even were it possible to bring the divided ends to the surface and stitch them in the wound this would leave a double possibility of internal strangulation occurring. Two alternatives suggest themselves. One plan would be to attempt to detach the tube where adherent at its extremity by the division of solid fibrous adhesions, from which no septic extravasations would ensue. The possibility of this would depend upon the position, and mainly upon the character of the adhesion. Were it impossible the only other plan would be to divide the tube, and endeavour to render the parts beyond the ligatures aseptic by covering them with finely powdered iodoform.

One fact of interest in connection with the second case is the vomiting of very large amounts of distinctly fæcal matter at long intervals; that vomited in the hospital was indistinguishable from the matter which escaped from the colon when opened. It would have been far better if in this case, too, the operation had been performed earlier, when the patient's strength was fair, but the absence of all acute symptoms for some days after admission to hospital induced me to delay, and the result was that the patient never rallied from the shock of the operation. The case affords a remarkable confirmation of the views of Mr. H. O. Thomas in the fact that vomiting had first occurred immediately after an enema had been administered. The subsequent attacks of vomiting were not excited by similar causes. Both these cases were previously under the care of my friend, Dr. F. A. Hill, of St. John's Wood, who kindly placed them under my care.

Medical Times and Gazette.

SATURDAY, NOVEMBER 8, 1884.

The outbreak of cholera at Nantes seems to be a more serious affair than was at first supposed. While the epidemic is completely arrested in the South of France, it seems to be disseminating its germs abroad, and reaching points hitherto not infected. The first case which occurred at Nantes, in an hotel, on the 24th October, was of the type called "foudroyant." From the 24th October to the 1st of November the number of cases amounted to 36; from the 1st to the 2nd of November the number rose to 25; from the 2nd to the 3rd 10 deaths are recorded, the number of cases not being stated. The latest statistic is 13 fresh cases and 6 deaths.

The population of Nantes, one of the most prosperous maritime and commercial cities of France, exhibits a much higher moral tone than the inhabitants of Toulon and Marseilles, when the epidemic broke out. The temper of the two principal maritime races of France, the Bretons and Provençaux, is thus brought into vivid opposition. Although all the sea coast of France furnish men to the navy, still, more than two-thirds of French seamen are either from Brittany or from Provence. Without disparaging the eminent qualities of the Southern race, it must be confessed that the Breton has a higher sense of moral dignity, and is better able to look danger coolly in the face, not only upon the field of battle, but under the more dispiriting form of an epidemic disease. There were many instances of heroic conduct at Toulon, at Arles, and at Marseilles, and many a valuable life was nobly sacrificed; but the mass of the population simply ran away, disseminating the germs of disease on its road. At Nantes no panic has taken place, no shops are shut, no streets are empty. The city retains its usual animated appearance. A wooden hospital has been set up in the vicinity of the Hospice St. Jacques, an establishment situated outside the town. To these "baraquements" choleraic patients are sent. An observation ward has been put up at the Hôtel Dieu. One case of fatal cholera has occurred at Paimbœuf, close to Nantes.

In spite of the differences of opinion as to the propriety of the course of action pursued by Dr. Rabbeth in risking his own life on the slender chance of saving

that of one of his patients, adverse views were conspicuous by their absence at the meeting held at King's College, to consider the best means of raising some permanent memorial to his act of self-sacrifice. In fact it was felt that some recognition was indispensable and the questions raised were merely as to the scope and the form of the memorial. Both in King's College, and in the Royal Free Hospital permanent record was desired, but Sir William Gull introduced a new factor in proposing, as he suggested in a letter to a contemporary, that the best way of allowing the non-medical public to show their appreciation, would be to endeavour to raise funds for a medal to be given annually at the University of London. As will be seen from a letter from one of the Secretaries which we publish on another page, harmony was ensured by forming a large committee from both hospitals, and by securing Sir William Gull as one of its members. The ultimate form of the memorial must obviously remain uncertain, until all who admire an act of self-sacrifice in the practise of medicine have had their attention drawn to this effort, but the composition of the committee shows that the threefold object will be kept in view. In other words, it is hoped that this may be a *public* memorial, not merely one raised by those members of the profession who knew and esteemed Dr. Rabbeth.

Last Tuesday's meeting of the Pathological Society was not so well attended as the first meeting, but the programme contained several specimens of unusual interest. Drs. Lanchester and Hobson brought forward the specimen which gave rise to the best discussion, in the shape of a consolidated lung, which during life had given rise to all the symptoms and signs of empyema, with the single exception of not yielding pus to the aspirator. A free opening had, however, been made in two places, and a drainage-tube inserted in each, but without much benefit. The authors regarded the case as one of caseous pneumonia, and some of the speakers were inclined to agree in this view; others, however, thought it bore more resemblance to some form of new growth, such as lympho-sarcoma invading the lung throughout. Ultimately the specimen was referred to the Morbid Growths Committee. Dr. Percy Kidd read an account of four aneurysms of the heart he had met with at the Brompton Hospital. They all occurred in males; one was probably congenital, and the others appeared to be associated with rheumatism and endocarditis. Dr. Hale White showed a specimen of coarctation of the heart and aorta. Want of time prevented Dr. Acland from bringing forward his cases of ulceration of the intestine in connection with disease of the spinal cord with such completeness as to enable us to form any opinion as to the soundness of his views, but seeing that it is admitted that under the influence of nervous lesions nutritive changes may take place in the skin, bones, and joints, there is nothing impossible or even very improbable in similar nutritive disturbances being found in the intestine as a result of disease of the nervous system. Dr. Howard Tooth exhibited what appeared to be a diffuse lympho-sarcoma of the liver in a child, and Mr. Barker recounted a case of what he believed to be epithelioma of the superior maxilla, but the only two speakers who followed him did not agree either with him or with each other as to the nature of the tumour. Mr. Victor Horsley exhibited in the ante-room the body of a monkey which had died that day, exactly fifty-four days after the removal of its thyroid gland, and which presented a sufficient number of the signs of the disease to justify his calling it a case of artificial myxœdema. Should his further investigations in this direction be followed by like result, they will confirm the views of Kocher, which have more than once been expounded at the Clinical Society, as to the important part played by the removal of the thyroid in this strange disease.

The monthly meeting of the Obstetrical Society was held on Wednesday. The usual number of specimens was exhibited. One gentleman was in so great a hurry to show a new instrument (or rather a trifling modification of an old one) that he had not even waited till the instrument maker had completed its manufacture, but exhibited it "in the rough." While admiring the activity of this gentleman, we nevertheless think aspiring inventors will gain more credit for their contrivances and more profitably occupy the time of the society if they will wait until they have tried their instruments in practice before bringing them down to exhibit. The greater part of the evening was occupied by the reading of a long and elaborate paper by Dr. Graily Hewitt (illustrated by a printed table of cases which was distributed), on uncontrollable vomiting of pregnancy. Dr. Hewitt, as is known, thinks this vomiting is a result of flexion or version of the uterus; and his paper was an argument in favour of this view. Dr. Champneys and Dr. Galabin spoke adversely to the opinion defended in the paper; and then, upon the motion of Dr. Barnes, seconded by Dr. Hicks, the discussion was adjourned till the next meeting.

We have been requested to remind our readers that on Thursday next, the 13th, Mr. Jonathan Hutchinson, F.R.S., will deliver the first Bowman Lecture at the meeting of the Ophthalmological Society, when the meeting will commence at 9 instead of at 8.30, as usual. His subject will be "Diseases of the eye which appear to be in connection with gout," and we have no doubt that there will be a very large attendance of members and visitors, not merely because they will have the pleasure of listening to a masterly address, but also as a compliment to the distinguished man of science in whose honour the lectureship has been founded. The lecture will appear in our pages in an early number.

In reply to the petition of the Association of Members of the Royal College of Surgeons, praying for the direct representation of the medical profession in Parliament, Mr. Gladstone has written, as might have been expected, that he does not think that particular proposition would commend itself to the judgment of Parliament. He would gladly welcome the presence of more members of the medical profession in the House of Commons, but in his opinion this can

only be secured by the means which are at present open to all other professions. He is further unable to admit the contention that other learned professions are directly represented in the Legislature. There, we suppose, the matter will end. Meanwhile, in another part of the kingdom, some equally ill-advised politicians are doing their best not only to oust from the House of Commons one of the few men who are thoroughly versed in medical problems, viz, Sir Lyon Playfair, but also to bring the representation of Universities into discredit. One of the strongest arguments in favour of retaining the University seats is that less political rancour enters into the choice of the representatives than in ordinary parliamentary elections. The conservative graduates of the Universities of Edinburgh and St. Andrews, by pitting the Dean of Faculty, Mr. Macdonald, Q.C., against their present representative, Sir Lyon Playfair, are not only acting ungratefully to one who has been a faithful servant of their Universities, but are giving an additional handle to those reforming politicians who would dearly love to make an end of University representation for good and all.

On Saturday last the life-sized portrait in oils of Sir William Mure Muir, K.C.B., M.D., who lately retired from the Directorship of the Army Medical Department, was presented to Lady Muir in the name of the Officers of the Medical Staff serving in all parts of the British Empire. Owing to the serious illness of Sir William Muir it was with much regret found necessary to dispense with the deputation which it was intended should formally present the portrait, and the proceedings were, therefore, strictly private. The portrait, a three-quarter length, by Mr. W. R. Symonds, is a most striking likeness, and elicited warm commendations as a work of art, not only from the recipient, but also from all who had seen it at the artist's studio. The original (of which this is a replica by the same artist) adorns the walls of the Medical Staff Mess at Netley, forming there not only a permanent memorial of the lately retired Director-General, but also a lasting testimony of the high appreciation by the Officers of the Medical Staff of the pre-eminent services rendered by him to the Department.

The work of the Medical Schools, University and Extra-mural, writes our Edinburgh correspondent, has fairly commenced for the winter. The numbers are not made up yet, but the matriculation register, we understand, shows no signs of falling off. Most of the introductory lectures in the University showed a healthy spirit, partly no doubt the result of the Tercentenary Celebration, partly the outcome of more suitable environments. It is to be hoped that the stimulus, however derived, will have an enduring effect and that increased opportunity will result in extended accomplishment.

We observe with pleasure the announcement by the Professor of Pathology that the laboratory will be open to a limited number of graduates and senior students for the prosecution of research. We have little doubt that good work will follow this step, and we feel assured that it will be no fault of the able and popular assistant (Dr. Sims Woodhead) if our full expectations are not realised. His contagious enthusiasm must influence in the highest way the work of such a laboratory. We look in vain for a similar announcement regarding the physiological department. At the first meeting of this class in the new buildings, the professor went out of his way to describe in elaborate detail the appliances and purposes of upwards of a score of apartments devoted to the prosecution of physiological teaching and research. Great expectations of the foundation of a School of Physiology in our University were thereby naturally raised. Certainly no place was ever better adapted for such a purpose, and the possibilities of doing good work are practically unlimited. Up to the present any hopes in this direction have not been realised. No such invitation as that issued by Professor Greenfield comes from the physiological side ; nor, apart from the mere routine of teaching, is there much sign of active life. Surely it is time to look for some indication of vitality in this department. Can circumstances more favourable for earnest and valuable work be conceived ? Here we have accommodation and appliances unrivalled in completeness, seventeen hundred students and many graduates to supply workers, and a professor in the prime of life, luxuriously paid and provided for, to act as organiser. And as yet—*vox et præterea nihil.* Have the public not a right to ask, Why all this money spent on magnificent laboratories ; when is the work to begin ; is all this accommodation needed for teaching purposes only ? What wonder if they hold their hand in spite of the pressing appeals of Chancellor and Lord Provosts ?

The General Council of the University, at their meeting on Friday, awoke to the fact that a reformer had come in. A recent acquisition in the form of an M.B. had been advertised for some days previously as the propounder of certain propositions in the form of motions, which if carried into effect would have turned medical teaching in Scotland to chaos, and converted the schools into working models of Pandemonium. All the motions were withdrawn save one, which proposed an extension of the course to five years, and 22 as the minimum age for graduation. After half an hour's discourse by this gentleman, read from a manuscript, the Vice-Chancellor suggested that the *reading* of speeches in the Council was an innovation and a dangerous precedent, whereupon this "Cleanser of Augean Stables" sat down. Unluckily for the beneficent efforts of the new Hercules he was followed by Dr. Heron Watson whose annihilation was polite, thorough and satisfactory. We might suggest that during the coming year he might devote some of the hours snatched from the calls and cares of busy practice to the maturation of his ideas, and the committal of his expression of them to memory, and let him come again "with his hair just grizzled," and he will doubtless have a warmer welcome and a better hearing.

The inaugural address for the present session at the Mater Misericordiæ Hospital, Dublin, was delivered

on Friday, October 31, the lecturer being Dr. M. A. Boyd, one of the physicians to the hospital. His Eminence Cardinal MacCabe presided. The lecturer dealt chiefly with the subject of the development of therapeutical science. "What would be the surprise," he asked, "of a practitioner of the old Therapeutic School if he could rise from his tomb and see his most cherished remedies, his Lares and Penates, shattered and broken, the Iconoclasts rushing in on all sides and from every country, to share in the work of demolition? How much would it surprise him if he saw a victim to angina pectoris of the present day, with staring eyeballs and torture-wrung pallid face, getting the blood brought from the choked vessels of his heart, and his face made to suffuse with a crimson glow, after inhaling a few drops of nitrite of amyl, his pain ceasing, as the remedy began to exercise its physiological action? Or the garrotted asthmatic, relieved almost magically by equally potent inhalations of iodide of ethyl, or the victim of acute rheumatism—that *bête-noir* of the poorly clad and badly-housed dwellers in this humid clime—quickly relieved by the many compounds of salicylic acid and of salicine? Still more would it surprise him to see a joint or the abdominal cavity laid open fearlessly by the surgeon of to-day, under an antiseptic atmosphere, or a chest tapped by aspiration, and fluid that pressed injuriously upon the lungs or heart withdrawn, with none of the untoward results of a bygone surgical time, when such operations would be looked on as certain to lead to a fatal result."

At the Meath Hospital and County Dublin Infirmary, Professor Rawdon Macnamara was the protagonist of the occasion on Monday morning, the 3rd instant. The chair was taken by the Right Hon. William Meagher, M.P., Lord Mayor of Dublin, who was supported by the President and Vice-President of the Royal College of Surgeons in Ireland. The address was sound and practical, and met with a hearty reception at the hands of the students who were present in large numbers. *The* feature of the morning's proceedings was, however, a highly characteristic speech from the Rev. Dr. Haughton, S.F.T.C.D., who *inter alia* said he took exception to the professor's eulogium on "Truth," for he thought that a proverbially dull world would be much duller were it not for an existence of a good deal of Fiction as well as Truth. In the evening the annual dinner of Old Meath Hospital men took place at the Shelbourne Hotel, the chair being occupied by Dr. William Moore, Ex-President of the King and Queen's College of Physicians.

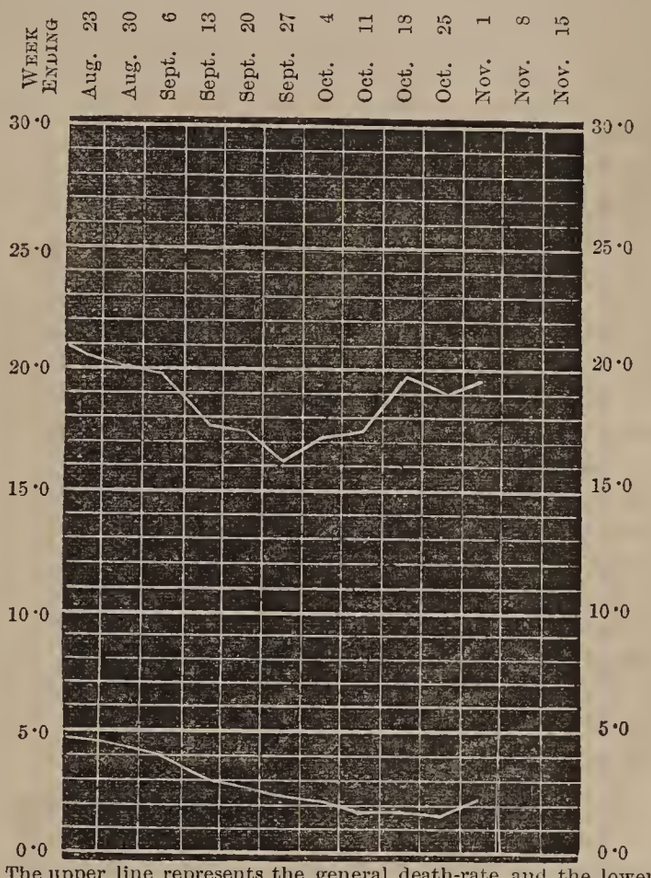
The winter session, writes our Belfast correspondent, commenced here upon Tuesday last, when the professors in the various class rooms opened their courses of lectures at the Queen's College. Professor Redfern, whose opening lecture has always attracted numbers of his old pupils from year to year, and taxed to the utmost the accommodation in his commodious lecture room, was listened to as usual with the deepest interest and keenest appreciation. The session at the Belfast Royal Hospital was inaugurated by an opening lecture delivered by Professor Cuming, President of the British Medical Association, who, after some words of advice to the men of various years as to the best way of spending their time in hospital work, plunged into the serious business of the session. Inaugural addresses in Ireland have never been the rule at the hospitals, not because the Irish student of medicine can in any way be said to be lacking in appreciation of oratory, but perhaps on account of the hospitals often not being complete schools of medicine in themselves, as is always the case in the metropolis. Owing to the regulations of the late Queen's University, whose examinations in arts and medicine always occupied a considerable portion of the month of October, many of the professors had to be in Dublin at that time, and the winter session accordingly has always commenced in November. One result of this arrangement has been, that just about the time the student is settling seriously down to work, the Christmas recess comes, and the majority find themselves really beginning the session about the end of the first week in January. The North of Ireland student is one of the hardest-working and most industrious of his class, and were it not for this fact, the lateness of the session would seriously tell against his progress, and would ultimately injure the prosperity of the school. Another serious drawback attending the *late* system, and one which tells particularly against the teachers, is the rapidity with which the summer session follows upon the heels of the winter's hard work, leaving the hospital staff no opportunity for relaxation. Too often the physicians and surgeons begin the spring course fagged out with the six months' clinical work in the wards. Doubtless, in a short time the new Royal University will enforce such regulations regarding certificates to be accepted by it, as will force the colleges and hospitals to abolish this relic of a bygone age.

The entries at the Belfast Medical School this winter will be scanned with unusual interest by the teaching staff and past students (of the late University) who have been closely watching the effects of the recent legislation which has so seriously told upon the prospects of the Queen's College and Belfast Royal Hospital. For the few years preceding the annihilation of the Queen's University, the average number of students attending classes in the Medical Department of the Belfast Queen's College amounted to almost 350. The Professor of Anatomy and Physiology lectured to a class containing nearly 300 men; but immediately after the new university sprang into existence, demanding a longer medical course and insisting upon a preliminary art's examination of considerable difficulty, the numbers attending medical classes fell very considerably. The late University fully met the wants of the North of Ireland and enabled the sons of its not over wealthy farmers and gentlemen to obtain a cheap degree in medicine within the short period of three and a half or four years. The Royal University, with its longer, and, of course, proportionally more expensive curriculum, is out of the reach of some who would have availed themselves of the M.D. of its predecessor. There is also, unquestionably, a deep and wide felt feeling of insecurity and unrest in this

part of the empire about the question of university education which of necessity has arisen upon the destruction of a comparatively young and vigorous institution. A considerable time must elapse before even the thinking minds in the community can realise that the new University may not soon be set aside in some new experimentation or tinkering with what must be acknowledged to be a very difficult question.

It is with these difficulties that the Belfast Medical School has been contending for the past three years. with what success remains to be seen. It will require at least another year before the immediate effects of the new university change can be fairly judged of. Last winter the first and second year classes were very materially thinned ; this year it will be the third year classes, and after 1885 the full operations of the Royal University will be evident. During the interval the standard of education has been decidedly improving, and it is evident that the facilities for the training of students in every department of medical science and practice can hardly be said to be inferior to those of any school in the kingdom. The hospital arrangements are most complete and extensive, as we showed in a tabular statement some time since. In spite, however, of the most complete teaching arrangements, and notwithstanding the great strides that the school can make in giving the student the best opportunities for pursuing his clinical studies, it must expect to find its growth, to some extent, crippled in the future. In our columns we have of late pointed out the great change in the relative popularity of the provincial and metropolitan schools of medicine, and we have pointed out that the increasing numbers of men who turn their faces to the provinces do so clearly not on account of the clinical teaching being better there, but because of the greater facilities for obtaining a degree in medicine. If the London schools are to preserve their supremacy it is only by meeting the want, and placing within the reach of the student a reasonably cheap and respectable degree instead of the rather expensive diplomas which, after all, do not confer upon him the coveted title of "Doctor." It is evident that no school can flourish long with its teaching at low water mark, but there are other factors in the growth of a medical school besides its good teaching ; and the large school of medicine in Belfast must content itself with the reflection that if its members shall not continue to increase with their former speed, its efficiency and thoroughness have never stood upon so high a platform. We regret that it will be impossible to form an estimate until next week of the numbers attending the medical classes this winter, owing to the lateness of the session, but they are expected to show a substantial increase upon those of last year.

During the past week 1,503 deaths were registered in London, giving a slightly higher death-rate than that of the previous week. But the death-rate of the present quarter so far, compares very favourably with that of its immediate predecessors. There were 21 deaths from small-pox in London, as defined for registration purposes, and in addition 16 deaths of London residents in Metropolitan Asylum Hospitals outside the above area, thus giving the large total of 37 cases. Measles and diphtheria claimed 22 victims a-piece, whilst scarlet fever is credited with a total of 28. Whooping cough was the cause of death in 13 instances, all children under five years of age, seven of them being under one year. The mortality from diseases of the respiratory system rose from 274 to 348, a high figure, but still below the corrected average. Nine infants under one year died from suffocation, and



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past eleven weeks.

strange though it may appear, the deaths under this head are slightly below the average. Only three deaths occurred from small-pox in the remaining 27 great towns of England. Glasgow last week had the very high zymotic death-rate of 5·7 ; this is accounted for when we learn that there were 17 deaths from scarlet fever, 12 from diphtheria and 8 from measles. The sanitary authorities in that quarter must have their work cut out for them.

The discussion on the pollution of the Seine, writes our Paris correspondent, was continued on Tuesday week, at the Academy of Medicine. The assembly voted the conclusion of Professor Brouardel's report, stating that it would be desirable to prevent the refuse of manufactories from being thrown into the river, but that time would be required to effect such a sweeping reform, while, on the contrary, immediate measures ought to be taken to prevent fæcal matter from mixing with a stream, the water of which is so largely used for drinking purposes. If the existing habits are at all to be modified in this latter respect, it will be necessary to carry matters with a very high hand. Experience has taught us that, as a rule, when people have dirt upon their premises, their sole object is to get rid of it, at any price and in any manner, without paying

the slightest regard to the convenience or health of their neighbours. With respect to the influence of water contaminated with fæcal matter upon the dissemination of cholera, Professor Le Fort remarked, that the inhabitants of Versailles have constantly been preserved from any visitation of the epidemic, although Versailles is supplied with water from the "machine de Marly." This costly mechanical structure was erected under Louis XIV., to supply the new city with water drawn from a then pure and unpolluted part of the Seine. But things have changed since that distant period, and the inhabitants of Versailles certainly now drink water polluted by the refuse of Paris. Their preservation from cholera is attributed by Professor Le Fort to the fact that they have no wells, these being, he says, the chief cause of the propagation and dissemination of the disease.

On the proposition of Professor Ball, the Paris Academy of Medicine has voted an address expressing the deep regret of the French Medical body at the destruction by fire of the palace of Christiansborg. The address was directed to Professor Panum, the President of the Copenhagen International Congress, it being contrary to etiquette for academies and scientific bodies to enter into direct communication with crowned heads. The Academy of Medicine has received with deep regret the announcements of the death of Dr. Rufz de Laviser, the author of several well-known works on the diseases of tropical countries; and of the severe illness of Dr. Fauvel, the celebrated hygienist, who is affected with inflammation of both lungs.

The question of the lady medical students at Paris has entered into a new stage. The right of taking a part in the competitive examination for the post of house surgeon and physician (interne) to the Paris hospitals had hitherto been denied to the fair sex; it is now asserted that M. Poubelle, the Préfet de la Seine, with whom the matter rests, will grant the permission. The force of logic is irresistible, and if ladies are allowed to become house surgeons, they will, in process of time, claim to be hospital physicians, and even raise their ambition higher; and some of these days, a Professor's Chair at some of the French Medical Faculties may be held by a lady, as in former times a prominent place was filled by the celebrated Vittoria Colonna, in an Italian University. Whether the medical profession will gain or lose by this infusion of the female element, is a question which the test of experience alone can solve.

Dr. Julius Althaus writes to us as follows: A committee has been formed in Germany from amongst the friends and pupils of the late Prof. Cohnheim, whose premature death a few months ago has been most deeply and widely lamented throughout the medical world, for the purpose of erecting a suitable monument over his grave. To the profession generally, Cohnheim was only known for his great scientific attainments, and uncommon originality of research, but to a large circle of friends and pupils, who came to study under him from all parts of the world, he had greatly endeared himself by the charm of his manners, and the large and warm-hearted sympathy which he freely gave to all those who were, like him, striving to cultivate the fascinating field of experimental pathology. I have been requested by Prof. Wagner, of Leipzig, on the part of the committee, to acquaint, through the medium of your columns, Cohnheim's friends and old pupils in England and the United States with the object of the committee; and I shall be happy to receive and transmit any contributions towards the fund which is now being raised, to the treasurer, Prof. His, of Leipzig. The list will be closed at the end of the year, after which a statement will be forwarded to all subscribers.

There are a few papers of medical interest in the November magazines, but none which it absolutely behoves one to read. The most important is Mr. Sydney Buxton's article on "Over-pressure," in the *Nineteenth Century*. As might have been anticipated, Mr. Buxton disagrees with most of Dr. Crichton Browne's conclusions, and is very sceptical as to his premisses. He thinks that doctors see only one side of the question, and that the worst; and he maintains that the opinions of the faculty have never yet been given on really medical and scientific grounds, and that, therefore, they are no better than the opinion of a layman who is practically conversant with the subject of education. Mr. Buxton has evidently not taken the trouble to read the series of letters from hospital physicians which we published a few weeks ago. The opinions there given were, so far as they went, distinctly medical and scientific, and were such as no layman could possibly have the means of forming. As we have before pointed out, it is absurd to argue that a doctor has no right to an opinion on the subject unless he is familiar with the working of the Code. The doctor merely gives evidence of facts which have come under observation, and the only logical way of meeting such stubborn arguments, is to prove that they do not exist. It is no answer to contend that the system is such that the facts cannot possibly exist, though that is the only answer that has yet been vouchsafed to the medical allegations. Dealing with the suggestions of the doctors that a systematic medical inspection of schools and scholars should be introduced and that a register of each child's physical condition should be kept, Mr. Buxton declares that they would be unworkable. "Elementary schools were intended simply for the education of children during a few hours of the day, and were not intended to supersede all parental responsibility, nor yet to be the happy hunting ground of doctors and scientific observers." The question, however, is surely not what the schools were intended but what they ought to be. The rest of Mr. Buxton's paper is devoted to a consideration of the working of the Code, but nowhere throughout his remarks does he allude to the modest but important suggestion made by medical critics, viz.: that the whole subject should be submitted to the consideration of a commission of enquiry. The same number of the *Nineteenth Century* also contains a chatty article on Karlsbad, by Mr. Fraser Rae, which is hardly up to the usual standard of papers in this magazine.

In the *Fortnightly Review* there is an article on Moderation and Total Abstinence, by Mr. Sutton Sharpe, whose account of the history of the famous "Medical Declaration respecting Alcohol" will probably produce some rejoinders. The whole article is written in the worst of taste, and will injure rather than benefit the cause of moderation, which it favours. *Blackwood*, in a rather common-place article on Outlying professions, has some remarks, scarcely worth reading, on the prospects of the young doctor in this country, in the colonies, and upon the sea. Dr. C. M. Campbell contributes to the *National Review* a telling indictment of our system of Poor Law Medical Relief of the rural poor. He suggests by way of reform that (1) the medical officer should be obliged to devote his whole time to his public duties, (2) that his salary should be fixed on a uniform system proportioned to the mileage of the district and the average number of cases treated, and (3) that all medicines should be supplied to and not by the medical officer, and should be of proved purity. He further suggests that every district should be provided with a cottage hospital. For the arguments by which these innovations are supported, we must refer our readers to the article itself, which we have been no less surprised than gratified to find in a journal of the conservative proclivities of the *National Review*.

The two most important educational journals both express themselves strongly this month as to the necessity for a systematic enquiry into the "Over-pressure" question. The *Journal of Education* says that, "to establish a *primâ facie* case of over-pressure, the method of agreements adopted by Dr. Crichton Browne was sufficient, and this was all that a private individual could hope to do. To determine the amount of over-pressure, resort must be had to the method of differences, and for this we must look to a commission of experts, partly medical and partly educational, and we have little doubt that the pressure of public opinion will compel the Government to appoint such a commission." The *Educational Times* believes that "no final verdict is yet possible, for no reliable evidence has yet been produced either in support of it or in contradiction to it. Accurate investigation is therefore required, and considering the extent and seriousness of the consequences involved, an open, thorough, impartial, and adequate enquiry should be commenced at once. Now that Parliament is assembled, it is to be hoped an hour will be found to give authority to a regularly constituted Commission of Enquiry."

We stated some time ago that there was a likelihood that the pathological laboratory organised in connection with the Health Exhibition would be established as a permanency, and endowed out of the surplus of the exhibition. We are glad to see that the Executive Committee have been bold and far-seeing enough to propose this mode of getting rid of some part of the moneys left on their hands. In their final report, signed by the Duke of Buckingham, they recognise that "the maintenance of the laboratories would ensure a means of sanitary research and teaching for the future which England has not had in the past. In these laboratories, studies could be carried on, and teaching could be given of a kind similar to that which is afforded by various foreign institutions which have been established in the interests of the public health. These studies have a direct bearing on the solution of health problems, which not only affect the well-being of communities, but exercise an important influence on agricultural and commercial interests." This proposal awaits the approval of the Prince of Wales. The interest His Royal Highness has recently shown in the kindred work of the Marine Biological Association should augur well for his decision in the present matter. If the laboratory is allowed to go on, it will be another singular instance of our funny roundabout English way of collecting money for objects which people do not sufficiently care about to endow directly. If the visitors to the exhibition had been told that a farthing out of each of their entrance fees would go to keep up a scientific workshop, most of them probably would have been inclined to ask to be excused the contribution.

Under the head of the celloidin process, we casually mentioned in a recent number the fact that pure anilin is capable of clearing up sections, and that it is not a solvent of celloidin, and that in consequence, oil of bergamot may be dispensed with in the celloidin process. As oil of bergamot has a very bleaching action on the colours of sections, and as pure anilin has no more tendency to remove the staining than oil of cloves, pure anilin has a distinct advantage over bergamot. And not only in this respect, but also in price, for commercially pure anilin can be purchased retail for sixpence an ounce, and this answers quite as well as the chemically pure, which is five shillings an ounce. In using pure anilin as a clearing agent, one point requires particular notice, and this is that the section must be very carefully dried before it is mounted, or else the balsam will slowly assume a brownish hue, and when this change reaches the section, the colour becomes slowly discharged. Since the discovery of the clearing property of anilin made a few weeks ago by Dr. Hebb, of the Westminster Hospital, trial has been made of its action on various colouring matters, and it is found that pure anilin heightens the effect of logwood staining, and seems to have little or no tendency to absorb the anilins. Now, assuming the reader's knowledge of the fact that pure anilin is now much used as a mordant in the anilin stains for bacilli, we need scarcely point out that it was but a short step to the conclusion that this method might serve to bring out micro-organisms with more distinctness and with less trouble. This is found to be the case.

The *New York Medical Record* for October 11th, states that during October the application of the New Civil Service Regulations to medical matters comes into force, as vacancies in the Hudson River Hospital for the Insane will be filled by competitive examination, all graduates of reputable medical colleges being eligible. In future the medical officers of hospitals, the superintendents of asylums, vaccination

and sanitary inspectors, and all others in the health department who require medical education and experience will only be able to obtain their appointments in this way. Matrons, nurses, and hospital servants in general will have to undergo a similar ordeal. The examinations are to be conducted by one of the three examining boards, appointed by the mayor and composed of three citizens. Besides requiring evidence of physical and moral qualifications, it will include the following points, with the relative weight given to each, viz.: medical knowledge, 50; experience, 20; efficiency and accuracy in work, 15; character for maintaining discipline, 15. By a curious regulation candidates are not obliged to produce a diploma, a certificate from some reputable institution of having studied for two years, or one from a professional man of having studied for three years sufficing. Here, the *Record* observes, is a possible opening for the "politicians" to get their friends in who have not been regularly qualified. However, our contemporary is of opinion that if the measure be carried out thoroughly, it will no doubt assist to raise the character of the profession. When we observe how the examiners are to be appointed, this seems a somewhat sanguine expectation.

THE RABBETH MEMORIAL.

We are glad to see that every effort is being made to commemorate in a really worthy manner the act by which the late Dr. Rabbeth sacrificed his life. The letter from Dr. Curnow, which we publish in another column, will go far to show that the movement has been taken up in no outburst of hysterical enthusiasm, but with a grave determination to give a tangible expression to that mixture of deep admiration and deeper regret which the profession and the public have felt for the heroic impulse which has cost us the life of one of the most promising of our younger members. If Emerson's definition of the hero is a just one, there are surely none who have a better claim to the title than those dead and living brethren of ours who, dominated by a rare and noble impulse, have cast behind them all considerations of self, and have risked their life to save that of their patients. No one can possibly grudge them the universal thrill of emotion with which their act is greeted. We can indeed enter into the feelings of those who, like Mr. Chatto (see his letter in another column) are anxious that the example of Dr. Rabbeth should not be made a rule of professional conduct, but they need have no fear that Dr. Rabbeth will find many imitators, with whatever enthusiasm and admiration we commemorate the manner of his death. And we are sure that it would be as unwise as it would be ungenerous for anyone to seriously attempt to baulk that admiration of its due expression. With whatever laurels we cover Dr. Rabbeth's grave, no one need feel that he has failed in professional duty, if he refuses to pit his own life against that of his patient. The public will certainly not blame him, composed as it largely is of men like that one who recently tried to punish his medical advisers, because they asked him to do for his own child the very thing that Dr. Rabbeth freely did for the child of a stranger. But to honour an ideal is not necessarily to enforce it. The tendency amongst us now-a-days is to unduly prize intellect at the expense of the far rarer gift of character. The intention of those who are organising the Rabbeth memorial, is, if we read it aright, quite as much to commemorate a life of generous and noble ideals, as to perpetuate the memory of a death which was but of a piece with it. It would be to the everlasting dishonour of the profession if, by showing luke-warmness in worthily commemorating Dr. Rabbeth's act, they should make it evident that they had ceased to reverence that high ideal of conduct which is so much the more worthy of reverence, because so many of us must feel that we should ourselves be unable to rise to it. The profession that no longer cherishes the memory of a hero, confesses thereby the degradation of its own ideals.

THE MEDICAL SUPERVISION OF ELEMENTARY SCHOOLS.

The statement lately published by the Chairman of the London School Board is not calculated to lessen the attention which is being so generally and so deservedly directed to the alleged physical results of our compulsory educational system. It is some source of pride that the metropolis provides an education for more than half a million of its juvenile population; and if Board Schools are the institutions in which this most desirable end can best be attained, it is satisfactory to know that three-fifths of that number of children receive instruction under this system, with an average accommodation of about 900 children to each school, although the attendance on any given day does not exceed eighty per cent. of all the names on the register. Even a rate of eightpence in the pound, with some probability of its yet further increase in the not distant future, will be grudged by few if it can be shown that education in its truly valuable sense is being imparted to those who may be trained into orderly and capable citizens, or allowed to degenerate into a lawless and indolent *canaille*, according to the treatment of their earlier years. Educationalists, however, can never afford to forget that children are something more than machines which have merely to be got into working order. The character, the social position and requirements, the inherent capacity of the individual are all important factors in the problem, and they cannot be fixed or regulated by Act of Parliament. The imposition of the specific requirements of the Educational Code upon the untutored minds of some 300,000 children drawn from classes in the earlier stages of intellectual evolution, and too often hampered by the worst possible surroundings and actual bodily starvation, must act, to say the least, unequally in very many cases; and in how many it will act disastrously can be imagined only when we realise that what is now, sometimes inconveniently, called "over-pressure" is simply an evident inability to withstand strain, and that the strain in any given case will be the outcome of even moderate force brought to bear upon a weak material, just as certainly as when excessive force is imposed on that of average

strength. Take into consideration all the elementary schools in the country, instead of those in London only, and it is plain that the total amount of immoderate mental wear thus entailed must be very considerable indeed.

But there is another point of view from which this question may be regarded, and it is one which helps us to estimate the antecedent probability of mischievous results. The brain of the school child and the peculiar difficulties with which it has to struggle are not the exclusive property of the School Board; and evidence obtained from other quarters may be of value in determining the likelihood of similar results following similar causes with at least equal frequency in Board Schools. In the large public schools, and in the best of our private schools, for instance, it must be remembered that, while the educational standard is high, the intellectual capability of the educated material is also above the average. The less capable candidates for admission have been strained out by some process of preliminary examination, which is usually sufficiently severe to make the effects of "over-pressure" felt in the first instance in the preparatory schools, and to relegate the obvious dunce to an educational environment of less exacting character. And yet, even in great and well managed schools, such as those now under consideration, over-pressure claims its victims. In spite of their richer heritage of intellectual endowments, in spite of the care lavished on their well-being from earliest infancy, and all the advantages of good food, warm clothing, and healthy surroundings, boys and girls fall out in the course of the struggle more often than people know or are willing to believe, and would break down oftener still but for the care with which the earlier signs of failure are attended to. For even from its earliest stage this part of the process which secures the survival of the fittest has not been altogether unwatched or unguarded. In the walks of life from which such children are drawn medical attention is not the last thing thought of, and, though too often delayed, the recognition of physical and mental inaptitude is more early and much more generally provided for than can be the case with those whose parents necessarily lack much of the appreciation of and sympathy with its earlier symptoms, and for whom no regular medical supervision is officially provided while at school. Having regard, then, to the inherent probability of its development under those conditions, as well as to the considerable and rapidly accumulating evidence as to its actual widespread existence, it is not satisfactory to find that all Mr. Buxton has to say on the subject of over-pressure is that the Board, after careful enquiry, "had failed to find any proof of mischief, except of occasional want of judgment of teachers."

Whether the over-pressure which, in one shape or another is practically admitted, be directly traceable to the too rigid requirements of the Code, or to the misdirected ambition of school managers and masters, or whether it is "the over-pressure of poverty, drunkenness, and starvation," its effects are visible in the physical deterioration of the children who suffer from it. It is allowed that the work demanded of the teachers is so arduous that all but those of naturally strong constitution break down under its strain; and it is not fair to the children, to the schools, or to the teachers themselves to lay upon the latter the onus of at once preventing, recognising, and curing such cases of over-pressure as may arise amongst their pupils. Teachers should be quick to appreciate the earlier signs of failing health of mind and of body; but if in doubtful cases—and, in their beginning, all such cases must be doubtful to the mind destitute of special medical training—appeal has to be made to the teachers' own "judgment"—naturally biassed in favour of "results"—the chances are that errors, when made, will seldom be on the safe side. It would be different if the teacher could apply for guidance to a recognised medical authority. Such a plan would relieve the teacher of a harassing responsibility; it would guarantee to the scholar a safeguard something better than the hazardous guess of an amateur's diagnosis, and in the avoidance of present misery and the maintenance of future health, it would secure a return far beyond its cost. In short, it is only by the adoption of a simple and effective system of medical supervision that the operation of a compulsory educational system can be safeguarded against its otherwise inherent dangers. This view has already taken practical shape in the form of certain resolutions recently adopted at the late meeting of the German Public Health Union. They state decisively that school hygiene can only be properly taught and studied by means of discussions conducted by medical men who have practical experience of schools, and recommend that all the hygienic rules required in educational establishments shall be submitted to medical correction, and that no alteration of them shall be attempted without medical sanction. With respect to the administration of hygienic rules, they provide that all teachers should receive special instruction, and should at all times have the assistance of a properly qualified medical officer.

Although the evils of brain-driving are now most prominently before the public and have just been alluded to in this connection, other risks attend the crowding together of large numbers of young people. To the question, How may infectious diseases be most easily spread in civilised communities? the answer, By means of day schools, would be the most comprehensive of any that could be given. And the conditions present in the case of most elementary schools,—the herding together for hours at a time of numerous children, many of them coming from squalid, insanitary, over-crowded homes situated in disease-haunted districts, unused to habits of cleanliness, and insufficiently nourished—are peculiarly adapted to the realisation of such results. As the first step towards lowering the disease and death-rates in such neighbourhoods, and one whereby the temporary closure of the school with all its attendant loss and drawbacks might often be avoided, and as a means of early getting at the starting point of a potential epidemic in the home or homes of the children first attacked, the prompt recognition of cases of infectious illness is a matter of the first importance. Again, less fatal than the exanthemata, but even more embarrassing because so comparatively frequent and so commonly neglected, are those contagious diseases of the skin, for instance, which are to be found so often and which spread so

easily in schools of this class. What, for example, are the statistics of ringworm as it occurs in the Board Schools of London; and, if we admit the existence of this malady in any given case to be in itself an indication of ill-health, what further conclusion does its frequency imply? How many of the 330,000 children now on the London register are "dullards," simply because they are sickening with some form of specific illness, or poisoned by insanitary home surroundings, starved for lack of both food and air, or unwritten martyrs to imperfections of sight or of hearing? How many of them at the present moment are not merely in danger as regards their own bodily health, but centres of dangerous infection to all the homes represented by their fellow scholars?

To such questions—on which even the Inspectors have unanimously agreed to differ—it is utterly unreasonable to demand from the "judgment of teachers" an answer which must be prompt and reliable in order to be of value, as each case presents itself for consideration. A medical officer appointed to, say, the four or five thousand children attending the schools within his district, would serve as the authority to which the teacher could, and would be expected to, appeal from his or her own suspicions or belief. By such means individual cases of over-pressure could be stopped in time, and the cause of trouble—the point where the shoe pinched—enquired into and set right; epidemics would be oftener stamped out, not from the schools only, but in the homes from which the schools are filled, and the average level of general health, and with it the permanent value of the educational work accomplished, would be proportionately raised. The medical officer should also have the right of visiting his schools when and at such hours as he might think fit from time to time. The post would not be an arduous one, and would demand little more than the time required for the diagnosis of the cases submitted for opinion; the details of treatment devolving on the District Medical Officer, in conjunction with the Medical Officer of Health in cases of infectious disease. Under these circumstances, the salary attached to such a post might be moderate without being unremunerative. It is only too certain that any proposed addition to the expenses of School Board administration would encounter opposition. In this instance the cost need not be great, and would be no measure of the advantages secured. It has been well said that education means to the children of the poor more than it does to those of the rich. That is all the more reason that care should be exercised in the process. Amidst all the agitation on the subject two facts stand out very plainly—the country is committed to a system of compulsory education, and the country will have to pay for it. If future generations are to reap an adequate return, we must use a watchful diligence that part of the price be not paid in such a deterioration of physical and mental vitality as would go far to neutralise the blessings of an otherwise priceless boon.

Iodoform Collodion.—An iodoform collodion is well spoken of for wounds in an exposed situation. It consists of iodoform 10 parts, and collodion 90 parts. To be applied with a camel's hair pencil, the edges of the wound being held together until it dries.

ESSAYS ON MEDICAL CLASSICS.

I.—INTRODUCTORY ARTICLE.

Among the immense number of books, manuals, monographs and periodicals that are daily produced for the enlightenment of medical students and practitioners, the standard works of bygone times are apt, unfortunately, to be overlooked and forgotten. And yet if it should be their fate to become totally neglected, we should suffer a serious loss, for many of them are worthy to live and flourish for ages, some few perhaps for as long as medical science shall be studied, for they have that within them which keeps them alive and fresh, and capable of producing impressions which no quantity of common literature can possibly excite. What it is that constitutes this superiority it is impossible to define, or to do more than indicate. It may sound contradictory to say that most of the additions that are constantly being made to the sum of our knowledge do not constitute a real increase of knowledge, yet in one sense this is true, for we may be "ever learning and never able to come to a knowledge of the truth." Whilst we hunger after facts and fractions of facts, and in a measure satisfy our hunger, we may not be acquiring therewith a corresponding degree of insight to realise their significance, or of comprehension to arrange and understand them. And even while we are getting, we may be forgetting equally. Bacon said that medical science made no progress whatever, but that all movement was in a circle, returning again and again to the starting point. This is rather an unjust, though perhaps not altogether unreasonable, criticism; at any rate it is not likely to obtain acceptance nowadays. But if we investigate the matter closely, we shall find that onward steps in medicine have not been always made by means of accidental discoveries, whether small or great, but by the occasional appearance of a genius who has devoted the power he possessed to the investigation and more perfect comprehension of what was previously only vague and wrongly understood, and whose merit it has been not so much to gain for us increase of territory, as to throw increase of light upon what was already in our possession. The writings of such men must ever remain of value as records of what they have done, and as lights and guides for the future. It is this species of writing that retains its freshness in spite of the lapse of years, and deserves to live and to be repeatedly studied. It constitutes what De Quincey called the "literature of power," in contrast to the mere "literature of knowledge." Its office is to inspire, animate and suggest ideas; not merely to fill the mind, but to prepare it for the reception and retention of experience; to put us in the way to observe and attain a broader view and better apprehension of the things we see, and to encourage a habit of reflection, which is essential, though it should not be predominant, in medical pursuits; and lastly, to serve as an example of the right method to pursue in our enquiries. We do not for a moment wish to imply that all old writing is

of equal value, or that all new writings are equally ephemeral. In former times, undoubtedly, there was much ephemeral literature also, which has long ago fallen out of sight and memory; and there are we hope books a-making nowadays which will deserve to go down to posterity side by side with the classics that have come down to us. Our present business is, however, with the latter.

The old authors are sometimes taunted with being "metaphysical," but no system of philosophy can exclude that which lies beyond the limits of the senses; and inasmuch as it is vain to regard medicine as an exact or "positive" science, and as it was, is and must be inextricably involved in a large proportion of mystery, it must be admitted that a reference to metaphysics need not be out of place, and it may even be that the older form may be better suited to the humour of the subject than the new. Further, the old language is thought to be vague and unmeaning: on the contrary, it is for its purpose the best possible. For the materialistic terms of the exact sciences are too often inapplicable and misleading, a metaphorical mode of relation often approaching nearest to the truth. We should simply be acknowledging our own dulness if we assumed that the older authors intended their phrases and comparisons to be taken as literally true, or as more than tentative and provisionally useful. Although we depend more than formerly on special instruction and acquisition in separate departments, yet the end served by the higher class of literature (though of course books are not meant to replace, but only to assist experience) can never become antiquated, and a familiarity with it aids us in the appreciation of what is good amongst the new. Several circumstances tend to hinder the completeness of medical knowledge at the present time: there is the universal taste for "minute philosophy" in all branches of science, partly aided by the number of departments into which practice has been broken up, and each of which may be conducted by routine on a certain fashionable pattern; then there is the excessive attention paid to the subsidiary sciences—physiology, chemistry, morbid anatomy, &c.—or rather to the theories arising from them; which, instead of being merely subordinate to the main ends of medicine, are apt to be regarded as ends in themselves, so much so that physiology has almost become divorced from medicine, and pathology bids fair to be the same. All these errors were seen and avoided by the great men of the past, who kept their faces turned steadily to the one great end for which the profession exists, and thereby attained a depth of knowledge which is unchanged by passing customs and fashions. For these reasons we think that the greatest works which have been created should be preserved and kept out of obscurity, and that they should still be used to discipline and strengthen the mind. Whether read seriously or out of curiosity they are interesting in affording a comparison between the present and the past. We propose in future articles to briefly examine a few of the works which have made the greatest mark in our medical literature, and which, in spite of the number and multiplicity of their successors, have stood the tests both of time and of comparison.

N. H.

REVIEWS AND NOTICES OF BOOKS.

Handbuch für Madeira; von Professor Dr. Paul Langerhaus. Berlin: August Hirschwald, 1884. Sm. 8vo., pp. 206.—Whether there is anything in the climate of Madeira which acts as a direct incentive to the making of books we cannot say, but the fact remains that few, if any, places have been so much written upon and be-handbooked. Few people, we fear, have read that earliest and quaintest of all the monographs of the island—Fructuoso's *Sandades da terra*, from which so many later writers have borrowed their information, but almost every visitor consults White's "Madeira," which, in spite of the date of the publication, still remains the best handbook in the English language. But in German, as far as we know, only two general accounts of the island are in circulation, those of Mittermaier and Dr. Schultze, both of which are somewhat out of date, and as a considerable number of *poitrinaires* of that nationality annually seek in Madeira a more genial climate than their own, the present work will doubtless be welcome to many. Many of the chapters, such as those on the history, geography, zoology, and like subjects, are necessarily more or less compilations from the works of former authors, but in his account of life in Funchal and directions to invalids, Dr. Langerhaus has allowed himself more scope, and some of his remarks should be laid to heart by those who in the presence of the constant summer of Madeira are too apt to forget that they are there for the sole purpose of getting well. In cautious mountain rides, where the patient seeks out the very variations in temperature which he came to the island to avoid; excessive exercise, and above all "that wretched lawn-tennis;" all these are justly condemned, but are nevertheless as much the rule as the exception, and a strong argument in favour of the advice that young people should not come out alone. In two chapters on the condition of the peasants and the mode of government, Dr. Langerhaus has striven to evoke an interest in subjects which are for the most part entirely ignored by the visitor. A knowledge of the value of *benefeitorias* and the exact working of the *metayer* system is perhaps not an absolute necessity for the healing of a diseased lung, but we venture to think that its acquirement is preferable to the *far niente* so characteristic of the climate which is not unfrequently accompanied by a state of depression to the last degree prejudicial to an invalid. The chapter on the meteorology of Funchal is carefully written and full of interest. It is most curious to note the variableness of the rainfall. Thus in 1867, no less than 50 inches were registered, while in the following year but 13 inches fell. The mean of the last ten years was found to be rather over 25 inches, but preceding observers have given the average rainfall as somewhat higher. The number of days on which rain falls averages between 70 and 80, but as few as 39 were registered in 1882. The mean, therefore, is greater than at Cairo or Algiers, but less than that of Pau or Palermo. But it should be borne in mind that even on the most rainy days there are almost always some hours when it is possible to go out, the rain having more of the character of violent April showers than of our continuous November drizzles. It is difficult to account for the loss of popularity from which Madeira has suffered and even now seems to be but slowly recovering. An unvarying temperature, most beautiful scenery, first rate hotels, and good English society combine to make it one of the best, if not the best of all the known health resorts. Almost everyone who has written on it has sung its praises, and Dr. Langerhaus is no exception. But on one point he has done it a most cruel injustice. "The climate," he says, "is unquestionably windy." No more misleading assertion could possibly have been made, unless it is intended to refer to the island as a whole. The light land and sea-breezes that daily occur would not be characterised as wind at all by an Englishman, while from all northern winds Funchal is completely sheltered by the high mountain range in the centre of the island. The chief climatological characteristics of the city are the extreme evenness of the temperature, and the

absence of dust and wind. It seems hard that one of these advantages should be called in question by one who in other ways has nothing but words of praise for the beautiful Atlantic island.

Intestinal Obstruction; by H. O. Thomas, M.R.C.S. *Abdominal Hernia;* by Rushton Parker, F.R.C.S. London: H. K. Lewis, 1883.—The author of this book, better known to the profession as the inventor of the splint for hip-joint disease which bears his name, believes that the usual treatment of intestinal obstruction is faulty, chiefly by reason of the complete lack of any guiding principle. The first eighty-two pages are devoted to a review of the literature of the subject, in which the author fairly makes out his case. In Chapter IV. we get an insight into Mr. Thomas's own views; they may be summed up thus—Costiveness, constipation or the retardation in the progress of the intestinal contents is an infinitesimal degree of obstruction, and "when we have arrived at a correct knowledge of the natural method of resolution in this trifling ailment, we shall have grasped the true principles for treating obstructions in general." Constipation works its own cure by altering the proportion between the solids consumed, and the liquids imbibed—"the imbibition of liquids being increased by thirst, and the consumption of solids being decreased from loss of appetite, the two prominent signs of genuine constipation." Dr. Thomas has been led to these views by seeing how harmless constipation may be when care in diet is exercised, and hence he considers the selection and restriction of diet as all-important in the treatmont of all forms of obstruction. "Food can be restricted in quantity, and selected in quality, without seriously lessening the sufferer's stamina." "The vitality is economised by rest in bed; protected by warm clothing and the soothing action of medicine, he cannot starve within the period usually assigned to the disease." The dangers and ill effects of purgatives are well described. The action of belladonna, and its value in obstruction, are discussed from a novel stand-point. The chapter on Sedatives is equally interesting, and will be found to contain much that is not found in the classical works on obstruction. On the whole, we must fairly admit that Mr. Thomas's work is both original and suggestive, and we recommend its perusal as likely to prove useful to all surgeons who have much to do with cases of intestinal obstruction. Mr. Rushton Parker treats of abdominal hernia, and makes some very terse remarks on herniotomy and kindred subjects. As many of his cases have been published in our columns, we need not here again more particularly refer to them.

Phthisis: Its cause, nature, and treatment; by John Parkin, M.D. David Bogue, London. Pp. 113.—This monograph, dedicated to the Royal Academy of Medicine and Surgery, at Madrid, by one of its corresponding Fellows, is apparently intended by its author to furnish conclusive evidence of the worthlessness of the germ theory of disease. Koch's bacillus is nothing more or less than a mushroom which, under certain favourable circumstances, can be made to flourish in diseased human tissues. Tubercular tissues appear to suit it best, but it may be found in other morbid concretions at times. There are several forms of fungus, however, to be found in the very same places. Why, therefore, should it be assumed that Koch's bacillus alone is to blame for the conditions which their presence entails? These micro-organisms get into the body by way of the mouth, and ought to set up disease in proportion to their number and extent of concentration, and yet the Kalmucks and other races in uncivilised regions devour countless myriads of these noxious parasites and seem to enjoy the best of health! Having disposed of Koch and his theories by these and other equally cogent arguments, the writer states his own conviction that the true cause of consumption is "malaria." From examination of the statistics given by Louis and other authorities, he finds it "very difficult to understand how hereditary predisposition can exert any influence in the production of phthisis." The real exciting cause of the disease is the introduction of the poison into the blood. The different forms of carbon, and particularly the gaseous form, have the property of neutralising the poison termed malaria. Hence carbonic acid gas is the most appropriate remedy when the air passages are the seat of malarial disease. Dr. Parkin's views upon some of these points have been held by him for 50 years. While bowing with respect for theories of so long standing, we cannot suppress a feeling of regret that they should be thus compelled to appear in their old age, unsupported by a single prop of fact to protect them from the shattering force of the evidence afforded by the experimental pathology of to-day.

ABSTRACTS AND EXTRACTS.

PROFESSOR CHARCOT ON A CASE OF HYSTERO-EPILEPSY.

The following lecture, delivered at the *Salpétrière*, is reported in the *Gazette des Hôpitaux*, September 9th. I wish to show you to-day, Professor Charcot observed, a case of the greatest interest in relation to diagnosis and prognosis, and one which is only exceptionally met with in practice. It is that of a young woman, long since the subject of hystero-epilepsy, the attacks of which are characterised by the four ordinary phases—the epileptoid phase, the phase of contortions, the passional phase, and the phase of delirium. But what is specially remarkable in her case is the epileptiform or epileptoid attacks which succeed each other in series of paroxysms, lasting for several days and formidable by their number, so that one is led to ask whether these attacks are a transformation of hysteria or whether they are a complication of it—a fact which it is of the highest importance to clearly distinguish, the prognosis varying so much in its gravity. For, in fact, if we have to do with the epileptiform disease, whatever may be the number and duration of the attacks, we are able to say that they will terminate in a favourable manner; while, if we are in the presence of true epilepsy, with such a number and duration of attacks, the prognosis is that death may speedily ensue. The attacks, or rather each series of attacks, in this patient is separated by a more or less long interval, and each of them commences with the tonic phase to which succeeds the clonic phase, and then comes resolution of the limbs and the stertor, each being preceded by a kind of small initial cry. The clonic movements are especially marked on the right side, and neither ovarian pressure, nor frictions along the spinal region exert any influence on the attacks. This woman never bites her tongue, very rarely foams at the mouth, and never wets the bed during the attacks. Her paroxysms are grouped in series of thirty or forty, and sometimes even more, attacks without any interval, and terminating in quite a peculiar mode of waking up. This is, indeed, characterised, so to say, by the passional phase, the woman, bounding to the foot of the bed and hiding her head for some seconds under the bedclothes, returns at once to herself feeling more or less fatigued and complaining of being too hot—and that is all. After a few instants she regains a state of health which is nearly normal. These epileptiform crises present a most striking contrast to true epileptic fits, which always terminate in deep coma. These crises to which the patient is a prey date from the 4th September, when she had 113 attacks, and next day these increased in number to 230 in five series, while on the 4th there were 380 in nine series. Next day there were 700 odd in the twenty-four hours. The present crisis, of which you are witnesses, consists of 43 attacks without any interval between them. What is remarkable is not only the epileptiform character of the attacks, but also their disposition in series which are always preceded, not by an *aura*, but simply by a state of discomfort, marked by a little headache, some troublesome beating in the temples and a kind of hissing in the ears, the attack immediately succeeding. In this case, then, we have not to do with epilepsy but with a transformed hystero-epilepsy, a condition of disease which I have designated as *hystéro-*

épileptique épileptiforme. The diagnosis is here of great importanee, for while in epilepsy attaeks of a like duration eannot persist beyond a few days without a fatal termination, in this form of disease the issue is always favourable. The thermometer is an exeellent means of diagnosis; for, while in hystero-epilepsy we do not find the temperature exceeding 38·2° or 38·4° C, in true epilepsy, even from the second day, it reaehes rapidly 39° and then 40°, 41°, or even 42° on the following days—so great is the differenee between the two affeetions. It is now seven months sinee this woman was seized with these erises, the first one lasting fourteen days, during whieh the total number of the attaeks amounted to 4,516, when the crisis eame absolutely to an end. The seeond erisis had only continued four days when this leeture was delivered. All means of treatment have been tried without any effect, bromide of potassium in doses of from 12 to 14 grammes proving as useless as the rest. Professor Chareot has only met with three other eases, all exaetly resembling the one just described.

GYNÆCOLOGY AND OBSTETRICS.

The Spiny Pelvis and its Obstetric Consequences.—Dr. M. Hofmeier eontributes to a reeent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* (Band X., Heft. 1), an artiele on the "Staehelbeeken," a word which we have translated by its literal equivalent, the "spiny pelvis." It means a pelvis which has projeeting into its eavity, bony spines, nodules or edges, and was first deseribed by Kilian. These projections are found most eommonly at the insertion of the psoas parvus, where there is sometimes a tuberele; along the pubie crest, which is oeeasionally a sharp ridge, or a spine; or along the saero-iliae articulations or pubie symphysis, where there are sometimes little bony outgrowths. Dr. Hofmeier now deseribes a ease of labour in which deformity of this kind was present. There was synostosis of the bodies of the last lumbar and first saeral vertebræ. From the saeral promontory, below the synostosis, a sharp ridge of bone jutted out towards the symphysis, forming with the saerum an angle opening below. It narrowed the eonjugate to three-and-a-half inches. The patient's first labour had been followed by the formation of a vesico-vaginal fistula. In the second, extraetion of the ehild was with difficulty effected by turning, although premature labour had been brought on at the end of the thirty-sixth week. Death took place two-and-a-half hours after delivery, from eelampsia. It occurred to Dr. Hofmeier that it was remarkable, seeing that the bony ridge was behind, that the anterior part of the genital canal should have been injured instead of the posterior. Perforation of the posterior part of the vagina or eervix uteri, by pressure, is an aeeident of parturition of whieh little notice has been taken by systematie writers, Spiegelberg being almost the only writer who has given a detailed description of it. Dr. Hofmeier therefore examined carefully the posterior wall of the uterus and vagina, and found a eieatrix, with adhesions in Douglas's poueh, about half an ineh below the external os, a point just opposite to the site of the vesieo-vaginal fistula. He also relates another ease in his own practice, in whieh perforation of Douglas's poueh oeeurred, the patient reeovering. The practical eonelusion he draws is that perforation of the genital canal on its posterior surface is probably mueh more frequent than is thought; but that commonly adhesive inflammation is set up, by which the injured part is shut off from the general peritonæal eavity, and henee the symptoms are slight, soon pass off, and therefore are often unnoticed.

Ovarian Disease Complicated with Pregnancy—Ovariotomy — Porro's Operation — Recovery.—A successful ease of this nature has just been placed on record by Mr. George Fortescue in the *Australian Medical Gazette* for May. The patient was an unmarried girl, aged 21, who had suffered from pain in the pelvic region for two years, and had for some months noticed a swelling in the lower part of the abdomen. She eame under observation in September, 1883, and menstruation had then been absent a month. The physieal signs indicated an ovarian tumour springing from the right ovary, and a preliminary tapping gave some thin eolloid semi-fluid material, eontaining par-albumen. After the tapping, a smaller eyst could be reeognised extending to the left of the other one and upwards. In January the operation of ovariotomy was determined upon. The possibility of eoineident pregnancy was borne in mind, but seemed to be negatived after a eareful examination from that point of view. When the abdominal seetion was made, two eysts eame in sight; the larger one was punetured, and a large quantity of dark eoloured semi-fluid material evaeuated, and as the other cyst was in the way of the withdrawal of this one, it too was punctured, and a watery fluid eseaped. On withdrawing the trocar, however, there was tolerably free hæmorrhage. This was stopped by the pressure of the foreeps, and a more complete examination diselosed the faet that this second tumour was the pregnant uterus. The fœtus, placenta and membranes having been removed, it was deeided, seeing the somewhat rough handling the uterus had received, that it should be removed. This was aeeordingly done, the right ovary being removed with it. The peritonæal edges of the incision were applied closely round the pediele but were not sewn to it; a drainage tube was put in, and the wound dressed antiseptically. The antiseptie spray was not used, and the operation lasted about an hour and a half. The patient made an uninterrupted recovery.

Super-alimentation in the Vomiting of Pregnancy.—In the *New York Medical Journal*, Dr. Millard has detailed the ease of a primipara three-and-a-half months pregnant. Vomiting had been exeessive for two months, there was profound exhaustion, and the general eondition was so serious that the induetion of premature labour appeared advisable. Other modes of nourishment having failed, the use of Debove's tube and the introduetion of the prepared beef-powder was tried as a last resouree. At the end of fifteen days so mueh improvement had been gained that ordinary diet eould be resumed; in another three weeks the patient eould take enough food to maintain her strength and to go about the room. She has sinee remained quite free from nausea.

The Treatment of Retro-Uterine Hæmatocele.—In a paper published in a recent number of the *Archiv für Gynäkologie*, Dr. Paul Zweifel advoeates more frequent interferenee with these effusions than has hitherto been eonsidered good praetiee. It seems to us, however, that the faets he adduees do not strongly, if at all, support his eontention. He advises ineision per vaginam, under antiseptie preeautions, followed by frequent washing out of the eavity in whieh the blood has been eontained. He relates four eases of his own in whieh this praetice was followed; three got well and one died. He quotes from other sourees 24 eases treated by incision per vaginam, of which five died. In two of these eases death occurred by sudden eollapse following the washing out which Dr. Zweifel reeommends. As he thinks the washing out was not done in these eases in a proper manner, our author eliminates these two, and reekons, including his own, four deaths out of 26 eases, or a mortality of 15·3 per eent. In our view, however, the two omitted cases ought by no means to be lost sight of, for they prove that the washing out of sueh eavities is not a thing to be done with perfect eonfidenee in its safety. Our own impression is that most cases do just as well without it. Dr. Zweifel then adduces a eolleetion of 66 cases treated by puneture, with 10 deaths, or 15·1 per eent.: a result much the same as that gained by the praetiee of ineision. Bearing in mind the fatal eases of injeetion, puneture seems to be the safer praetiee. Lastly, Dr. Zweifel gives for comparison a eolleetion of 129 published eases treated on the expectant plan, with a mortality of 18·4 per eent. But it must be remembered that published eases availablo for comparison eontain an undue proportion of fatal eases, and of eases in whieh the hæmatocele discharged into a mucous tract; for it is only in such eases that (independently of treatment) the diagnosis is eertain. It is familiar to every gynæeologist that small pelvie tumours, aecompanied with the history and having the signs of hæmatoeele, are very common, and generally get soon well, the mortality among such cases (of

which the diagnosis, although not scientifically certain, is yet as sure as that of the cases calling for operation) being nothing like 18 per cent. We regard Dr. Zweifel's figures, combined with daily experience, as confirming the old rule, not to meddle with hæmatoceles unless urgent symptoms, either of pressure or pyrexia, are present. We agree with him that, if we do anything at all, a free incision is best; but the subsequent washing out adds a new source of danger, and, if free exit for discharge be maintained by a drainage tube, is not required. If an india-rubber tube will not keep open, a glass one can be used.

Scarlet Fever in Pregnancy.—Dr. Leale terminates a paper on this subject with the following conclusions:—(1) Scarlet fever may attack the fœtus in utero. (2) A large proportion of children born with scarlet fever recover. (3) Scarlet fever of the new-born child has the same manifestations as in later life. (4) It may attack the woman during pregnancy and also immediately after child-birth. (5) It is exceedingly fatal during pregnancy and parturition. (6) It rarely if ever attacks the parturient woman if she has had it previously. (7) It causes death by coma, exhaustion, or convulsions. (8) Being a self-limited disease, it is best treated by relieving dangerous symptoms, and in accordance with the rules of hygiene. (9) It only exceptionally occurs during the ages that women bear children, therefore the proportion of those liable to contract the disease during pregnancy and child-birth must necessarily be small. (10) Scarlet fever and septicæmia are distinct diseases, being unlike in many respects.—*Philadelphia Medical News.*

"Uterine Milk."—A recent number of the *Archiv für Gynäkologie* (Bd. xxii., Heft. 2), contains an article by Dr. Werth, of Kiel, on the so-called "uterine milk." It is chiefly a criticism of the observations of Hoffmann, which we noticed at the time of their publication (*Medical Times and Gazette*, 1883, vol. ii., p. 608). The appearances described by Hoffmann are, according to Werth, *post-mortem* phenomena. When he examined placentæ in the manner recommended by Hoffmann, some hours after birth, he found the account given by Hoffmann was quite accurate. But when he examined them in the same way *immediately* after birth, he did not find any of the bodies which Hoffmann calls "uterine milk globules." He, therefore, believes that these are of *post-mortem* formation. (Hoffmann, we may mention, in speaking of a "fresh" placenta, includes under that term one four hours old). Werth also disputes Hoffmann's claim to novelty, for he says that the fluid Hoffmann claims to have discovered had been extracted from the placenta by Klebs, in a way practically the same; and that the globules to which Hoffmann attaches so much importance had been already described by Langhans. He regards Hoffmann's view that these globules come from decidual cells as incorrect, because the decidua, after separation of the placenta, does not form so large a part of it as to be able to furnish the fluid and globules in such quantity. He believes he has ascertained their mode of production. They are formed in the epithelial cells which cover the villi, and they are extruded into the intervillal spaces by the bursting of these cells. He has seen the globules in process of extrusion, and the traces of rupture in the epithelial cells. They are, therefore, a *post-mortem* product of dead epithelial cells. Dr. Werth proclaims himself as in agreement with Kölliker, Langhans, and Leopold, in thinking that the intervillal spaces contain nothing else than maternal blood. Hoffmann's uterine milk he thinks is blood serum, mixed with the products of dead epithelium.

Dermoid Cyst of the Ovary with Long Pedicle.—The patient had an obscure mental and nervous affection following child-birth which had kept her in bed for three years, during which time there had been frequent retention of urine, necessitating the use of the catheter. On many such occasions a tumour had been felt, at times resting upon the bladder, at others in one or other lumbar region; it was repeatedly pushed up almost to the ribs, where it was for the moment suspected to be a floating kidney; for long periods it could not be found at all. The patient subsequently died of brain lesion. At the autopsy, the floating tumour resolved itself into a dermoid cyst of the left ovary, as large as the fist, with a pedicle nearly four inches long which allowed the tumour to be put in almost any part of the abdomino-pelvic cavity. It contained a wad of hair embedded in a mass of solidified sebaceous matter, and four small incisor teeth attached to an alveolar process connected with the wall of the cyst.—*Boston Medical and Surgical Journal*, August 7.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, November 4th, 1884.

J. W. Hulke, F.R.S., President, in the Chair.

Coarctation of the Aorta.

Dr. Hale White showed an example of this remarkable deformity. The specimen was taken from a man, aged 46, who during life had had a systolic murmur over the heart, and œdema of the legs. The aorta *post-mortem* was found so constricted opposite the site of the ductus arteriosus that it could only admit an ordinary probe. It was about the size of the subclavian beyond this, and the thoracic and abdominal aorta were small. The superior intercostal was large and convoluted, anastomosing with the first intercostal also very large. The posterior scapular branches anastomosed with the second, third and fourth intercostal arteries. The internal mammary arteries anastomosed with the aortic intercostal, the phrenic, and by their superior epigastric branches with the deep epigastric arteries. There were other minor abnormalities. The deformity was due to a faulty development of the part of the fourth left branchial arch, extending from the left subclavian beyond the ductus arteriosus. Both sides of the heart were much hypertrophied, and there was a patch of fibroid disease near the apex.

Caseous Pneumonia of the Entire Lung.

Drs. Lanchester and Hobson showed the lung and microscopical sections from this case. The patient died seventeen weeks after an acute attack of chest disease. The symptoms and physical signs were those of an empyema of the left side, including marked bulging and displacement of the heart to the right. Upon this diagnosis the chest was punctured in several places, and also incised, but with negative result. A drainage tube was, however, inserted into the wound, which continued to discharge sero-pus to the end. A spontaneous opening formed subsequently at the seat of one of the punctures in the axilla, and purulent fluid continuously drained through this. The surgical treatment was strictly antiseptic. A few days before death symptoms of tubercular meningitis came on. After death there was found to be no pleuritic effusion, but the whole of the left lung was solid, distended, and filled with dry, caseous material which, however, had softened down and left a cavity in the superficial parts of the upper lobe corresponding to the axillary opening. The artificial opening simply led into a blind channel in the lower lobe. The right lung was studded with miliary tubercles. There were also tubercles in the liver, which was fatty, in the kidneys and spleen. There were tubercular ulcers in the small intestines. The microscopical appearances in the affected lung showed thickening of pleura, a decided but not uniform increase of the alveolar walls, and the alveoli stuffed with inflammatory products in which epithelial elements could only occasionally be traced. As far as the experience of the authors went this case was unique. The sign which of all others was regarded by writers as diagnostic of *effusion* as distinct from *pneumonia*, viz., displacement of the heart and bulging of the chest walls, was present. The uniform consolidation and caseation of the entire lung, with an absence of a similar process on the opposite side, was also remarkable. The only cases which seemed at all parallel were those that have been described by Virchow, Wagner

and others as syphilitic pneumonia in infants. The possibility of syphilis in their case seemed out of the question.

Dr. Goodhart had seen a similar case. It was mistaken for empyema and tapped. The whole of the left lung was converted into a solid mass and there were tubercles. The disease was not rare in partial form; a solid cheesy mass was not uncommon in middle lobe of right lung. It certainly was not syphilitic, perhaps it was a diffused lymphosarcoma.

Dr. Duckworth said that clinically and pathologically such cases were rare. Caseous invasion from the bronchial glands was not uncommon, but in this case the disease enlarged the lung and the chest wall. The clinical history was one of tuberculosis, he thought, a good account of the microscopical appearances.

Dr. Percy Kidd thought he had seen several similar cases: the question of tuberculosis might be settled by an examination for bacilli.

Mr. Butlin recalled two or three cases tapped without result, in which the lung was solid.

Dr. Angel Money had seen two cases.

Dr. West said that a mistake between solid lung and empyema was almost unavoidable. His idea was that the tubes were occluded by secretion, or they might be pressed upon by new growth, and the consolidation be thus produced. He thought that the naked eye appearances were those of sarcoma.

Dr. Lanchester said that they could exclude syphilis. The bulging and displacement of the heart was most unusual. The structure was very hard; notwithstanding the treatment, the lung did not break down, which was unlike caseous pneumonia. He would be glad for a careful microscopical examination to be made. Specimen referred to the Morbid Growths Committee.

Epithelioma of the Left Upper Jaw.

Mr. Barker exhibited a specimen of this disease removed four years previously, the patient having been exhibited to the society in May, and having then no recurrence. The whole of the upper jaw had been removed, with the exception of the orbital plate and corresponding portion of the soft palate. The tumour was extensive but limited, and did not involve the glands. The growth was found after removal to be adenoid in structure, the groundwork consisted of a well-developed smooth fibroid tissue, in which large groups of cells were arranged like those of racemose and tubular glands in places. In the centre of these groups was a lumen, apparently the result of mucous degeneration. The cells were arranged without any regularity, they were smaller than ordinary glandular epitheliomata. The growth appeared to be identical with the multilocular epitheliomata described by Mr. Eve. The essential cells were somewhat smaller than those of epithelioma, but he nevertheless would refer them to that class.

Mr. Butlin thought that Mr. Barker had confused two diseases. This he believed was a carcinoma, or perhaps hardly passed into the stage of tumour. He had shown to the Society cases of epithelioma, but in all such, the case had shown great malignancy, but very little external swelling.

Mr. Cripps would call it a true adenoid growth. There were small spaces lined by epithelium; they were probably formed from a papillomatous growth with single layers of epithelium. In section it gave the appearance of cavities lined by epithelium. It was possibly innocent; that would depend on its mode of growth, and whether it was encapsulated.

The President asked if the lumina were as distinct at the outer margin as in the centre.

Mr. Barker believed the lumina were equally distinct throughout. The speakers had totally differed, and he suggested that the specimen should be referred to the Morbid Growths Committee.

Aneurysms of the Heart.

Dr. Percy Kidd exhibited four cases of this affection. The first was an aneurysm of the undefended space, obviously of congenital origin, and due to imperfect development of the membranous part of the ventricular septum. The dilatation of one sinus of valsalva which was present was doubtless the result of atheroma. The second and third cases illustrated the influence of the friction of pendulous vegetations against the cardiac walls, the resulting erosion of the endocardium being the starting point of an aneurysmal bulging. In both these cases there had been rheumatic fever, and great pain in the præcordial region was a prominent symptom during life. In the fourth case the aortic valves and aneurysm were the seat of a marked fibroid change, and there were no traces of endocarditis. The patient had frequently had chronic rheumatism, but it was doubtful whether he had had acute rheumatism. It was well known that aneurysm of the heart was dependent upon a gradual yielding of some diseased part of its walls to the intra-cardiac blood pressure. Three of his four cases were instances of aneurysm resulting from endocarditis, acute or chronic, of rheumatic origin, and all four patients were males.

Dr. Angel Money referred to a girl aged 5, who had died with febrile symptoms and a loud heart murmur. There was an aneurysm bulging into the right ventricle and opening up the laminæ of one of the flaps of the tricuspid valve. There was a gumma of the brain which probably caused the idiocy, and he thought that the heart affection might have been syphilitic.

Lymphosarcoma of the Liver.

Dr. Howard Tooth showed specimens of this disease taken from the body of a female child, aged 5, who had been losing flesh for six months and had suffered from diarrhœa and epistaxis. There was no history of jaundice. At the *post-mortem*, tubercles were found in the lungs. The spleen and kidneys were natural. The liver was uniformly enlarged, very pale and smooth on surface, weighing 48 ounces. Microscopically it was infiltrated with small round cells, more marked towards centre than at periphery. In the central part there was a good deal of fibrous tissue. The condition was uncommon, especially in so young a child. It might be taken for leukæmic enlargement, but there was no enlargement of spleen or lymphatics. The amount of connective tissue was small, and there was no history of jaundice or ascites, so that cirrhosis was excluded.

Paraplegia and Ulceration of the Bowels.

Dr. Theodore Acland brought forward two cases of this association. Both patients had had syphilis; in both the symptoms resembled simple softening of the cord, and ran a rapid course, one ending in three weeks, the other in a month. In both ulceration had been mainly confined to those parts of the bowel which had been most distended, in one occurring in the small intestine, in the other in the stomach and colon. The question naturally arose, whether the nervous lesion had any causal relation to the intestinal lesion. Tubercular, syphilitic, cancerous and typhoid ulceration were excluded. The appearances were those of simple loss of substance rather than of an inflammatory change. The temperature was never above 100°, and was mostly subnormal. The question was then, whether the ulceration was due to simple distension or whether it was the result of loss of nerve power and analogous to a bed-sore, due therefore to pressure in a viscus whose distension resulted from lesion of the nervous system. In support of this view it was shown that the lesion of the cord was in the dorsal region, which suggested a probable implication of the roots of the thoracic ganglia whence arose the splanchnic nerves.

Card Specimens.

Dr. Turner. Hæmatoma of the dura mater. Endocarditis with ulceration.

Mr. Victor Horsley exhibited the body of a monkey, showing the effect of the removal of the thyroid. There was commencing atrophy of the cerebral convolution, and atrophy of the right ventricle. There was a gelatinous, opaque condition of the connective tissue throughout the body, and swelling of the salivary glands.

SOCIETY OF PHYSICIANS OF VIENNA.[1]

FRIDAY, OCTOBER 17TH, 1884.

PROFESSOR V. ARLT in the Chair.

Case of Universal Favus.

PROFESSOR KAPOSI showed a unique case of "Favus universalis." He had never seen nor heard of such an interesting development of this affection. When the patient first came to him three weeks ago, his extremities and the greater part of his trunk were covered with confluent yellow points of the size of a pin's head, while his head presented large favus crusts. In the short interval that had since elapsed, the disease had spread extensively, the crusts had become very large, and new ones were constantly forming. They now covered the scalp and face, the trunk, and the extensor aspects of the extremities. The patient could only move his limbs with pain and difficulty.

Cocaine as an Anæsthetic in Ophthalmic Practice.

Dr. CHARLES KOLLER read a communication on this subject. The anæsthetic influence which cocaine exerts when applied locally to the mucous membrane of the tongue led Dr. Koller to try its effect on the eye. After referring to the publications of Schroff, Anrep and Freud, he made several experiments on animals in Professor Stricker's laboratory, from which he found that two or three drops of a two per cent. aqueous solution of chloride of cocaine, introduced into the conjunctival sac, rendered the cornea and conjunctiva quite insensible. If he scratched with a needle, or even perforated the cornea of animals so treated, or passed a strong electrical current through it, or touched it with caustic, the animals felt no irritation at all. As to the duration of this anæsthesia, he could obtain no idea from his experiments on animals. He tried to find out if cocaine had also an influence on the inflamed cornea. He first produced keratitis in animals by introducing a foreign body into the eye, and he found that the cocaine also acted as a local anæsthetic under these conditions. The success of these experiments on animals led him to try the effect of cocaine on the human eye, and he had obtained the following results:—(1) One or two minutes after introducing a few drops of a two per cent. solution of cocaine chloride, the cornea and conjunctiva were rendered completely insensible; he could seize the conjunctiva with hooked tweezers and exert considerable pressure on the cornea and the patient felt nothing, nor were there any reflex movements. The anæsthesia lasted from seven to ten minutes, and disappeared gradually. (2) Simultaneously with the anæsthesia, considerable dilatation of the palpebral orifice occurred, which he explained by the absence of the sources of irritation which otherwise affect the cornea and conjunctiva. (3) The ocular and palpebral conjunctiva became anæmie. (4) Fifteen minutes after introduction, mydriasis set in. It was never present in any great degree; after an hour it decreased considerably, and totally disappeared some hours later. During this period the pupil re-acted quickly. (5) Paresis of accommodation set in together with the mydriasis, and also disappeared with it. (6) When the application of the above-mentioned solution of cocaine chloride was continued, and repeated every five minutes, the anæsthesia of the cornea lasted from fifteen to twenty minutes, and the deeper parts of the eyeball became anæsthetic, its sensibility being much diminished on pressure. (7) The application of cocaine never produced any signs of irritation. Dr. Koller had further made therapeutic experiments with cocaine in Professor v. Reuss' clinic, and found that it was a good anodyne in diseases of the eye which were associated with pain. He obtained good results with it in various diseases of the cornea and conjunctiva, which were associated with pain and photophobia, as *e.g.*, syndesmitis lymphatica and erosions of the cornea; it was also of use in cases in which the touching of the eyelids with nitrate of silver would cause severe pain. He recommended the application of cocaine in cases of iritis and iridocyclisis where the contraction of the vessels must render good service. The application of cocaine as an anæsthetic in ophthalmic operations had excellent results in thirty cases of removal of foreign bodies from the cornea, in cases of tattooing cicatrices on the cornea, in two cases of operation for staphyloma in children, as well as in several iridectomies and operations for cataract. When the anæsthesia in these operations was produced according to the method which Koller had recommended, *i.e.*, with a five per cent. solution, the patients stated that they felt nothing of the corneo-scleral incision, while the seizing and excision of the iris caused them but little pain. In this respect he quoted an interesting case in which iridectomy was performed on a man who had suffered from "seclusio pupillæ," affecting both eyes; the solution was applied in the operation on one eye and omitted when the other eye was operated on a week later. The patient declared he felt no pain at all during the first operation, but his restlessness during the second operation rendered it difficult.

Dr. KOENIGSTEIN said that simultaneously with, but independently of, Dr. Koller he had made experiments with cocaine and as his results were much the same as those obtained by Dr. Koller, he would only mention those details which completed the communication of Dr. Koller or which varied from it on some points. He had begun his experiments towards the end of August last, at the suggestion of Dr. Freud and made them at first on himself, and the members of his family, and on his acquaintances, and subsequently on a considerable number of patients in the ward of Dr. Scholz in the General Hospital. A drop of a one per cent. solution of chloride of cocaine introduced into the eye caused a slight burning pain. A little later slight tension could be felt in both the eyelids; which induced him to rub the eye, and on this occasion he convinced himself that no reflexes were present on the touching of the conjunctiva and cornea, and further that they were insensible even on more violent manipulations. At the same time the palpebral opening grew wider, and the eyeball seemed to be protruded; in order to close the "cocainised" eye a greater effort had to be made than in the case of the normal one; all the ocular symptoms of "Basedow's disease" were present. The conjunctiva was exceedingly pale, the small vessels had disappeared, the larger ones were contracted. Ten minutes after the instillation a slight difference between the pupils was already noticeable; after twenty minutes the pupil was of medium size; it did not dilate any further, but presented reaction to strong light. The interference with accommodation was trifling. After about two hours the pupil contracted, and the palpebral cleft again became smaller, and after six hours all difference between the pupils had disappeared. Experiments with concentrated solutions gave more marked effects. The use of a ten per cent. solution of acid reaction was attended with no disagreeable effects except a very intense burning pain. If cocaine chloride were employed in the solid form, the effects were most intense, and it was interesting to observe that even the surface of the lids lost their sensitiveness. The susceptibility of individuals to this alkaloid varied considerably; moreover, when cocaine was repeatedly applied, the eye seemed to become more tolerant of it. The experiments on animals, on frogs, rabbits, dogs, pigeons and fowls, gave similar results. The conjunctiva and cornea were insensible to injuries and chemical irritants. Further experiments had been tried on curarised frogs as to the contraction of the vessels, which, by means of the ophthalmic micrometer, was found to occur in the tongue, whilst the contraction of the vessels of the intestine and the liver could be seen distinctly. Dr. Koenigstein believed he had also seen an effect from cocaine on the vessels of the human retina, but of this he could not speak with certainty. The indications for the use of cocaine in ophthalmic practice were obvious. It should be employed where operations had to be performed in the eye as in the removal of foreign bodies, and of granulations, &c. As an anodyne cocaine should always be tried when painful processes were going on in the eye, whether there were disease of the cornea, the conjunctiva, or of deeper parts of the eyeball. He (Dr. Koenigstein) had used it with considerable success in applying caustics to the cornea and conjunctiva, in painful erosions and phlyctenular and pustular

[1] Reported by our Vienna Correspondent.

processes, combined with blepharospasm and pain, also in a case of herpes zoster and kyklitis, and in supra-orbital neuralgia. In touching with caustics, cocaine diminished the pain for a short time, but according to the patient it was more severe afterwards. The power of cocaine in diminishing the blood supply was tried in one case of iritis; a strong solution was used and it was found that cocaine was as efficacious in this respect as atropin. The application of cocaine was found very useful in dilating the pupil, and slightly paralysing accommodation in examinations with the ophthalmoscope; the patient's sight was not impaired, and in this respect cocaine was superior to all other mydriatics. It might be suggested that cocaine acted through the peripheral nerves of sensation; the dilatation of the palpebral cleft, the protrusion of the eyeball, and the slight dilatation of the pupil, however, seemed to point to its acting through the sympathetic, on the irritation of which all the symptoms appeared as well as constriction of the vessels.

Professor v. Reuss confirmed the communications of Dr. Koller, as the experiments had been executed in his clinic. Their success was so striking that he would advise every oculist not to perform any operation without cocaine; but it must be applied exactly according to the method prescribed by Dr. Koller, for if this was not followed the patients suffered from pain. In the extraction of cataract cocaine proved so excellent that patients whom the speaker was afraid of operating upon were perfectly quiet and stated they felt no pain at all. He was quite convinced of the efficacy of cocaine; it might be that there existed here and there individual differences, but one was not entitled to condemn a medicament because now and then a patient felt pain on operation in spite of its employment. He also confirmed the observation as to the dilatation of the pupil and the paralysis of accommodation. There was another question which was exceedingly important from the practical stand-point. He wished to find out if cocaine could be applied as a mydriatic in glaucoma; but without any previous experiments he would have feared to employ it in such cases. The experiments had, however, shown that when myosis had been pushed to an extreme by the use of eserin, mydriasis did not occur after the introduction of a five per cent. solution of cocaine. The effect of the eserin was therefore not at all influenced by the cocaine; on the other hand, myosis occurred quickly after the introduction of eserin into a cocainised eye in which the pupil had been dilated. He would, therefore, venture to apply cocaine in a case of glaucoma.

Dr. Hock had also tried experiments with one per cent. solutions of cocaine, the results of which were very satisfactory.

HARVEIAN SOCIETY OF LONDON.

Thursday, October 15th, 1884.

G. P. Field, M.R.C.S., President, in the Chair.

Interstitial Keratitis.

Mr. Juler, in a paper on this subject, referred briefly to the well-known changes noticed in the tissue of the cornea, as a result of chronic inflammation, and dwelt upon the leading clinical features and upon the treatment of the affection. One eye was usually affected for two or three months before the disease extended to the other eye. Pain and photophobia were symptoms subject to much variations; photophobia, when present, generally pointed to the existence of superficial ulceration. Prognosis was favourable, the opacity ultimately clearing up completely, but the process of cure was slow. The systematic administration of grey powder and of tonics, and the local use of atropin were eminently successful. A congenital syphilitic taint could be traced in at least 90 per cent. of the cases, and, with this, marked anæmia was generally combined.

The President alluded to the frequency of interstitial keratitis in cases of diseases of the ear. In his experience girls were affected in a much higher proportion than boys.

Dr. James Thompson expressed his firm belief in the syphilitic nature of the affection and in its curability by mercury. Dr. Thompson called attention to a sign of congenital syphilis, never absent in these cases, and to which he had found no reference in medical literature. In syphilised children, instead of the clean frontal line formed by the healthy hair of the scalp, an irregular border of fine fluffy hair, about half an inch to one inch wide, is almost invariably present.

Mr. Hartridge referred to the persistence in the cornea (after apparently complete cure of the opacity) of fine lines or striæ due to the obliterated vessels of the "salmon-patch" of Hutchinson. A case was mentioned in which the keratitis was the outcome of acquired syphilis.

Dr. Buzzard wished to remind the Society that the great advances made in the pathology and in the treatment of the affection, were mainly due to Mr. Hutchinson's teaching. The syphilitic nature of the disease was no longer a matter of doubt and the propriety of a mild mercurial treatment could hardly be questioned.

Dr. Alderson gave the full details of a case which exemplified the insidious mode of onset sometimes observed; the patient recovered perfect vision under the administration of grey powder and quinine, with occasional purgatives.

Demonstration on the Mechanical Principles of Surgical Apparatus.

Mr. Noble Smith remarked that although the application of splints and their management in the treatment of ordinary fractures received a full share of attention in lectures and in text-books, the use of apparatus for orthopædic cases was seldom adequately dealt with, and the principles which ought to guide the surgeon in devising and in using such apparatus were almost entirely ignored. The student, left in ignorance of these matters, was obliged in after years to rely too much upon instrument makers, whose knowledge of surgery was necessarily incomplete. Mr. Noble Smith demonstrated by means of a lay figure the principles which he thought should be followed in applying a splint for hip-joint disease; he also explained, by means of diagrams, his views as to the successful use of apparatus in cases of diseased spine, of knock-knee, of bowed legs, and of other orthopædic affections.

Referring to some of the author's remarks, Dr. James Thompson stated that he had recently removed a plaster-jacket which had been worn for three years without any interruption. The skin presented no abrasions or marks of any kind, and the boy had felt comfortable throughout. There remained no trace of any spinal deformity.

Mr. R. Fitzroy Benham did not regard the model exhibited to be an accurate illustration of a diseased hip-joint. The pain stated to be produced by mere extension of the limb was not brought about by pressure of the fluid against the upper part of the acetabulum, but by contact of the opposed inflamed surfaces. He failed to see the difference between the apparatus exhibited, and the apparatus known as Thomas's splint. Mr. Benham did not consider a padded back-board to be the best means of support in Pott's disease, but preferred the poro-plastic jacket. Sayre's plaster-jacket, unless applied with great care, might be worse than useless. He did not agree with Mr. Noble Smith that in severe cases of genu valgum it was advisable to allow the patient to go about with walking instruments until the inner malleoli could be brought together by means of appropriate supports, rest, and above all, manipulation.

Acetum Opii.—This preparation is made of opium ℥ v, nutmeg ℥ i, sugar ℥ viii, and dilute acetic acid ℥ ji. It is the strongest liquid preparation of opium, viz., 75 grains to the ounce, or gr. j to ℥ vi ss. It is nearly free from the sickening smell of opium and less apt to nauseate. The nutmeg helps to prevent nausea, and there is almost complete absence of narcotine, the ingredient of opium which is most irritating to the stomach. In this the acetate equals deodorised opium. Dose, 5 to 10 minims. It is made still more pleasant and efficacious if given in aromatic vinegar.—*New York Medical Record*, August 2.

MEDICAL CONSULTATIONS.

No. II.

A BATTLE OF SYSTEMS.

SCENE—*The consulting-room of M.D., Oxon.*

DRAMATIS PERSONÆ.

M.D., OXON.—*A Professor Emeritus.*

M.D., LOND. } —*London medical teachers.*
M.D., EDIN. }

M.D., OXON. Well, there's an end to that business, thanks to your kind help. And now bring your chairs to the fire and let us have a talk. (*To* M.D., EDIN.) What sort of an entry have you at St. Anne's, this year?

M.D., EDIN. Wretched! Worse than it has ever been since I have known the place. However, I am not surprised. The fact is, a small school is a mistake.

M.D., OXON. If so, the remedy is obvious; make it a large one.

M.D., EDIN. The very thing we have been trying to do We have a hard working staff—I don't believe any staff in London toils harder. We have spent hundreds on our new school and yet ——. The fault is not in us, but in the system. We are like an orchestra, whose instruments have got mixed. You know Jones?

M.D., OXON. Very well. I think highly of him.

M.D., EDIN. Yes, so does everyone, as a physician, but he knows no more of modern physiology than a country surgeon, and so he has to lecture upon it. That is the most flagrant example but it is pretty much the same throughout. Brown, who is absorbed in skins, has to teach botany; Smith, a brilliant surgeon, holds the chair of forensic medicine, a subject he despises; while Robinson, pathologist and sceptic, has to lecture on drugs, his ignorance of which is only equalled by his distrust of them.

M.D., OXON. And you?

M.D., EDIN. O, my case is just as bad. I am an amateur like the rest—or rather, worse than an amateur, for mine is not a subject I love. A lecturer on comparative anatomy ought not to have a constitutional horror of frogs and lizards.

M.D., OXON. But you teach clinical medicine as well?

M.D., EDIN. Not at all, except in the out-patient room. That is another blot on the system. I should no more think of taking my class into the wards than I should think of levitating up your chimney.

M.D., OXON. For fear of black looks.

M.D., EDIN. Exactly; my experience of small hospitals is that they are nests of jealousy. Each member of the staff has his little circle chalked out for him, and, to say the truth, he is eager enough to take it on any terms. Well, so long as he keeps within it, all works harmoniously. But let him, through zeal or officiousness, once step beyond it, and every one of his colleagues is down upon him.

M.D., OXON. I am not sure that the colleagues would be to blame. What would happen to a watch, for instance, if one of its wheels took upon itself to make excursions beyond its orbit? I am inclined to think that the other wheels would have just grounds of complaint.

M.D., EDIN. Aye, but a school is an organism, and not a machine. If one of your organs is not up to its work, does not another step in and do it for it? There is no jealousy or complaint there.

M.D., OXON. (*Smiling*). Jealousy, perhaps not, though who knows? But complaint, certainly.

M.D., LOND. As for jealousy, I don't know that the small schools have a monopoly of it. A good teacher is naturally jealous, and quite properly so, of any encroachment on his province. In a well ordered school, however, there should be no occasion for jealousy. Each teacher has his students allotted to him, and in his own particular circle is beyond the reach of competition.

M.D., EDIN. Yes, and that is the very reason why I condemn the whole system. There ought to be jealousy; there ought to be competition, instead of the array of safeguards by which we in London protect the teacher from all possible rivalry. Any living teaching is impossible with such a system. You condemn the trades unions because they drag down their best men's work to one dull average, and yet you cling to a system which does exactly the same thing, which absolutely discourages a man from putting forth his best powers. Give me the Edinburgh system!

M.D., OXON. In London, with its widely distant schools, it would be unworkable.

M.D., EDIN. I don't see why. Of course it would be a tremendous innovation, but if London teachers knew their best interests, they would not rest until they had introduced it. If they wish to keep up their entries, they will have to do it sooner or later, and why not now? In the first place, they would have to abolish the lectureships in half the subjects at all the small schools. It is simply absurd to have eleven lecturers on anatomy, physiology, chemistry, botany, forensic medicine, and comparative anatomy, when three for each subject would more than suffice for all the London students. There would then be some chance of each lecturer taking up his subject as his life-work, instead of making it merely a secondary object, a means of eking out a narrow income while he waits for practice. How can you expect a man to lecture competently on forensic medicine, when he sees no forensic practice? There is enough work in London for perhaps two or three experts in medical jurisprudence. All the rest of the lecturers must necessarily be mere amateurs at their business——retailers of book-work.

M.D., OXON. On that point, I grant, your argument seems sound enough, but the subject is after all a small one.

M.D., EDIN. I only use it as an illustration. However, look at my second point. Take clinical teaching. As it is, there is absolutely no competition, no encouragement to a good clinical teacher to teach well. However well he teaches, he gets the same fees as the man who does not teach at all. He is followed perhaps by a larger class, but he is only able to draw his pupils from a single hospital. If I had my way, I would throw open the whole clinical teaching of London to every medical student, give him a clinical ticket which would allow him to attend any hospital and any teacher, and arrange that the man who attracted the largest class should be the best paid. Then you would have a really healthy competition, and it would become worth a man's while to devote his life to teaching, and so to become really an expert in it.

M.D., OXON. Your ideas are large, and like all large ideas have a certain momentum in argument. I doubt, however, if they could be carried into practice so easily as you think. To introduce them would be to disorganize a system which has grown up with time, and which, you will admit, has turned out as good men as any other. I wonder what our friend here thinks of them.

M.D., LOND. I admit that the ideas are large and attractive, but there is a great deal to be said on the opposite side. Of course I can only speak from my own experience, but I am inclined to think that the teaching of

special subjects to medical students by pure experts is less successful in practice than in theory. At St. Paul's, as you know, physiology is taught by a pure physiologist, pathology by a pure pathologist, chemistry by a pure chemist, and so on. We are pure throughout. But see what the effect is. The physiologist teaches physiology as though everyone of his pupils were destined to engage in pure research. The chemist sees before him not medical students, but the future directors of dye works and soap manufactories. The pathologist thinks that a medical education should centre round the *post-mortem* table and the microscope. Each teacher by eternally focussing his eye on a small field, loses the power of accommodating it to more distant objects, and in the end grows to look upon his own branch of science not as a piece to be fitted into a puzzle, but as the puzzle itself. I verily believe that medical students are better taught by men who are first of all practical physicians and surgeons, and teachers of special branches only in a secondary degree. At any rate, if you have all your subjects taught by specialists, you ought to have a strong central authority, whose duty it would be to co-ordinate the various subjects and see that they are kept in submission to the one purpose of his school—the training of medical practitioners.

M.D., OXON. Well spoken for the defence. Now let me have your views on the second point, and then as an impartial onlooker, if you will allow me, I will do my best to sum up.

M.D., LOND. Well, I admit that in respect to clinical teaching, my friend has a strong case. But he assumes too much. He assumes that the average medical student is perfectly competent to judge who is the best teacher, an assumption which I cannot admit.

M.D., EDIN. Why not?

M.D., LOND. For this reason. As a rule the student only knows which teacher coaches him best for his examination, and the fear is that if you introduce a system of competition you will convert every successful clinical teacher in London into an examination coach, and the higher clinical teaching, which has no attraction at all for the examination candidate, will simply die of inanition. I believe that in London with all our protective safeguards, as our friend calls them, we have better clinical teaching than in Edinburgh, for it is conducted from a pure love of it, and with little ulterior hope of gain. Then if you draft off all the students to a few teachers, you will not only overcrowd their wards and work their material to death, but you will take the heart out of all the less able teachers and render the beds at their disposal useless. Possibly a modified system of competition for picked students and practitioners might work, but for the average student who wants looking after and often driving into the wards, a system under which he was allowed to cater for himself would simply excuse him from ward work altogether. He would naturally go to the teacher who would sign him up most easily.

M.D., EDIN. Stay a moment. If you adopt my system you must sweep away the whole apparatus of schedules. Improve the examinations. Test a man's real knowledge, and let him get it where and how he will. In my opinion schedules are only a sop to lazy examiners.

M.D., OXON. Surely that question is too large to enter into. I really think I must rule it out of court. And now if neither of you has anything more to say, I will tell you the views of an old man, who has lived long, who has taught many, and thought much. Possibly you will call them commonplaces, but if so they are commonplaces for which no place is found in either of your systems. In the first place a good learner is of more moment than a good teacher. As the years have passed over me, I have become more and more inclined to the view that the best learning is that which a man gathers for himself, with willingness and pleasure, and the worst is that which is drilled into him by his teachers. And this is essentially true of medicine, which is the noblest of trainings, but the worst of "crams." So that the best system is that which quickens most and hinders least the desire of the pupil to learn, whilst of teachers he is the best who most excites that desire. And as no one can excite it but he who has felt it himself, so no one can teach a science but he who has studied it fully and lovingly. Therefore when we are canvassing the merits of these two systems, the question we should ask is not whether the teacher is an expert or not, for an amateur may love his subject as well as, if not better, than an expert, but whether he has enough interest in it to quicken his pupils therewithal. Or is he only doing journeyman's work for the wages that shall fall to him? Born teachers are rare, and we ought, by giving them due wages and due honour, to chain them to the task for which they were born. But the danger of highly remunerating the teacher is that thereby you tempt men to assume the office who have no calling for it except the calling of pounds and shillings. I think we hardly now sufficiently recognize this gift of teaching, this gift which makes its owner able to interest his pupils in the driest of subjects. I have listened to Hyrtl and Partridge in their prime, and I never left their lecture doors without feeling that the power which enabled them to hold their pupils spellbound while they quickened the dry bones of anatomy is one which of all gifts is that least honoured and recognized. Pardon an old man these digressions. To resume, a born teacher needs no competition; he is above it; and it is an ignominy to force mere crammers into rivalry with him. But real teachers, as I have said, are rare, and this fact is of itself sufficient to convince me, that the only way of vitalising the teaching in such subjects as you have mentioned is to abolish all unnecessary chairs, to reduce them in fact to such a number, that we might fairly expect to be able to fill them with men who have some inherent fitness for their office. As to competition I candidly admit my distrust of it. It is a modern idea, which, as one of you has pointed out, is constantly making unwarrantable assumptions. If you and I compete before competent judges, well and good; but how if the judges are incompetent? Were it not better for our own peace and our own culture that we had never entered into rivalry? With regard to clinical teaching the complaint is that a good teacher here may have three times too many students and a good teacher there three times too few to teach. Would competition mend this? The best solution would probably be a compromise between the systems you have severally vaunted. I would suggest, though with diffidence, that the clinical clerkships at each hospital should be thrown open to the whole of the London students, but that for clinical practice, apart from office, the students should be allotted to the different hospitals in proportion to the number of their beds. And I would further suggest that every hospital in London, from the royal foundations down to the poor law infirmaries and special hospitals, should be thrown open for clinical teaching, so that no hospital case in the whole metropolis should pass through its stage of sickness unobserved and unrecorded. Have I summed up fairly? I see that I have pleased neither. Ah! well, 'tis the best of compliments.

GENERAL CORRESPONDENCE.

THE MEMORIAL TO DR. RABBETH.

[To the Editor of the Medical Times.]

SIR,—A meeting was held this afternoon at King's College, at which many eminent members of the medical profession and other distinguished persons were present, in honour of the late Dr. Samuel Rabbeth, and I have been desired to ask your assistance in making its purpose known. A large Committee was appointed, including the Chairman and Vice-Chairman of each hospital, Sir W. Bowman, Sir W. Gull, Sir Joseph Lister, Dr. Priestley, Professors Johnson and Wood, the Rev. Dr. Stokoe, and Mr. F. J. Gant. This Committee, which will have for its Honorary President, the Archbishop of Canterbury, as visitor of the College in which Dr. Rabbeth was educated, will take into consideration the best means of commemorating the name and sacrifice of Dr. Rabbeth at the two hospitals with which he was connected, and at the University of London, of which he was a graduate. The Principal of King's College and R. Ruthven Pym, Esq., have been requested to act as Treasurers, and Messrs. Coutts and Co., have kindly consented to receive subscriptions.

I am, Sir, yours &c.,
JOHN CURNOW, M.D.,
Nov. 5th, 1884. One of the Secretaries to the Fund.

[To the Editor of the Medical Times.]

SIR,—It is not a very agreeable task to set oneself up as the critic of a burst of enthusiasm when called forth in recognition of instances of self sacrifice for the good of others. Examples of this always have and always will move the human breast to its inmost depths; and the last instance exhibited by the death of Dr. Rabbeth, who well knew the great danger he was incurring, is as much entitled to admiration as any of those that have preceded it. And there has been no absence of such recognition. Proposals have been made for memorials of the occurrence, and an influential correspondent of a contemporary has even suggested that subscriptions should be raised for the foundation of a medal, to be awarded in future by the University of London. In like manner, in Paris, where several deaths have taken place from a similar cause, the Municipality has affixed tablets in memory of these sacrifices in the hospitals within which they occurred. Now, I venture to suggest that we are here getting on dangerous ground, and that our sympathies are taking a wrong direction. If in place of only expressing our mournful regret that such a calamity had taken place, we are to meet it with encomiums and recognitions, what is this but to hold it up for imitation and approval? Nay, if such occurrences were frequent, a state of opinion might come to be entertained that a medical man had not done his full duty to his patient who had not had recourse to this extreme measure. These deaths ought never occur, for no man should be called upon to lay down his life for that of his patient, even if he were sure of saving him, which, in the class of cases under consideration, is highly improbable, and those in authority should deprecate such sacrifices in place of holding them up as fitting for imitation. These young men, often possessed of great acquirements and potentiality of future utility to mankind, and having more or less of family responsibilities attaching to them, should not be stimulated into the performance of actions which no professional duty calls upon them to undertake; and that perhaps in favour of an individual whose life is of comparatively little account. The unavoidable dangers which beset the medical profession, and which are always met with courageous devotion, are surely sufficiently numerous.

I am, Sir, yours, &c.
Royal College of Surgeons of England, November 3rd. JOHN CHATTO.

INVENTIONS AND IMPROVEMENTS.

GERTRUDIS SPRING MINERAL WATER.

THE Prince de Solm's Gertrudis-spring mineral water is one of great complexity of composition; it contains about 46 grains per gallon of sodic carbonate, 71 grains of calcic carbonate, 42 grains of magnesic carbonate, 132 grains of common salt, besides salts of lithia, potassium, barium, strontium, iron, and manganese. To this list of bases must be added bromine, iodine and chlorine, the whole forming a total of some 270 grains per gallon. The water is alkaline in reaction and is well charged with carbon dioxide; its taste is similar to, but a little more agreeable than, that of seltzer water. The amount of bicarbonate of lithia in the water is sufficient to have a therapeutic action, and it seems a water likely to do good in rheumatic, gouty and dyspeptic affections. Organically the water is of considerable purity.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on October 30th, 1884, viz.:—

Daniel Henry Cullimore, M.D. Brussels; Edward Owen Daly, M.B. Oxford; Henry Maudsley, M.D. Lond.; James Oliver, M.B. Edinburgh; William Camac Wilkinson, M.B. Lond.

The following gentlemen were admitted Licentiates on October 30th, 1884, viz.:—

Daniel Elie Anderson, Robert Alexander Baillie, Herbert Bidwell, William Lyne Blight, Charles Knox Bond, George Byrne, Ralph Thomas Cann, Harry Cecil Chapman, John Hedley Crocker, Jenkin Davies, Harold Antoine Des Vœux, Domiuick Anaclete D'Monte, Charles Cartwright Ellis, Herbert Fox, Thomas Underwood Gray, Charles Thomas Griffiths, Henry Habgood, Alfred Richard Hall, Harry Harlock, Edgar Alfred Hughes, Charles Style Humphreys, Isaiah Henry Joues, Robert John Kerby, Maurice Koettlitz, Thomas George Laslett, William Leppingwell Livermore, Charles William Low, Robert Humphrey Marten, George Edward Miles, George Morgan, Philip Robert William Santi, Percy Richard Stevens, Benjamin Wilfred Thomas, Alexander Bishop Voisin, and Alfred James Weakley.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 30th, 1884:—

William Turnour Parker, 68, Lillie Road, Fulham; Charles Lane Sansom, Devonshire House, Anerley, S.E.; Edgar Brewitt Sugden, 13, Adamson Road, N.W.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW. *Triple Qualification.*—The first examinations under the Conjoint Scheme recently entered into by the above bodies, commenced at Edinburgh on the 16th ultimo, and the following gentlemen passed their First Examination:—

William Griffith Roberts, Carnarvon; Robert David Prichard, Carnarvon; Thomas Monies, India; Herbert Park Shuttleworth, London; Thomas Young, London; William Beecham, Wigan; James Mason, Arbroath; Theodosius Thompson, Belford; Walter Dowley Eddowes, Stamford; Alexander Drimmie Pithie, Aberdeen; Edward Regan Crofton, Roscommon; Robert Duckett Harman, County Down; David Lees, St. Andrews; Charles Stewart Phillips, Jamaica; Thomas Kensington James Fulton, Pondicherry; Edward Brooks, Lancashire; Maurice Michael Murphy, County Kerry; James Andrew Murray, Cork; Richard Ambler, Hemel Hempstead; Arthur Patrick Brown, Shropshire; William Walter Paterson, Inveresk; Edmund Herbert Corder, Birmingham; Thomas Augustus Davidson, County Down; George Thomas Birkett, Cumberland; James Joseph McEniry, County Waterford; Joseph McDowell, County Down; Arthur William Hogg, Middlesex; John Westwood, Birmingham; Ephraim Hilliard, County Kerry; Alexander Donald McLean, Edinburgh; Edward Faloon Hawkesworth, Cork; Francis Joseph Kenay, Calcutta; John Cotter, County Cork; William Charles Robinson, County Antrim; Thomas Bowser, Northumberland, and Ernest Rutherford Sims, Derby.

The following gentlemen passed their Second Examination, viz.:—

William John Morton, New South Wales; Peter Lynch, Victoria;

John Horatio Doake, Bucks; Thomas Young, London; William Beecham, Wigan; William Jackson Hooker Macgilvray, Glasgow; Robert Sydney Marsden, Sheffield, and Ernest Frederic Taylor, Yorkshire.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edinburgh, L.R.C.S. Edinburgh, and L.F.P. and S. Glasgow, viz.:—

George Armstrong, Edinburgh; Francisco Fernandes, Demerara; William Francis Fossman, Ontario; Clement Hope Greatorex, Madras; Thomas Theophilus Hamilton, Newry; William Henry Owen Mills, Cape Town; Thomas Young, London; Sidney Taylor Williamson, London; George de Bourboulou Watson, China, and Edward William Short, Madras.

Royal College of Physicians and Surgeons, Edinburgh. *Double Qualification.*—The following gentlemen passed their First Professional Examination during the October sittings of the Examiners, viz.:—

John Godfrey Nixon, Tralee; James William Fox, Edinburgh; Isidor Bernard Le Gentil, Mauritius; Richard Walton Long, County Cork; Moses Bernstein, Sunderland; William George Meade, County Cork; James Carnegie Figg, Boness; Hugh McCallum, Plymouth; Idriee Anni Goumany, Mauritius; George James Elliot Trotter, Durham; Montague George Robinson, Sedgebrooke; Oswald Herbert Edwards, Great Crosby, and James Wallace, Antieur.

The following gentlemen passed their Final Examination and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh, viz.:—

Henry Harris, Honolulu; John Macgregor, Perthshire; Thomas William Riee, Queen's County; Bernard Stevenson, Nottingham; William Langran, Dublin; John Jones, Anglesea; Emmanuel Portal, Mauritius; Charles Coehrane Diekson, Galashiels; James McCaull, Belfast; Charles Spurgeon Davies, Canada; William Davies, Manchester; Theophilus Edward Samuel Scholes, Jamaica; George Shepley Page, Cephalonia; Charles William Dean, Lancaster; Alfred Ernest Woodforde, London; Digby Patrick Fitzgerald Freneh, County Galway; George Arthur Herbert Woodforde, London; Montague George Robinson, Sedgebrooke; John Cram, Dollar; Arthur Fowell Turner, Wiltshire; Sewell Samuel McFarlane, Australia; Arthur Thomas White, Torquay; James Malcomson, County Down; William Hitson Clayton, Leeds; Walter Benjamin Garvin, Ceylon; John William Faweitt, Yorkshire; Ernest Black, Woolwieh; Peter Campbell, Argyllshire; James Curtin Sheehan, County Cork; Archibald Hood, Midlothian; James Innes Fullarton, Australia.

Royal College of Surgeons, Edinburgh.—During the October sittings of the Examiners, the following gentleman passed his First Professional Examination, viz.:—

Francis Philip Denman, Yorkshire.

The following gentlemen passed their Final Examination and were admitted Licentiates of the College, viz.:—

Charles Arundel Parker, Chatham; William Albert Ross, Ontario; Alexander McKillop, Ontario; Duncan Gow, Ontario; Dominick Anaelet D'Monte, Bandora; Charles Arblaster, Shrewsbury.

The following gentleman passed the First Professional Examination for the Licence in Dental Surgery, viz.:—

James Taylor, Lancashire.

The following gentleman passed the Final Examination, and was admitted L.D.S. Edinburgh, viz.:—

William Hopper Harrison, British Guiana.

Academy of Medicine of Ireland. — The second annual general meeting of the Academy of Medicine in Ireland was held in the Royal College of Surgeons, Stephen's Green, Dublin, on Friday evening, October 31st. There was a large gathering of Fellows. Dr. E. H. Bennett, President of the College of Surgeons, occupied the chair. The following officers were elected for the session 1884–5:—*President*—J. T. Banks. *General Treasurer*—Robert MacDonnell, F.R.S. *General Secretary*—Wm. Thomson. Medical Section.—*President*—F. R. Cruise, President of the King and Queen's College of Physicians. *Council*—J. Hawtrey Benson, George F. Duffey, J. Magee Finny, T. W. Grimshaw, Richard A. Hayes, Henry Kennedy, A. N. Montgomery, *Secretary*; J. W. Moore, Walter G. Smith, and H. C. Tweedy. Surgical Section.—*President*—E. H. Bennett, President of the Royal College of Surgeons. *Council*—Wm. Colles, C. Coppinger, Edward Hamilton, Edward Dillon Mapother, Edward Stamer O'Grady, W. Thornley Stoker, W. Stokes, *Secretary*; J. P. Hayes, H. R. Swanzy, and Kendal Franks. Obstetrical Section.—*President* — Lombe Atthill. *Council* — John A. Byrne, Professor Dill, Belfast; Andrew J. Horne, J. Rutherfoord Kirkpatrick, G. H. Kidd, Arthur V. Macan, Thomas More Madden, W. Cox Neville, *Secretary*; R. D. Purefoy, and Wm. J. Smyly. Pathological Section.—*President*—Arthur Wynne Foot. *Council*—Phineas S. Abraham, Wallace Beatty, A. H. Corley, Samuel Gordon, J. V. Lentaigne, T. E. Little, J. M. Purser, F. J. B. Quinlan, Wm. Stoker, and J. B. Story.

Faculty of Physicians and Surgeons of Glasgow.—At the October Annual Meeting of the Faculty the following list of office-bearers for the year was declared:—President—Dr. Andrew Fergus. Visitor—Dr. Henry Muirhead. Councillors — The President, *ex-officio*; The Visitor, *ex-officio*; The Treasurer, *ex-officio*; Dr. R. Scott Orr; Dr. Thomas Lapraik; Dr. James Christie; Dr. Robert Perry; Dr. James Morton. Board of Examiners—Dr. Alex. Lindsay, Chemistry; Dr. Hugh Miller, Midwifery; Mr. H. E. Clark, Anatomy; Dr. James Stirton, Midwifery; Dr. J. Wallace Anderson, Medicine and Materia Medica; Dr. P. A. Simpson, Medical Jurisprudence; Dr. James Dunlop, Surgery and Surgical Anatomy; Mr. David C. M'Vail, Physiology; Dr. Alexander M. Buchanan, Anatomy; Dr. H. C. Cameron, Surgery and Surgical Anatomy; Dr. William J. Fleming, Physiology; Dr. William Macewen, Surgery and Surgical Anatomy; Dr. Robert Perry, Chemistry; Dr. Samson Gemmell, Medicine and Materia Medica; Dr. Eben Duncan, Medical Jurisprudence and Hygiene. William H. Hill, Clerk; Alexander Duncan, B.A., Secretary and Librarian.

Medical Bursaries for the University of Glasgow.—Mrs. Monteath, of Glasgow, has placed in trust the sum of 1,000*l.* for the establishment of two bursaries to be awarded to students who gain the highest number of marks in the subjects of anatomy and physiology at the professional examinations in these subjects, held during the year. A bursary of the value of about 20*l.* will be awarded annually in November, and will be tenable for two years.

The Cambridge Sanitary Science Certificate.—The Syndicate appointed to superintend the examinations in State medicine have issued their tenth annual report, in which they state that fifteen candidates presented themselves for examination in the first week of the present Michaelmas term, all of them taking both parts. Thirteen were approved by the examiners, and received certificates of proficiency in sanitary science. In 1883 there were seventeen candidates, and sixteen passed the examination.

Professor Humphry.—Dr. G. M. Humphry, F.R.S. Professor of Surgery, at Cambridge, has been elected a Fellow of King's College in that university. Dr. Humphry was Professor of Anatomy from 1866 to 1883, when he resigned. On the establishment of the Professorship of Surgery in May, 1883, Dr. Humphry was elected, but at present there is no stipend attached to the Professorship. Professor Humphry is also an Honorary Fellow of Downing College.

Leeds School of Medicine.—A series of Special Clinical Lectures, at which the attendance of medical practitioners as well as students is invited, will be delivered during the ensuing winter and summer sessions, by Dr. Clifford Allbutt, Mr. Wheelhouse, and Mr. T. Pridgin Teale, at 12 o'clock noon, on the dates below specified:—November 19, 1884, Dr. Allbutt, Scrofulous Neck; December 3, 1884, Mr. Wheelhouse, Pent-up Secretions; December 17, 1884, Mr. Teale, The Surgery of Scrofulous Glands; January 7, 1885, Dr. Allbutt, Migraine; January 21, 1885, Mr. Wheelhouse, the Surgery of Epiphyses; February 4, 1885, Mr. Teale, Ether *versus* Chloroform: A word about Anæsthetics; February 18, 1885, Dr. Allbutt, Infantile Palsy; March 4, 1885, Mr. Wheelhouse, Recent Abdominal Surgery; March 18, 1885, Mr. Teale, the Sphincter and its Surgical Neglect.

Alleged Death from Over-pressure.—At a recent meeting of the Macclesfield Union Sanitary Authority, Dr. Smith, of Chelford, reported the death of a girl from alleged over-pressure at school. He stated that every time he visited her she was in a state of muttering delirium concerning school and lessons. He did not blame the teacher, but the system, urging that when a child came from school its evening hours should be spent in physical development. It was decided to send copies of Dr. Smith's

statement to the Education Department, Lord Stanley of Alderley, and Mr. Salt, M.P.

The Medico-Psychological Association. — At the quarterly meeting of this association, held at Bethlem Hospital on Wednesday, 5th November, under the presidency of Dr. Rayner, Dr. Julius Mickle exhibited cases of aneurysm, and Dr. Savage a case of localised brain disease. A paper by Mr. Bonville Fox, on Exaltation in Chronic Alcoholism, adjourned from a previous meeting, was then taken, and discussed in connection with the kindred questions of insanity arising from the use of opium and Indian hemp. Dr. Savage read a paper on Delirium Tremens, passing to mania.

The Index-Catalogue of the Library of the Surgeon-General's Office, Washington.—The fifth volume of this admirable and exhaustive publication has just been issued, supplying an enormous number of references to periodical literature, from Flaccus to Health. It is said to include 15,555 author-titles, 5,755 volumes, and 12,596 pamphlets; also 8,096 subject-titles of separate books and pamphlets, and 34,127 titles of articles in periodicals.

Malignant Pustule.—In a recent number of the *New York Medical Journal*, Dr. A. C. Griffin reports a case of malignant pustule occurring in a male, aged 35, of fair physique and a moderate drinker. While dining at a restaurant he was bitten on the left cheek by a common green-bottle or carrion fly; on the site of the bite—which was so deep as to draw blood—a pimple developed and grew so rapidly, that by the next day there was formed an indurated swelling, 25 mm. in diameter, extending through the whole thickness of the cheek, with a small, unhealthy central ulcer, and surrounded by a wide, angry, red areola. The cervical and submaxillary glands were enlarged and tender; pulse 120, temperature 103·2° F., tongue coated, violent headache, complete anorexia. The ulcer was at once cauterised with pure carbolic acid, and the patient put on full doses of quinine and alcohol. The induration increased so as to extend from lip to orbit; the sloughing also extended almost through the cheek; pain became intense, the temperature rose to 104·8°, and the prostration was extreme; by the sixth day but little hope of recovery was entertained. Aided, however, by repeated cauterizations, and free stimulation, together with quinine and morphia in large doses, the patient began to improve and ultimately got well with only a moderately sized cicatrix at the site of the ulceration. In the *Boston Medical and Surgical Journal*, for May 8th, Dr. W. S. Janney gives details of four cases of the disease. One patient, a farmer, aged 60, died 58 hours after first noticing on his right cheek a slightly painful pimple, which rapidly extended so as to involve the whole cheek, the lower jaw, the right ear, and the parotid region, nearly as far as the posterior median line of the neck. The second case was that of a healthy married lady, aged 32, living in the country, who died 72 hours after first noticing near the lower lip, on the right side, an itching papule which rapidly developed as in the preceding case. Another woman, married, aged 30, died on the fourth day after first noticing the papule on the right side of her chin; on the third day hyperæsthesia of the right side of the body was noted. A wool-merchant, aged 24, of previous good health, sought advice on account of cough, when a papule, as large as a small pea was noticed just below the right half of the lower lip. The patient had been recently handling wool, and suspicion as to the real nature of the supposed "pimple" was therefore excited. The papule developed as in the other cases; the swelling was incised, injected with pure carbolic acid, and poulticed with linseed tar and iodine. In spite of extensive sloughing about the face, the formation of an abscess in the leg, and two successive attacks (right and left) of pleuro-pneumonia, the patient, at the end of three months made a good recovery. In all these cases the medical treatment comprised quinine, ferric-perchloride, carbonate of ammonia, morphia and alcohol. In each case there appeared evidence that the disease extended through the poison being carried by the superficial lymphatics only. Four stages may be recognised:—(1) Incubation period—from a few hours to fourteen days, without prodromata. (2) The formation of papule, vesicle, and pustule, lasting from twelve to twenty-four hours. (3) The extension of the œdema and inflammation, occurring twelve hours after the formation of the pustule. (4) The stage of gangrene, occurring in from twelve to twenty-four hours later.

Sulpho-Carbol, the New Antiseptic.—M. Pierre Vigier, the able writer of the "Pharmaceutical Contributions" in the *Gazette Hebdomadaire*, giving an account (in the number for August 8) of a paper on a new antiseptic, read at the Société de Biologie, by M. Ferdinand Vigier, a *pharmacien* of Paris, observes that the fact of its author being his near relative is an additional security for his examining the pretensions of the substance to an important position. The substance in question is orthoxyphenilsulphurous acid, which may be more conveniently named *sulpho-carbol*, as more simply indicating a combination of sulphuric acid with carbolic or phenic acid. The antiseptic and antifermentative properties of this compound are remarkable, and it has the advantage over carbolic acid of being soluble in water in all proportions, and of being neither poisonous nor caustic. It is a syrupy, rose-coloured liquid, of a pungent odour, but no-wise disagreeable in solution. It is volatilized in a water-bath, and may be used for fumigation. It was discovered in 1841 by Laurent, and has since then engaged the attention of many chemists. Recently its properties have been investigated by M. F. Vigier, with the assistance and in the laboratory of M. Laborde, and its great antiseptic powers have been duly demonstrated. It may be given internally also, in syrup and water, in doses of from one to five grammes daily. Indeed, being an inoffensive product, its doses may be increased *ad libitum*, which of course is not the case with carbolic or salicylic acids.

Experiments with Typhoid Matter.—A correspondent, signing himself F. Wood, whose name however we do not find in the Medical Register, has taken the somewhat questionable course of communicating the results of his experiments to a lay paper, the *Scotsman*. A short time ago, he writes, not far removed from Penicuik, a case of sporadic typhoid fever occurred. The medical attendant, for the purpose of microscopical and chemical analysis, removed some of the dejecta. Being interested in the case, he sent me a small portion of the matter, which, from curiosity, I experimented with in the following manner, and with the following extraordinary results:—Into the jugular of a strong healthy dog I injected a minute quantity of the dejecta, with the result that in a very short time symptoms, decidedly typhoid, expressed themselves rapidly terminating fatally. From the intestines of this subject, especially near the ileo-colic valve, I scraped away a portion of the intestinal secretion. With this I experimented upon three rabbits in the following manner—Near the region of the temporal artery in subject No. 1, I injected a minute portion of a weakened solution; also into the stomach of No. 2, in the form of a pill, I passed another small portion. Both animals had been kept two days short of food, and in a temperature never less than 68° F. In subject No. 1, fæcal diarrhœa rapidly became expressed, with acute fever of the typhoid nature. Subject No. 2 showed little or no material derangement. In the small bowel of subject No. 1, I was struck by the quantity of fluid so characteristic of malignant cholera. To test this further, I procured subject No. 3, also a rabbit, which had been kept for some days in a state of semi-starvation, and in a temperature never less than 78° F., but otherwise healthy. Near the region of the trachea I injected a minute portion of this intestinal flux, removed from No. 1. In a remarkably short time fæcal diarrhœa, succeeded by distinct choleraic diarrhœa, was shown, with painful spasmodic cramps, embarrassed breathing, icy coldness over the body's surface, rapidly running into mortal collapse—the whole chain of symptoms being pronouncedly those of malignant cholera. The intestinal discharge was most markedly symptomatic, being of the flocullicated (*sic*) rice-water nature so characteristic of cholera. Without running into extreme or hasty decisions upon this matter, it does appear to me, along with many others, that cholera of the

malignant type may be developed from the septic poison of ordinary typhoid, given the conditions of a reduced state of the system with an elevation of temperature — more especially would this be the case when, under bad sanitary conditions, typhoid assumed an epidemic form; and also from the above experiments that in the lower animals, at least, cholera may be developed from the germs of typhoid without any marked transitional gradations indicating its developing course.

BISMUTH IN THE DYSENTERY OF CHILDREN.—Dr. Waxham speaks highly of the use of bismuth in rectal injection in dysentery as it greatly abridges the ordinary course of the disease. From 10 to 20 grains are administered with mucilage and water after each evacuation; and when not sufficing to control the frequent stools, a little laudanum is added.

THE RUSSIAN UNIVERSITIES.—The following are the figures relating to the Russian universities at the beginning of 1882: (1) St. Petersburg, 99 functionaries (of whom 48 were titular professors) and 2,052 students, the expenses amounting to 429,903 roubles. (2) Moscow, 103 functionaries (57 professors) 2,430 students, and 526,724 roubles expense. (3) Kiew, 105 functionaries (46 professors), 1,475 students, and 460,334 roubles. (4) Charcow, 89 functionaries (51 professors), 821 students and 367,944 roubles. (5) Kasan, 109 functionaries (47 professors), 776 students and 379,496 roubles. (6) Warsaw, 79 functionaries (45 professors), 1,003 students, and 293,106 roubles. (7) Dorpat, 65 functionaries (42 professors), 1,426 students, and 256,807 roubles. (8) Odessa, 52 functionaries (28 professors), 374 students and 252,929 roubles. There are also at the different universities from 1 to 14 per cent. of "free auditors" who are aided or supported by bursaries and subventions. The library of the Odessa University is said to contain 92,454 volumes, that of Kasan 103,170, Charcow 103,704, Kiew 145,032, Moscow 190,440, Dorpat 218,893, and Warsaw 363,250.

APPOINTMENTS.

ARMITAGE, E. H., M.R.C.S. Eng., L.R.C.P. Lond.—Resident Medical Officer to the Hulme Dispensary, *vice* J. B. Dreaper, M.R.C.S. Eng., resigned.

BROWN, WILLIAM PERRIN, L.R.C.P. and L.R.C.S. Edin., and L.S.A. Lond.—Medical Officer to the Skircoat District, Halifax Union, *vice* Mr. George Scholefield, resigned.

CÆSAR, JULIUS, L.R.C.P. and L.R.C.S. Edin., and L.S.A. Lond.—Medical Officer to the Workhouse and the Eastchurch District, Sheppey Union, *vice* Dr. Bland, resigned.

COLLIER, M. P. MAYO, M.B. Lond., F.R.C.S. Eng.—Assistant Surgeon to the North West London Hospital.

DREAPER, J. B., M.R.C.S. Eng.—Honorary Surgeon to the Hulme Dispensary, Manchester, *vice* A. J. Neale, M.B., C.M. Edin., resigned.

DURHAM, FREDERIC, M.B. Lond., F.R.C.S. Eng.—Senior Surgeon to the North West London Hospttal.

DWYER, F. C., M.D.—House Surgeon to the Mater Misericordiæ Hospital, *vice* F. J. Cruise, L.R.C.S.I., resigned.

GARMAN, JOHN COOPER, L.R.C.P. and M.R.C.S. Eng.—Medical Officer to the Brewood District, Cannock Union, *vice* Mr. C. T. Duce.

HARTRIDGE, GUSTAVUS, F.R.C.S.—Consulting Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham, *vice* Henry Power, F.R.C.S., resigned.

HAXWORTH, WALTER, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the West Breton and Crigglestone Districts, Wakefield Union, *vice* Mr. Arthur White, resigned.

HOOD, DONALD WILLIAM CHARLES, M.D. Cantab., M.R.C.P. Lond.—Senior Physician to the North West London Hospital.

JENNINGS, CHARLES EGERTON, F.R.C.S. Eng.—Assistant Surgeon to the North West London Hospital.

PEDLEY, FREDERICK NEWLAND, M.R.C.S. Eng., L.D.S.—Dental Surgeon to the North West London Hospital.

SHAW, H. C. C., M.R.C.S.—House Surgeon to the Richmond Hospital, Surrey, *vice* A. L. Copner, L.R.C.P., resigned.

SHAW, JOHN, M.D. Lond., M.R.C.P. Lond.—Senior Assistant Physician to the North-West London Hospital.

SHONE, WILLIAM JAMES, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Twelfth District, Wycombe Union, *vice* Mr. W. G. Hayden, resigned.

TOMKINS, H. H., M.R.C.S.—Assistant Medical Officer to the Gloucester County Asylum.

TREVES, EDWARD, M.R.C.S.—Additional Honorary Surgeon to the Throat and Ear Dispensary, Brighton.

WILSON, G. J. M.R.C.S., L.S.A.—House Surgeon to the Radcliffe Infirmary, Oxford.

VACANCIES.

BASFORD UNION.—Medical Officer of Health. (*For particulars see Advertisement.*)

GATESHEAD DISPENSARY.—Resident House Surgeon. Salary, £210 per annum, with apartments (without attendance), coal, gas, &c. Candidates must possess the double qualification. Applications, and copies of testimonials, to be sent to Mr. Joseph Jordan, 2, Side, Newcastle-on-Tyne, not later than November 21st.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.—Resident Medical Officer. (*For particulars see Advertisement.*)

ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD STREET, MOORFIELDS.—Assistant Surgeon. Applications and testimonials to be sent to the Secretary, on or before November 8th.

ST. ANDREW'S HOSPITAL, NORTHAMPTON.—Assistant Medical Officer of Health. (*For particulars see Advertisement.*)

THE CANCER HOSPITAL, FULHAM ROAD, BROMPTON, S.W.—Honorary Surgeon, also an Honorary Assistant Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England, and practising only as consulting surgeons. Applications, with testimonials, to be addressed to the Chairman of the Weekly Board, at the Hospital, on or before November 11th.

WATFORD UNION.—Medical Officer for the Bushey District, in succession to Mr. George Augustus Hicks, resigned. Area, 8,228 acres. Population, 6,619. Salary, £85 per annum.

DEATHS.

BARCLAY, CHARLES, Surgeon-General (retired), at Clifton, on October 26th.

BURTONSHAW, THOMAS, M.R.C.S., at 43, De Beauvoir Road, N., on October 21st, aged 32.

KAY, ALFRED, L.R.C.P., L.R.C.S., of Louth, Lincolnshire, drowned at Mablethorpe, on October 21st, aged 34.

RIMELL, T. W., Surgeon, late R.N., at 75, Eardley Crescent, South Kensington, on November 3rd, aged 64.

NOTES, QUERIES, AND REPLIES.

J. Tremearne, Esq., Creswick, Victoria, Australia.—Letter and enclosure received with thanks.

COMMUNICATIONS RECEIVED—

Sir SPENCER WELLS, Bart., London; Dr. MATTHEWS DUNCAN, London; Dr. NORMAN CHEVERS, C.I.E., London; Dr. SHELLY, Hertford; Dr. R. A. GIBBONS, London; Dr. JULIUS ALTHAUS, London; Dr. ALEXANDER MEIGHAN, Glasgow; Dr. LAWRENCE HUMPHRY, Cambridge; Messrs. JOHN HALL & Co., Stourbridge; THE SECRETARY OF THE BOARD OF MEDICAL STUDIES, UNIVERSITY OF CAMBRIDGE; THE SECRETARY OF THE METROPOLITAN ASYLUMS BOARD, London; THE REGISTRAR OF THE UNIVERSITY OF GLASGOW; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE BEDELL OF THE ROYAL COLLEGE OF PHYSICIANS, London; Mr. A. J. HARVEY, London; THE HON. SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY, London; THE SECRETARY OF THE FACULTY OF PHYSICIANS AND SURGEONS, Glasgow; OUR PARIS CORRESPONDENT; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE REGISTRAR-GENERAL FOR ENGLAND, London; THE HON. SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY, London; Dr. HOBSON, Croydon; Mr. F. T. KIRKHAM, Southampton; THE DEAN OF THE MEDICAL SCHOOL, Leeds; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE, London; THE SUPERINTENDENT OF THE GENERAL HOSPITAL, Launceston, Tasmania; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Dr. HEBB, London; THE SECRETARY OF THE EXPRESS DAIRY COMPANY, Lim., London; Dr. JOHN CHAPMAN, Paris; OUR VIENNA CORRESPONDENT; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, Edinburgh; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; THE SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; Surg.-Maj. DOBSON, Netley; THE SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Surg.-Maj. WATERS, Bombay; OUR BELFAST CORRESPONDENT; Mr. LAWSON TAIT, Birmingham; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN, London; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Dr. W. J. SPENCE, Bradford; THE SECRETARY OF THE PARKES MUSEUM, London; THE SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; OUR DUBLIN CORRESPONDENT; OUR EDINBURGH CORRESPONDENT; Dr. CURNOW, London; Dr. TIRARD, London; Dr. H. RAYNER, Hanwell, W.

BOOKS RECEIVED—

The Sanitary Chronicles of the Parish of St. Marylebone for Aug. and Sept., 1884—Infancy and Childhood, by Dr. Alice Ker—The Vivisectors' Directory, by Benjamin Bryan—Proceedings of the Society for the Study and Cure of Inebriety—Annual Report of the Gloucestershire Combined Sanitary District for the year 1883—Singular Case of Vertebral Disease, by Richard Mollenhauer, M.D.—Disorders Mistaken for Hydrophobia, by Charles W. Dulles, M.D.—Elements of Practical Medicine, by Alfred H. Carter, M.D. Lond.—Origin of Cultivated Plants, by Alphonse de Candolle—Maladies des Enfants, par le Dr. Jules Simon.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für

Klinische Medicin — Philadelphia Medical News — New York Medical Journal—New York Medical Record—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médicale—Société Médicale—Revista de Medicina—The Polyclinic—The Detroit Lancet—The Journal of Anatomy and Physiology—Edinburgh Medical Journal—The Students Journal and Hospital Gazette — The Analyst — Revista Internazionale di Medicina e Chirurgia—The Glasgow Medical Journal—Archives Générales de Médecine—The Veterinarian—The Birmingham Medical Review—The Australian Medical Journal—The Ophthalmic Review—The Westminster Review.

APPOINTMENTS FOR THE WEEK.

Friday, November 7 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

West London Medico-Chirurgical Society, 8 p.m.—Mr. Bernard Pitts, "Foreign Body in the Air-passage, Abscess of the Lung—Recovery;" Mr. Maitland Thompson, "Case of Retention (24 hours)—Catheter Fever—Death;" Mr. Noble Smith, "The Objects of the Medical Sickness, Annuity, and Life Assurance Society:" Dr. Chas. Good, "Gastric Ulcer—Rupture—Sudden Death."

Saturday, November 8.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, November 10.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London.—Dr. de Havilland Hall, on "A Case of Surgical Scarlet Fever" (postponed); Mr. Rogers-Harrison, on "A Case of Spontaneous Amputation;" Dr. Carrick, on "The Manufacture and Uses of Koumiss in Russia."

Tuesday, November 11.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Anthropological Institute of Great Britain and Ireland, 3, Hanover Square, 8 p.m.—Francis Galton, Esq., F.R.S., on "The Anthropometric Laboratory at the late Health Exhibition;" H. O. Forbes, Esq., F.Z.S., "Ethnological Notes on the People of the Island of Buru."

Royal Medical and Chirurgical Society, 8.30 p.m.—Dr. Champneys, on "Expiratory Emphysema, that is, Emphysema of the Neck, occurring during Labour and during Violent Expiratory Efforts; an Experimental Enquiry."

Wednesday, November 12.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, 8 p.m.—The President will deliver an Inaugural Address on "Certain Rare Epidemics and Endemics."

Hunterian Society, 7.30 p.m.—Dr. Collie, "Observations on the Diagnosis of Small-pox;" Dr. Turner, on "Case of Suppuration of Simple Fracture of Rib, with remarks on the Ætiology of Inflammation." Council at 8 p.m.

Royal Microscopical Society, King's College, W.C., 8 p.m.—G. Massee, on "Life History of Milowia Nivea;" Prof. F. Jeffrey Bell, on "Structural Characters of Spines of Echinoidea, 1.—Cidaridæ;" T. B. Rosseter, on "the Gizzard of Larva of Corethra Plumicornis;" Dr. J. D. Cox, on "Structure of the Diatom Valve;" Lewis Wright, on "New Lantern Microscope."

Thursday, November 13.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Ophthalmological Society of the United Kingdom, 9 p.m.—Bowman Lecture by Jonathan Hutchinson, F.R.S., on "Diseases of the Eye in Relation to Gout."

Parkes Museum, 74A, Margaret Street, Regent Street, 8 p.m.—G. J. Symons, F.R.S., on "Meteorology and Hygiene." The Chair will be taken by Capt. Douglas Galton, R.E., C.B., D.C.L., F.R.S.

Friday, November 14.

Clinical Society of London.—Dr. Stephen Mackenzie, on "Cases of Dysentery treated by Voluminous Injections of Nitrate of Silver;" Mr. Morrant Baker, on "Three Cases of Joint Disease in connection with Locomotor Ataxy;" Dr. H. B. Donkin, on "A Case of Muscular Atrophy and Joint Disease;" Dr. Hale White, on "A Case of Tumour of the Frontal Lobe with very few Symptoms." Living specimens—"A Case of Favus," by Mr. Malcolm Morris; "Cases of Joint Diseases," illustrating Mr. Baker's and Dr. Donkin's papers will be present, and perhaps others.

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The Medical Times *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

SUMMARY OF CONTENTS, NOVEMBER 1.

MEDICAL TIMES

AND GAZETTE.

No. 1794. LONDON, SATURDAY, NOVEMBER 15, 1884.

Contents.

CLINICAL LECTURES ON THE DISEASES OF WOMEN.

By J. MATTHEWS DUNCAN, M.D., F.R.S.

Physician Accoucheur to St. Bartholomew's Hospital.

I.—*On Lupus of the Pudendum.*

SEVERAL times in the course of these lectures I have introduced to you this remarkable disease, when speaking of vaginismus, of vaginitis, of irritable bladder; and now I devote an hour to it. The pictures on the table show you, at a glance, how various are the appearances in different cases, and yet you will easily discover how much the group of pictures of lupus differs from the group of pictures of epithelioma and carcinoma of the same parts. There is much mutual resemblance of this lupus and that of other parts, but I do not tell you that they are pathologically the same, as is generally believed.

The disease affects women chiefly during the child-bearing period of life. I have seen it in a child, but at that age it is extremely rare, and I may interpolate the remark that it does not occur in males, or, at least, is very rare in that sex. The disease is generally said to be very uncommon even in women, but that is not my opinion; we are seldom without several cases in "Martha" during a session.

We have been in the habit of speaking of cases that are in measurement small, as instances of lupus minimus; and of cases with great measurements, either of hypertrophy or of destruction, as cases of lupus maximus; and it is curious that we have never observed a case of the former to grow into one of the latter, or *vice versâ*. The case, for instance, that I described in my lecture on vaginismus, was for six years under observation and to the end it was one of lupus minimus. Little ulcers healed up, little ulcers came; a urethral caruncle appeared; the hymen became indurated and had little nodules on it; but after all it was always minimus. On the other hand, our most monstrous case, nine, or more strictly three, years under observation, has improved considerably, but has not in dimensions undergone much change. We have no good account of it as at one time minimus. I have, indeed, never had the good fortune to see a case grow from being minimus to being maximus; yet such growth must take place.

A case of lupus minimus may very naturally be classed, on superficial examination, with urethral caruncle, or eczema of the vestibule, or pruritus pudendi. A case of lupus maximus may be taken for one of tertiary syphilis, or of elephantiasis, or of cancer. Cancer is easily distinguished; and we have taken special care, in all our recent cases, to look for and consider any indications of syphilitic taint. I have no doubt that the

alleged rarity of the disease is to be accounted for by the mistakes I have referred to.

Lupus of the female genital organs is best known as a disease of the pudendum and neighbouring parts; and these are really far most frequently its seat, but it may spread over the adjacent parts of the thighs and the hips. It may attack the vagina and the urethra and rectum; it may attack the cervix and body of the uterus. I do not know of its affecting the tubes.

It is interesting to notice that the face and the pudendum in women are the favourite seats of this kind of disease; and any one familiar with the appearances in the face recognises some degree of similarity in cases of the disease in the pudendum. There are, so far as my observation goes, no tubercles to be seen in the pudendal disease. Why this should be so I cannot say. The moisture of the vulva may transform little tubercles into the little red spots seen there; but the disease affects parts of the pudendum that are not kept moist, and there I have not noticed tubercles.

The cases have a general outward similarity which has been recognised by many visitors to "Martha"; and there is a uniformity of structure as revealed by the microscope—no new or specific elements being found, but the presence of young or growing fibrous tissue with many leucocytes, these often grouped around the vessels. I pretend to no histological authority, and merely tell you what Dr. Thin has told me, after having examined many specimens sent to him from "Martha,"—that the disease is histologically unlike ordinary lupus, the morbid structure being diffused in the affected parts, not occurring in nodules or tubercles. Whilst in ordinary lupus the cells undergo a series of retrogressive changes, in the disease of the pudendum the cells are found either as simple white blood cells or as connective cells in various stages of development. In ordinary lupus the distinctive cells are associated essentially with destruction of fibrous tissue; in the pudendal disease they are associated with the formation of fibrous tissue. The disease has been said to have alliance with scrofula; but I have failed to trace, clinically, any such connection. No doubt in some cases it is a syphilitic disease, but this complication we have done our best to exclude from the cases which form the groundwork of description here. We have, indeed, only very rarely met with evidence of syphilitic taint. The women affected are often of fine healthy even blooming appearance. The disease has a peculiar history and such extraordinary changes or transformations as to separate it from every other.

This lupus is characterised by ulceration, lupus ulcerosus; by destructive ulceration, lupus exedens; by hypertrophy, lupus hypertrophicus. There may be no hypertrophy in one case and in another there may be no ulceration, or such destruction as is implied by exedens. I have never seen great hypertrophy without some ulceration, but often without marked destruction of parts; ulceration and ulcerative destruction without hypertrophy is not rare. Besides, you have discolouration often, and often inflammation of the affected parts, and of the neighbouring organs—the urethra, the bladder, the vagina, and the rectum. We had a case in which there was inflammation and stricture of each of the three passages.

The disease gets its name (lupus) from the ulcerative destruction which it frequently causes. The ulcers, whether exedent or not, secrete pus copiously, sometimes laudable pus, sometimes thin and watery. They may affect hypertrophied parts and have no destructive quality. They may cover a great area, the extent not being discovered until the parts are unfolded. They may burrow and be like abscesses, having small openings; or they may burrow far and wide, and form large empty caverns with large openings, potential caverns, for the sides mutually touch. They may be numerous. They may heal altogether or only in parts. They may bleed copiously. Their occasional gnawing quality is often wonderfully displayed in destruction, which may remove the whole ano-perinæal region, including the viscera there—the urethra, vagina, and rectum. When the uterus is affected the peritonæum may be perforated. In lupus minimus there may be only little red pin-head spots, which change, healing and re-appearing as months go on; or there may be a small scarcely ulcerated reddish patch; or a little ulcer on a urethral caruncular hypertrophy, or on a coriander seed hypertrophy on the hymen, or near it.

The hypertrophies vary as much as the ulcerations. I have never seen them so great in lupus of the face, or of any other part of the body. When great they are generally ulcerated and generally on their inner sides, or where they are in contact with other parts. Sometimes the hypertrophy of a nympha or of a labium majus, or of both, has no morbid appearance or feeling except size. The same is true of the masses sometimes observed around the anus. In the case of lupus minimus so often referred to, the left nympha was, at the end of six years, unexpectedly found in this state. It presented, on histological examination, nothing peculiar, and we would not have known it was diseased, had we not seen it previously like its neighbour, and now four times as big. Sometimes, as in one of our hæmorrhagic cases, there seems to be a new development of nympha, that part not terminating at the side of the vaginal orifice but encircling it posteriorly in a copious frilled healthy-like fold. The hypertrophy may extend over the hip with or without deforming it. It may, in the pudendum, result in the production of large irregularly lobed projecting masses. In one case we had a fantastic appearance, which I show you, several rounded white masses hanging suspended by long threadlike white stalks. A large hypertrophy is generally ulcerated somewhere, but I have never seen it destroyed by such ulceration or removed. There is no doubt that, in many cases, the urethral caruncle is merely one of these hypertrophies.

The colouration of ulcerated parts is always red, more or less pale, or more or less deep. Other parts may have a natural brownish or red tint, or may be deep red, especially if inflamed, or they may be pearly or ivory white.

Inflammation, as I have already said, is not uncommon, more common in the neighbouring mucous tracts than in the ulcerated and hypertrophied parts. In the mucous tracts the colouration is deep red, and the secretion of pus is copious. The inflammation frequently leads to stricture. Adjacent parts of skin, as between the hips, are sometimes intensely and chronically inflamed, copiously secreting pus, and this without any distinct ulceration, only a scarcely raw redness without defined edges.

The disease is often marvellously without symptoms, only the inconvenience of the hypertrophy or of the discharge, or of both. A woman with extensive ulceration may think she has only whites, and cohabit, and bear children; or she may not suspect she has any special disease till she is seized with copious hæmorrhage. But there are other cases where, without inflammation, and generally in minimus cases, the sensitiveness is extreme, and this great difference in cases has made me doubt the identity of the disease in them. When there is inflammation, the inguinal glands may be affected, and they may, though rarely, be affected without inflammation. Of course, when parts are inflamed we have the usual symptoms of that condition.

From cancer the disease is easily distinguished

histologically; but without resort to that evidence, you will know the malignant affection by its appearance, its history, and by the early enlargement of the inguinal glands if it affects the vulva. If the disease is altogether internal, you may have great difficulty in diagnosis.

Elephantiasis is a disease affecting the clitoris or labia only, a great hypertrophy of slow growth, sometimes curiously and regularly nodulated, as in this specimen, without the exedent ulceration of lupus. It is also distinguished by histological characters. I know little of it, for it is rarely seen in these countries.

There is a sort of elephantiasis seen in tertiary syphilis, of which I know very little. In cases I have seen the hypertrophy has been considerable, not at all like that of this lupus, nor like the enormous growths of elephantiasis. It is of a uniform dull leaden red colour, generally smooth on the surface, sometimes superficially ulcerated in mutually touching surfaces, sometimes fenestrated, and the inguinal glands are affected.

As the lupus varies in its characters with the lapse of time, so it is natural to expect that it should be regarded as amenable to treatment; and, no doubt, great gain may come from treatment, especially surgical interference. This consists in removing hypertrophic masses, and in cauterising ulcerations; and both these operations are best done by actual cautery; and when the galvano-caustic is available, I prefer it. I do not say you cure the disease by this means, but you have seen cases of great extent and severity very greatly ameliorated by it, the women going away believing themselves cured.

The mucous membrane inflammations are treated just as such inflammations are treated in other circumstances, but we have learnt to attach special value to mercurials, using chiefly the lotio nigra as a wash, or applied in strips of lint. Under favourable circumstances and treatment, it is interesting to notice the softening or even disappearance of strictures caused by these inflammations.

Constitutional treatment is not to be neglected. Regulation and maintenance of general health, the use of cod liver oil, of arsenic, and of iron.

Lupus is not a fatal disease, and few autopsies are recorded. They have as yet added nothing to our knowledge of the specialties of the affection.

THE REVIVAL OF OVARIOTOMY, AND ITS INFLUENCE ON MODERN SURGERY.[1]

By SIR SPENCER WELLS, Bart.,
Late President of the Royal College of Surgeons of England.

(*Concluded from page* 642.)

In asking you to consider the influence which the revival of ovariotomy has had upon modern surgery, I think we may not only assume the revival as complete by the year 1865, but that, in the words of Paget, "the influence for good was not limited by the increased success of ovariotomy, but extended to every department of operative surgery, and will always continue to be felt in the whole practice of surgery." And the rapidity with which the success of ovariotomy led, again using Paget's words, to "an extension of the whole domain of peritonæal surgery," is not less remarkable than the rapidity with which ovariotomy had advanced in professional opinion between 1858 and 1865. The first extension naturally enough was to the

Removal of Uterine Tumours.

At first, this was only done after a mistaken diagnosis. But before many years had passed it was done designedly, at first only in cases of pedunculated subperitonæal outgrowths; but latterly, under conditions most favourable, success has been obtained in a proportion of cases very surprising even to those who in their long experience have many times been astonished at their own success. Nothing in the whole history of surgery can be at the same time so gratifying and so astounding as the records of Keith's later cases of the removal of uterine tumours, collected and published by his son. Taken alone, they would almost justify a general law to the effect that no woman should be allowed to die of any innocent uterine growth without attempt to save her life by operation being made. When the earlier cases of Kœberlé were criticised in the French Academy by Boinet, Richet cautioned the audience against summary condemnation of an operation not dreaded more than ovariotomy was not long before. The question since that day has been decided by experience, and if a word of caution is now needed, it is only to warn surgeons of the future that they cannot hope for success unless they prepare themselves for operation upon the living body, by taking every available opportunity of practising upon the dead body, and by a conscientious determination to study rather the true welfare of the patient than, on the one hand, how to avoid responsibility, or, on the other hand, how to advance their own renown.

It is fortunate that in some of these cases of uterine tumour an alternative proposal ought to be considered. Both ovaries may be removed with the knowledge that this proceeding has been followed by atrophy of the uterine growth. This, on the part of Hegar, was the legitimate application of a principle, and the practice has often proved successful. In cases where removal of the tumour would have been impossible or exceedingly dangerous, removal of the ovaries and Fallopian tubes has led—with far less risk—to cessation of bleeding and more or less diminution of the morbid growth. But we must have further experience before we can arrive at a fair estimate of the relative value of the two courses of action. We have learned, however, that if the ovaries are not completely cleared away—if, having been adherent, they have been twisted or scraped away from their connections, and some small portions left—menstruation may afterwards recur quite regularly, even though both Fallopian tubes have been totally removed. I have more than once warned the profession against the capricious extirpation of the ovaries, because they are supposed to be the source of all womanly ills, and I repeat my caution, seeing to what wide-spreading evils its neglect may lead. I think it a charity to lay a checking hand on an erring judgment before it has gone too far, and I would fain save our profession from the public odium which must sooner or later be the penalty suffered by all, if a few indiscreet members of our body act without general sanction, or disregard general disapproval.

I have not time to enter upon the very important question of the excision of the entire uterus, either by the vagina or by abdominal section, nor of that substitute for the Cæsarean section known as Porro's operation, nor of the operative treatment of extra-uterine fœtation; and can only say a very few words about the next kind of abdominal tumour, the removal of which followed the ovarian and uterine—

The Enlarged Spleen.

I did not meet with a case which I thought justified the operation until 1865, although I had long before

[1] Inaugural Address of the Session 1884 of the Midland Medical Society, delivered at Birmingham, November 5th, 1884.

that been determined to do it in any suitable case. My second case was performed in this town, and I have only met with one since. I need not tell you that the example has been frequently followed by other surgeons, and there is every reason to hope that increased experience may be followed by diminished mortality.

And so with

Renal and Peri-renal Tumours.

Nephrotomy, nephro-lithotomy, pyelo-lithotomy, and nephrectomy, terms hardly entering into surgical literature twenty years ago, define operations which are now performed in increasing numbers, and especially to the physiologist, with a wonderful success. My colleague, Knowsley Thornton, can boast of ten nephrectomies, all by abdominal section, as well as four nephrotomies and three nephro-lithotomies—the whole seventeen cases successful. These cases, and seven successful cases of pyelo-lithotomy out of eight, as lately recorded by Anderson, can only be the effect of rigidly abiding by the observance of what we now know to be the rule and criterion of good work. So also with a variety of solid and semi-solid abdominal tumours, originating in the pelvic cellular tissue, or in the peri-renal fat, or in the mesentery, the appendices epiploicæ, the omentum, or the abdominal wall, extirpation is effected with a loss of life so small as would have been almost incredible a few years ago.

Already in several cases tumours formed by peritonæal hydatids have been successfully removed. I have not time to do more than barely allude to opening of the gall-bladder and the removal of gall-stones, the opening and draining of hepatic abscesses, of hydatid cysts of the liver, of pelvic abscesses, and of hæmatocele, to removal of the pylorus, gastrostomy, and opening the stomach and removing a large mass of hair. In one remarkable case Mr. Thornton removed a mass of hair weighing two pounds, which was moulded into the shape of the stomach. The incision across the greater curvature was five inches long, and fifteen deep, and fifteen peritonæal sutures were required to close it. The abdomen was closed, and the patient is perfectly well. Ten years ago such an account would hardly have been believed. With the exception of this and one successful case by Schönborn, in all other reported cases such masses of hair in the human stomach have only been found after death. But no one who has watched the progress of these operations, has considered the causes of death in fatal cases, and the details of the operative proceedings in successful ones, can come to any other conclusion than that one important element in the attainment of success is the scrupulous observance of the principles laid down as necessary to success in ovariotomy—not only as regards the hygienic precautions never omitted in modern surgery, but especially as to the importance of a very accurate and exact union, not only of the edges, but of the peritonæal surfaces of the viscera and of the abdominal wall. In gastrostomy, for instance, it is found that when the stomach is attached to the abdominal wall by a single ring of sutures, the weak attachment may give way, and risk of extravasation into the peritonæal cavity may be great. But when, after dividing the abdominal wall, the parietal peritonæum is sewn to the skin all round the opening, a broad surface of visceral and parietal peritonæum may afterwards be maintained in contact by a circle of sutures, forming loops, passed through the peritonæal coat of the protruding portion of stomach, and through the whole thickness of the abdominal wall, about half an inch from the edge of the incision. Smaller fine sutures being inserted between the larger ones, a very close and secure attachment of the stomach to the peritonæal lined opening in the abdominal wall, and complete occlusion of the peritonæal cavity are guaranteed. This done, we have an example of the carrying out in its integrity of one of the fundamental rules of practice in the operation of ovariotomy as regards the peritonæum—surface to surface, not edge to edge merely—and it is a fact not to be overlooked that in gastrostomy the result of the operation seems to depend upon it; the rule being that the cases in which it has been neglected fail, while those in which it is observed end satisfactorily. Thus the lessons learnt at an early stage of our experience in one operation have been the means of leading directly to the successful performance of the other.

This tracking of Paget's extension of the "domain of peritonæal surgery" has carried us a long way, and perhaps those who have entered upon their career at a late stage of the successive annexations may find it not easy to understand the fascination which the subject has for their precursors, who remember its dawning, who were pioneers in realising possibility, and who now live and are still pressing forward to the ever-receding horizon before us. Far as we have come on the way, and much as we have done, there is more to do and more to gain. If formerly we plumed ourselves on our triumphs over the peritonæum—or rather, as it really was, over our fears of the peritonæum—upon our ovarian, uterine, renal, and splenic victories, and put up trophies of all those organs in our museums, we now see our way to new conquests. In proof of this it is a satisfaction to refer to a series of cases and papers in some of the very latest English and foreign medical journals, showing how much more frequently than heretofore obstruction of the intestines is now successfully treated by operation, and that excision of the pylorus, and of parts of the intestines, is already a subject of careful experiment. This is directly traceable to ovariotomy, for one of the very earliest cases was my own union of the upper and lower ends after removing about three inches of small intestine invaded by cancer from an ovarian tumour. In Treves's paper on Excision of Intestine, you will see how firmly an operator of to-day is taking his stand on the true principles of abdominal surgery which we have watched emerging from their obscurity. He does not ignore the teachings from experiments upon animals. He supports himself by the nine successful resections of lengths of the intestines of animals made by Madelung. He traces the failures in many operations of the same kind on the human subject to faults in the details, such as want of perfect adaptation and insufficiency of sutures. And he lays down as rules for his own action that he must separate the peritonæum from the other tissues and introduce abundance of sutures after Lembert's method—bringing the two serous surfaces together, and avoiding the mucous membrane with the needle. A recent paper by Reichel informs us that already 121 cases of resection of intestine have been collected, the conclusion being that the two ends of the bowel should *not* be united at the time of the resection, but that an artificial anus should be established. This can be closed by a subsequent operation. You will probably soon see a report of a case not yet published, where Mr. Jessop, of Leeds, cured a fæcal fistula by separating the injured intestine from the abdominal wall, and uniting the upper and lower parts of the gut by suture. What I said with regard to practice on the dead body before operating on living women afflicted by uterine tumours is equally applicable to the resection of intestine. But here practice on the dead is not sufficient, and if we are not allowed to experiment on living animals in this country, we must either go abroad or practice on men and women. At my request a young surgeon, Mr. Jennings, from whom I hope and expect great things in the future, has recently cut away portions of intestines of dogs, uni-

ting the upper and lower parts so as to maintain the continuity of the canal. Some of the preparations may be seen in our College Museum, and they strongly confirm the conclusion that success depends upon complete union of the apposed serous surfaces.

If I were reviewing modern surgery in general, and not limiting myself to the influence upon it of the revival of ovariotomy, I should speak hopefully of pulmonary surgery, of the draining of cavities in the lung, of incising gangrenous lung, of resection of portions of ribs to obtain contraction and closure of the pleural cavity, and of excision of parts of the lungs, or of an entire lung—even of the surgical treatment of purulent pericarditis. But these are subjects to which I can barely allude as proofs that we do not yet know how far we may go with rational surgery, or what may be in store hereafter for surgical enterprise.

But while we modern surgeons congratulate our science on its liberation from the trammels of tradition; upon its working in an atmosphere cleared of the mist of superstition; upon the changing of its mode of action from a blind grappling with the phantom entities of disease to a study and manipulation of over-nourished or degenerating tissues; upon its having laws which can be understood, and rules of practice which can be followed, we ought not to overlook one fact, which perhaps is more evident to outsiders than to ourselves, standing as we do in the dust and turmoil of the arena of our work. I mean that that work, good and useful as it is, has too much the character of what is technically called "salvaging"—is too much in correlation with what is done by the lifeboat service. Is it there that we ought to stop? I know that we are gradually drawing on beyond that point, and that our investigations are turning in the direction of sources, causes, means of prevention, and outlets for avoidance. But before we can reach the same level of achievement in preventive medicine that we have arrived at in operative surgery—before we can arrest the formation of ovarian cysts instead of excising them—we must know and understand what we have to deal with. We must master the problems presented to us by the erratic developments and mortal decadences of the tissues and organs which we are now content to clear away. And we ought to have the means of accomplishing this task on a scale commensurate with the importance of the subject of pathology—the professional desire for original research—and the dignity of the College of which we are members.

Most of the University cities on the Continent have made provision for this necessity, with such a liberality and profusion of accommodation that the prosecutors of these studies are there at a great advantage. I have visited some of these establishments, and have been able to make comparisons which cause me to regret that so little of the like kind has been done here, and that we have been content to leave a matter which really touches the honour of the profession, and is of national concern, to almost unaided personal zeal and efforts. In England the jesting phrase that "science does not pay" is so common that we scarcely feel the reproach. The history of medical science gives us many instances of unfairly remunerated men (W. Farr, for example), and of the appropriation of the profits of their applied work, and it would be well if the authorities of our profession took the lead in forming an organisation which should aid the modest labourers of its foundations, protect their interests, and reward their industry. I have long desired to see this done by our College, and the munificent bequest of Erasmus Wilson, a man who estimated the value of money by the good that it could be made to do, now puts it in the power of the College of Surgeons to out-rival all other corporations, by setting up round the nucleus which Hunter left the most elaborate combination of all the means and appliances for physiological and pathological research, by concentrating the intellectual power which now runs to waste or is diverted to personal interests, and by guiding and directing all that can be done to the advancement of the purely scientific progress of medicine and science.

Last winter I was away from London for about six weeks. While staying at Würtzburg and Munich, I could note in the most recently erected pathological laboratories how far our German brethren are in advance of anything which I, at least, have seen in this country. At Rome again, and at Naples, I was both pleased and surprised to find how much our Italian brethren were doing. And during the meeting of the Medical Congress at Copenhagen, I was shown arrangements for the study and cultivation of micro-organisms, quite as complete as those which many of you may have inspected at the temporary rooms of the Health Exhibition in London, under the able and instructive guidance of Mr. Watson Cheyne. Now one may fairly ask why provision cannot be made to ensure the continuance of this work, and its extension, in a better and permanent abode?

Something of the kind I hope to see in Lincoln's Inn Fields. I concur completely in the project to make such additions to our noble building as our Council have long felt to be an absolute necessity, and for which they have already considered plans prepared by the eminent architect, Mr. Waterhouse. These constructions are intended to furnish better and more convenient arrangements for the examinations for our diplomas, to guarantee the uninterrupted use of the library, and to give us further facilities for the promulgation of the higher truths of surgical science. Unquestionably this will be in some degree a credit to our College and to British surgery. But I hope I shall not be misunderstood. I have no wish whatever to add to the duties of our College as a teaching institution. We are an examining body, acting for the protection of the public by testing the success of the teaching in the schools and hospitals, and vouching for the competence of our candidates for their calling, after proving to us that they have gone through the course of study we prescribe and possess the average skill and knowledge necessary to meet all the usual demands of practice. Perhaps, hereafter, we may take the higher position of sitting simply as a court of judgment upon the qualifications of those who present themselves for our diploma, irrespective of the mode and time and place in which their knowledge has been acquired—putting aside all interference with the routine and details of the course of study.

But I aspire to something more than success in securing the requisite skill in practical surgery in those who disperse themselves among the people as practitioners under our warrant and authority. I trust that we may go further; and, no longer trammelled by State interference and sensational clamour, that we may accomplish that which such men as are on our Council would probably have done long ago, had it not been for the restrictions placed upon them by financial considerations. Now the funds at their command give ample means for the carrying out of any schemes which the most enthusiastic devotee of original research could, in his most sanguine dreams, imagine. My ambition is that we should not merely be the source of honour to students, and the directors and approvers of schools and teachers, but that we should become the centre of medical research, the mainspring of all the developments of medical science. And now that we can do it, why should we not do it? Why should we not have buildings and accessories, imposing in their grandeur and adequate in their accommodation, laboratories, complete in their fittings, instruments and

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materials, rooms for conferences, and proper places for the storing of records and results? Why should not our Fellows and Members who are moved with the desire to advance medicine and surgery, by enquiry and experiment, be presented with as great facilities as are to be found in any continental city or university —such as are so profitably enjoyed by Pasteur, Ranvier, Brown Séquard, and their colleagues and assistants—advantages hitherto unapproached on this side of the Channel, but which our transatlantic brethren are not slow to emulate? I feel that to support the honour of our profession, to fulfil our duties as the representatives of surgical science, justly to carry out the intentions of our late president and benefactor, we ought to be magnificent in architectural and constructive outlay, active in personal work, and liberal in the encouragement and help we proffer to those who come to make use of the opportunities which our College will give and promote the object for which we are all so deeply concerned and so heavily responsible.

I am encouraged to augur the completion of such a scheme as this for rendering original investigation in the future infinitely more easy, precise, and valuable than the surgeons of the past ever hoped for, and to believe in the accomplishment of its designs, when I think that the will of such meetings as this must be obeyed, and feel the conviction that the men of Birmingham will be among the first to avail themselves of it.

I have spoken to you of the past and the present. The future is in your hands; and I appeal to you as men typical of the thought and action of the profession, actuated by the highest moral sentiments, seeking and mutually guarding your honour as a body—chasing out, with instinctive repugnance, that which, ignominious in principle or practice, has accidentally intruded itself among you, and conscious that—by assuming the highest functions of your calling, in the investigation of national interests, in the promotion of public good by giving counsel to princes and legislators, by such a devotion of your energies, by such a sacrifice of personal consideration as is involved in bettering the condition of the people, in shielding them from disease, and in the prolongation of their healthy lives—you will add lustre and dignity to the private confidence, gratitude, and sympathy which the profession has already gained by its power over actual suffering and sickness, and by the skill, conscientious vigilance, and humane tenderness with which you make that power manifest.

"I speak as unto wise men, judge ye what I say."

ON SOME RARE EPIDEMICS AND ENDEMICS.[1]

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Society and of the Health Department of the Social Science Association.

GENTLEMEN,—Since we last assembled in this place, death has taken from our association one who, although younger than most of us, was second to none as a man of science. The daily business of the life of John Netten Radcliffe was epidemiology, and when that life closed prematurely a few weeks ago, there was not in Christendom any investigator of disease to whom the title of "epidemiologist" was more justly due than it was to our late esteemed and lamented fellow-workman, an enquirer as honest as he was able, upon whose brief and by no means painless mundane existence the divine light of truth was bountifully shed.

Considering how few and brief our meetings are, I, at the opening of last session, submitted to you for discussion an epidemiological subject, as being more in accordance with the great objects of our society than an ordinary "presidential address," dealing with unpractical generalities.

I, however, have nothing to communicate didactically. As a seeker for knowledge, I lay before you a few somewhat obscure points in epidemiology which, I doubt not, it is within your power to elucidate.

I happened lately to meet with a citation of the following passage from the "Chronicon Angliæ Petriburgense," recording that, in the year 987, "*duæ pestes mortiferæ, Anglis antea ignotæ, Angliam invadunt; febris quædam et morbus, quem scitam*[2] *dicunt.*"

Without pausing to enquire how far the leech-craft lore of that early age was fully competent to decide whether the type of an epidemic was or was not absolutely new or old (seeing that we of the present day occasionally puzzle greatly over such questions), I, having lived at a time when the enteric fever of Jenner was not common in England, and when diphtheria was of rare occurrence in this country, India, and Australia, venture to think that you may not be unwilling to devote a little attention this evening to the consideration of certain epidemic and endemic diseases which are either positively of rare occurrence, or are, as appears more probable, so irregularly distributed over the earth's surface, and so uncertainly fluctuating in their occupation and transgression of their proper areas, and so changeful in their types as to appear new to the ordinary observer, and often to lead men of travel and reading to hesitate in declaring that they are old.

We may be led to call any given outbreak of disease which appears unusual to us "rare," (1) because we are imperfectly acquainted with the geographical distribution of disease. Thus, in a given case, upon our remark, "this type of disease is perfectly new to me," an American or Indian practitioner may say, "this is pernicious fever, with which I am well acquainted." (2) Few observers live long enough to see disease in all its constantly varying types. If London practitioners could now see the type of maculated typhus, with lung complication, which prevailed in this city in one of my years of studentship, they would doubtless call it "rare." Truly it was a rare type of that which was then one of the commonest diseases of these islands, but which is now far less prevalent. (3) Or again, it is within the range of possibility that there should occur any day in our midst an outbreak of disease, regarding the type of which many practical men might be quite at fault, until they were told by one who had lately read Hecker, "this is a re-appearance of the Black Death, which killed fifty thousand persons in London in the year 1347."

I think that I do not claim too much for the Epidemiological Society when I say that, constituted as it is of men who have studied disease in all its modern phases in every quarter of the globe, and who, in the library and in intercourse with their professional brethren, have made it the subject of life-long enquiry, it is at these serious but most friendly and pleasant conferences that the very fullest light may probably be thrown upon whatever still appears to be novel or rare in the characters of epidemic and endemic disease.

Bear with me while I lay before you, in the form of questions, the following subjects for discussion.

In his recently published invaluable work] "An

[1] Inaugural Address delivered before the Epidemiological Society at the opening of the Session, 1884–1885, November 12th, 1884.

[2] The name of this disease survives in the English vernacular. A looseness which is very prevalent among cattle in Natal is called "Skitters."

Epitome of Reports of Medical Officers of the Chinese Customs Service,"[3] our friend Dr. Gordon cites the following report :—"At Newchwang, during the winter of 1880–81, quinsy attacked nearly every foreign adult in the settlement. The majority of the patients had more than one attack ; in some instances the disease was very severe. The largest number of cases and the most severe occurred in the first half of the winter. After a considerable fall of snow, the cases decreased in number and severity." It is a common matter of observation that simple tonsillitis occurs epidemically. particularly in cold and damp weather, but epidemic quinsy is, I think, rare, and I seek reference to similar outbreaks.

Seventeen years ago, a healthy girl of four was brought from India to Cheltenham. Shortly after her arrival it was observed that she was jaundiced. This did not cause surprise as the season was very chill, and she had suffered much from heat and fatigue on the homeward route. It was then noticed that her brother, an equally healthy child, three years her senior, who had been more than two years at home, was also jaundiced. The attacks were unattended with evidences of constitutional distress, and were very transient. I have heard of similar outbreaks of simple jaundice among the children of a neighbourhood, but would be glad to obtain further data.

I have a tolerably fair acquaintance with the history of the epidemics and endemics which have occurred in the neighbourhood of Calcutta during the last half century, but I have only heard of one extensive outbreak of inflammation of the external meatus of the ear. This occurred in the rainy season of 1857. Thousands suffered, mostly along the north bank of the Hooghly, from otorrhœa, the mischief not unfrequently involving the structures of the tympanum. Have similar endemics been observed ?

In Calcutta, boils occur much more generally in some seasons than in others ; but we usually see cases after the hottest weather. The types of furunculi do not appear to vary greatly, but only in one of my twenty-four hot seasons was there an outbreak, very prevalent among children, of livid vesicular boils about as large as peas, which burst spontaneously, and discharged an abundant damson-coloured cruor, so that the child had almost always a bloody streak down its face. Assuredly furunculus is as essentially a constitutional disease as septicæmia is ; but our knowledge of its ætiology greatly needs extension.

At Howrah, there was an endemic of mumps among the children inhabiting a row of houses fronting a partially tidal earthen ditch, into which the excreta of the large gaol were voided. Two little European brothers were attacked with exudative laryngitis [diphtheria ?]. I am aware that cases of mumps, complicated with diphtheria, have been observed, but I am still in search for detailed histories.

About twelve years ago, while residing in Calcutta, and subject to malarious asthma, I suffered occasionally from another neurosis—a moderate colicy pain in the sigmoid flexure, lasting for an hour or two. On the morning of the day preceding my departure for England, I visited my college, breakfasted comfortably at a friend's house, and ordering my carriage for a round of calls, was told that my coachman (a Mahomedan whose mode of life was as different as possible from my own) was ill. I went to the man in anger, but at once perceived that he was in great agony with colic. I said that I would give him medicine, but before I had gone up a flight of stairs I was attacked with most excruciating colic, from which I suffered for hours. I remained subject to occasional recurrences of this neurosis for about two years, but this was by far the most severe attack. I do not think that I saw a dozen cases of colic in India.

I am confident that this was no mere coincidence. I had merely looked at the man, had asked a question or two, and had turned to leave him, when the pain struck me as if I had been shot through. Had this happened to a hysterical woman, I could have better understood it; but that the nervous system of a medical man, in charge of a large hospital, should be thus sympathetic is a matter which I have hitherto entirely failed to comprehend.

In January, 1883, the inmates of my house in Bayswater were ten in number. On the first of that month I noticed a large herpetic spot on the lip of one of them. This recurred on the 27th. I was then told that a servant girl had been suddenly attacked with painful swelling of absorbent glands at the back of the neck. I found that this was caused by a large blotch of herpes just below the hair, and immediately above the upper enlarged gland. On the twentieth of that month, Dr. G. H. Savage published in the *Lancet* a report on "Herpetic Fever," as it prevailed in London. I think that this point deserves further investigation.

Some of the conditions to which I have now alluded were undoubtedly *endemics*, rare, as far as my experience and reading go, which is admittedly not very far. In the classification of the others I solicit your assistance.

With regard to manifestations of disease on a more extensive scale, some *epidemic* outbreaks may only appear to us to be rare because we are imperfectly acquainted with the epidemic history of the sites in which they occur. Thus, it has not been proved that diphtheria appeared in India earlier than 1852, or in Australia before *cir.* 1853, or that yellow fever had been seen in Montevideo previous to 1857 ; still it is quite within the range of possibility that we may yet discover musty records of the fact that these were not the first appearances of the diseases in those localities. Thus, about five years ago, we were told by a competent authority that South Africa enjoyed immunity from true enteric fever. A few months later, we learnt that our troops in the Natal field force suffered considerably from this disease ; and our friend Inspector-General Lawson has lately informed me that he has found clear evidence of the presence of this fever at the Cape in 1827.

The evidence that certain epidemic diseases are rare in particular localities is unquestionable. So it is with cholera of the Asiatic type in these islands.

The last appearances of bubonic plague in England and in Southern France were respectively in 1665 and in 1720.

There is, at present, no evidence whatever to show that Beriberi fever had even extended to Southern Bengal previously to the year 1877. We have no record of the appearance of Pali plague in the plains of India since its first recognised outbreak in the Bombay Presidency in 1815, but its congener, Mahamari, has appeared at rare intervals in the hills, and its closely allied pest, Indian relapsing fever, has, happily unfrequently, committed terrible ravages in the North Western plains.

In a recently published chapter of my work on the "Diseases of India," I showed that a wave of influenza extended from India to England between the years 1824 and 1837. I then cited[4] accounts of the influenza which occurred in 1831 in Penang and Java, and in 1834 in Calcutta.

I have since learnt[5] that this disease also prevailed on the Continent of Europe and in England in 1831 and 1833. As we have no evidence of the recurrence of grave influenza since 1834 in Calcutta and 1837 in

[3] p. 179.

[4] *Medical Times*, vol. i., for 1884, p. 761.

[5] Hecker and Gordon.

England, we may, while admitting that epidemic catarrh, which is so common nearly everywhere, is a mild type of influenza, resolve to place grave influenza among rare epidemic diseases.

There is a disease, regarding the alleged epidemicity of which I am desirous to obtain your opinions. Scorbutus is stated by Hecker to have prevailed as an epidemic, more especially in Germany, in the year 1486, and with such severe and unusual symptoms the people were inclined to regard it as a totally new malady. He cites various authorities in evidence that, on several occasions in the fifteenth and sixteenth centuries, scurvy occurred as an epidemic in Europe. All Indian authorities concur in the observation that scorbutus is constantly endemic in certain districts, especially in Scinde and Behar. Such endemicity may be accounted for upon the supposition that, in such localities, the soil and water are faulty and that the food supply is defective in anti-scorbutic constituents; but various authorities, headed by Kenneth Mackinnon, have adduced facts which go far to show that in India, at least, scorbutus occasionally presents itself as an epidemic, in localities out of the domain of endemic scurvy, quite independently of any abnormality of climate or food supply.

Additional observations upon this point will be exceedingly valuable.

In my addresses delivered at our opening meetings in 1882 and last year, I made some allusion to the occurrence of dysentery in London. I then showed that the last prevalence of dysentery here occurred between the years 1840 and 1847. The details have been recorded by Dr. Baly, and that this malady was true dysentery I had convincing evidence in my own person. The almost complete subsequent immunity of London from this disease is proved by the fact that two distinguished hospital physicians, of middle age, have lately said to me, nearly in the same words, "I have never seen a case of dysentery originating in London." Nevertheless, the Registrar-General's returns, as cited in the public prints, give us to understand that—I quote one verbatim—"119 [deaths occurred during the week ending 18th August, 1883, in London] from *diarrhœa and dysentery*." In one week in the previous month of July, the newspaper gives 351 deaths from dysentery. Making due allowance for inaccurate citation by non-professional reporters, this assertion of the occurrence of a multitude of deaths from dysentery in a city whose physicians have never seen English dysentery, appears, to say the least, rather perplexing.

Undoubtedly the Registrar-General is as wrong in massing together cases of those perfectly distinct maladies, dysentery and diarrhœa, as an ornithologist would be if he classed the owl with the sparrow. I lately spoke upon this matter to a very high non-professional authority. He said that the anomaly probably arose from a prevalence of cases of "dysenteric diarrhœa"—a disease of which I now hear for the first time, and in the existence of which, either at present or at any other time, I confidently disbelieve, diarrhœa and dysentery being two perfectly distinct entities, always to be differentiated by observing the symptoms and washing the stools. Hence I venture to offer, for an expression of your opinions and for your future investigation, the questions—Has dysentery occurred in London of late years? Does it continue to occur? And what is the true nature of the destructive malady which is spoken of as "dysenteric diarrhœa?"

Not many minutes after writing the above, a few days ago, I met with the following expressions, used by a sound pathologist in describing a case of tropical liver abscess observed in London. We are told that the man "had been suffering for some time from *diarrhœa*," [the italics are mine] "with slimy motions" . . . . "There was a return of the *dysenteric* symptoms"; the "motions were loose, slimy and contained blood." Extensive dysenteric disease of the colon was found after death. The erroneous belief in the existence of such a disease as dysenteric diarrhœa probably arises from the fact that grave dysentery is not always attended with severe pain. Hence doubtless the fact mentioned in Rymer's "Fœdera," that the English soldiers fought at Agincourt "naked from the waist downwards because of the distemper" [dysentery] "which hung upon them." Had the poor fellows suffered as much as I always did in dysentery, they could not have fought at all.

I believe that a careful search for indigenous dysentery in London and its suburbs will probably lead to the discovery of genuine cases.

A year or two ago my friend Dr. John Macpherson told me that a typical case had occurred at Forest Hill.

Having now offered you, out of an overflowing budget of ignorance, more questions than can well be answered in the few minutes which remain to us, I will merely say that I am heartily rejoiced at being allowed the great privilege of greeting you here again; and that I am confident in the hope that, in the future as in the past, our quest for scientific truth will continue to be ruled by brotherly friendship and large-minded toleration.

CHOREA AND OVER-WORK AT SCHOOL.

By F. DAWTREY DREWITT, M.A., M.D. (Oxon).

Physician to the Victoria Hospital for Children, late Resident Medical Officer, Great Ormond Street Hospital for Sick Children.

HAPPILY, there seems to be a chance of the important question of over-pressure in schools not being allowed to degenerate into a party squabble, for that would inevitably put back for some time all hope of wise legislation on the subject.

Surely, just at this time of transition in all things social and political, any sensible person would regret to see the recent Acts of Parliament on popular education seriously interfered with. Few measures of such importance, both to the State and to the individual, have been undertaken of late years, and all the talk we used to hear of education unfitting men and women for physical work in after life, fortunately seems to be dying out. The Scotch, in spite of *res angustæ domi*, have always been in advance of us in educating their poor, who are consequently more capable than ours of intelligent physical work, and seem to have more of that especially British characteristic, fitness for undertaking posts of responsibility both at home and abroad. Still, there can be no doubt that children suffer from over-work, and it is clearly the duty of the State to keep such suffering at a minimum.

Of the definite forms of illness caused by over-work, chorea seems to be the most common, and the following short histories of 25 unselected cases of chorea, all in fact that I can at present lay my hands on, and all given me by the parents themselves, are probably typical of the general run of such cases which find their way to our children's hospitals.

The first six were brought up to the Great Ormond Street Hospital for Sick Children in 1879 and 1880. The remaining nineteen have been out-patients of mine at the Victoria Hospital for Children in Chelsea, in 1882–83–84.

Phœbe B., 15, Drury Lane, aged 11, has had chorea one month. Was working hard at Board-school from 9 till 12.30 in morning, and from 2 till 4.30 in after-

noon, and 3½ hours at Sunday school. She sits up reading school books till 10 or 11 at night. Her mother has often locked up her books; she has then borrowed other girls' books.

Jane W., Hudson Road, Plumstead, aged 8, attending school; no evidence of over-work. Present attack of chorea followed a fall on the back of her head. A previous attack followed a fright; saw her brother nearly run over by a cart. Has had rheumatic fever. Mother had chorea.

Charles B., Grange Road, Bermondsey, aged 11; chorea three weeks. Mind affected; tears up books, and has painted the school fire-place with red ochre; no recollection of it afterwards. Has a great dread of school; no evidence of over-work. Boy hit him on the head just before attack. Father had chorea and rheumatic fever. Mother, rheumatic fever.

Rose S., Burlington Road, Bayswater, aged 7. "Had been attending Westbourne Park Government school; very quick in learning. Makes rhymes like a grown person; very fond of drawing; works in the evenings by her own choice." Chorea came on gradually with mental change and delusions.

Florence C., Northampton Street, Clerkenwell, aged 11. Attending school; not over-worked; was much frightened by some stories about black bogies. Chorea followed; has had rheumatic fever.

James H., Blenheim Street, Chelsea, aged 10, attending St. Luke's Schools, Chelsea, when chorea began. Work 5½ hours a-day; Sunday school 2 hours. Very fond of books; worked at home-lessons every evening, and then read other books till 9 or 10 at night; trying to pass into 4th Standard. Has had rheumatic fever. Mother, chorea and rheumatic fever.

Roger R., Malcolm Square, Chelsea, aged 11; has had general chorea 7 months; attending St. Luke's Schools, Chelsea. "He is unlike other boys, he learns without being taught; likes his lessons, and has no difficulty with them; takes his books home and works at night. He is also teaching himself music;" has had rheumatic fever.

Rose D., Fulham Road, Brompton, aged 9. Second attack of chorea, following as did first attack, severe blow on head; extensive scar present. Sharp child, attending school, but not over-worked.

Emily H., Laurence Street, Chelsea, aged 7. Has chorea, left arm and face. It followed a fright at seeing a man in a fit.

Robert W., Cheyne Walk, aged 12. Chorea three months. "Is at the top of his school; is fond of it and works very hard. It's no trouble to him."

Jessie B., Chelsea, aged 10. Chorea four weeks. Goes to Christ Church School, Paradise Road. "High up in the school (4th Standard); takes her books home and works hard at them."

Agnes B., Wellington Street, Chelsea, aged 7. Chorea three weeks; going to Christ Church Schools. "Very fond of her work; is at school 6 hours a-day, and asks for books and her pencil as soon as she comes home. Sister had chorea."

Jane K., aged 10. Slight chorea 2 weeks. "Takes her books home to work; works hard at sums; does compound addition." History of rheumatism.

Henry H., Convent Gardens, Notting Hill. Chorea 9 weeks. Fell off roof of shed at school. Had concussion of brain; chorea followed. No evidence of over-work.

Maud C., aged 8, Battersea. Chorea 1 week. Goes to National School; not very quick at book-work. Teacher is severe with her, and punishes her by keeping her in.

Kate G., Italian Walk, Vauxhall, aged 9. Chorea 1 month; was frightened by a runaway horse.

Kate P., Church Street, Chelsea, aged 13. Was frightened while swinging. Her sister "kept on swinging her till she was sick; would not leave off." Chorea followed.

Ada C., Chelsea, aged 7. Goes to Christ Church School; works hard. "Goes through her lessons in her sleep, and begins with her slate and book before she is up in the morning."

Elizabeth B., aged 13. Chorea. Was frightened by boys at Parson's Green.

Emily M., Battersea. Chorea, following fright.

Henry B., aged 13. Severe general chorea 7 weeks. In 6th Standard, and works hard, but sleeps well and not over-worked. Saw a woman lying in a fit; thought she was dead; was much frightened.

Alice W., Kamballa Road, Battersea, aged 7. Chorea 1 month; attending school in Green Lane. Sometimes kept in over time, but is very fond of work; never has a "book out of her hand. Is always spelling."

Clara H., Frere Street, Battersea, aged 9. Chorea came on while working hard for Scripture examination at school.

Frederick H., Camera Square, Chelsea. Attending school in Park Walk, Chelsea; no evidence of over-work. Fell on his head a month ago; chorea followed, scar on head visible.

There is no doubt that many, perhaps all, of these children were predisposed to chorea either from rheumatism or hereditary tendency. The determining cause, however, in 12 out of the 25, was a fright, a fall, or a blow. In the remaining 13, there is more or less distinct evidence of severe school work.

But now comes an important point. The over-work in nearly all the 13 was due not to the over-zeal of the teacher, but to the child's own active mind; to over-brain work, as in the case of the child who borrowed other children's books when her own were purposely locked up, but not to over-pressure.

Out of the hundreds of out-patients which come to our children's hospitals, it is extraordinary how few complain of school, at least, that has been my experience; and those who do suffer from school work, soon get over it on staying away for a time. Even chorea, though sometimes a serious illness, is generally recovered from in a few weeks.

All the cases above mentioned, with the exception of one which happened lately, and is still under treatment, recovered completely. Still, there is no doubt that over-brainwork occurs. It exists among adults during University life, and in life afterwards, and it would be extraordinary if it did not exist among children who naturally have more enthusiasm, and less physical strength than their elders. Probably, the greater number of over-worked children do not become hospital out-patients.

Now what is the remedy? First, I should say some modification of the "payment by results" system.

Secondly, taking care that children only work in working hours. In our great public schools, over-work is I believe not much felt, and one of the reasons for this probably is that boys are taught to play as well as to work. As soon as the time for cricket or foot-ball comes, all thoughts of vulgar fractions and irregular verbs vanish, but it is not the same with the poor. Playgrounds certainly have been provided by the School Board, but there are not enough of them, and the children are too much inclined to go home and sit down in close rooms, or at best spend their time in the open air, making mud pies over the street drain, or stuffing up the broken bell-trap in the back yard with tea-leaves and cabbage stalks. They ought to be taught to play games as well as to read books, and I can see no harm in making out-of-door exercise almost compulsory, perhaps in providing a dancing master, and professional teacher of cricket. At all

events quick children require some physical work to act as a check to book-work, and keep their over-active brains at rest. For I think the preceding scanty notes are enough to show that every now and then harm is being done, and, unfortunately, it is the best material which is wasted, the willing horse which is over-driven.

Such a plan as this would, of course, if carried out, entirely prevent children being kept indoors to do impositions or extra work during play hours. That, however, would be an unmixed good. Schoolmasters who keep children in when they ought to be at play, or parents and schoolmasters who have little fits of sulks with children when they are naughty and refuse to speak to them for hours, only help to spoil a child's character; short and sharp corporal punishment is far better. The ever to be remembered Dr. John Brown, the author of "Rab and His Friends," had the courage to write on this subject in a popular magazine some years ago, and concluded, if I remember rightly, with a paragraph to the effect that corporal punishment besides warming their little bodies had a direct tendency to "warm their little hearts."

CASE OF THE RESTORATION OF THE NATURAL COLOUR OF HUMAN HAIR AFTER HAVING BEEN GREY FOR SEVERAL YEA

By VANDELEUR C. ISDELL, L.R.C.S.I., L.M. Dub.

In conversation with Dr. George Hailey, F.R.S., of London (during his homeward voyage from attending the recent meeting of the British Association in Canada), regarding the changes in colour which occasionally take place in human hair, I mentioned a curious circumstance in connection with the restoration of colour with which I am intimately acquainted, from its having occurred in the case of my own father, Dr. James Isdell, of Dublin.

The main features of the case are the following:—

In the year 1861, when at the age of 62, both the hair of his head and beard were completely grey, whereas, in 1882, that is to say 22 years later, when he died at the age of 83, the hair of his head was of its original natural dark colour, the whole of it being quite dark with the single exception of a few grey hairs on each temple.

Unfortunately, as regards the condition of the beard at the time of his death I can say nothing, from his having shaved it off many years previously, and never allowed it to grow again.

I may mention that my father had been a teetotaller for upwards of 40 years, and that his mode of life had always been an exceedingly regular one. Moreover, no constitutional or other reason, that I am aware of, could be assigned for this strange freak of Nature in restoring to its natural colour my father's hair after it had become decidedly grey, and it is on account of authentic cases of this unusual occurrence being exceedingly rare, that, at Dr. George Harley's suggestion, I send you this brief history of the case as I think it may be useful to persons collecting data in connection with the anomalies of hair colouration.

Constipation from Lead.—A favourite prescription of Prof. Da Costa for the constipation of plumbism is one drop of croton oil, made into eight pills, of which one should be taken two or three times a day.—*Philadelphia Medical Report*, July 19th.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

A SERIES OF CASES OF URINARY TROUBLES.

(Under the care of Mr. EDMUND OWEN, F.R.C.S.)

(From notes taken by Messrs. Barton and C. Murray.)

Stricture—Extravasation of Urine—Perineal Section.

(1) A. H., 43 years of age, had led a rough life in Australia; for ten years he had had stricture of urethra. At the end of August a small catheter had been passed, and this operation was at once followed by retention of urine and a perineal abscess. For this he was admitted to St. Mary's Hospital. Under an anæsthetic, Mr. Owen performed perineal section (having failed to introduce a fine grooved staff). The perineal incision was prolonged forward through base of the scrotum and urethra, and a No. 12 (English) catheter was passed *per urethram* and into the bladder. Much offensive urine was drawn off and the bladder was then washed out. Five days later No. 14 was passed, and the sluggish wound in the perineum painted with compound tincture of benzoin with marked advantage. At the beginning of November he was discharged, having made arrangements to attend twice a week under the house surgeon, Mr. French, for the passage of a No. 15 catheter which entered the bladder easily. The urine passed *per urethram* and he had perfect control over it; he was looking well and strong.

Stricture—Phthisis—Acute Cystitis—Median Cystotomy.

(2) W. S., the wreck of a man who had been for years an asylum-attendant and afterwards an undertaker's porter, was admitted in the middle of September to the medical wards for phthisis; he had been a steady drinker. When he had been a few days in the ward he complained of pain above the pubes and of intense pain at the glans penis. The urine drawn off was so thick with pus and blood that at last it refused to flow through the eye of the catheter; the bladder was distended up to the umbilicus and the man was in a perilous condition. It was thought very possible that the pus and the blood in the urine were the result of tubercular ulceration of the bladder.

The patient was then transferred to the surgical wards, and Mr. Owen, having examined him, proceeded to perform median cystotomy on Buchanan's rectangular staff. Much offensive urine, pus and blood escaped, and the bladder was then and on every day for a month afterwards treated by free irrigation. The finger could detect no ulceration on the lining membrane of the bladder. From the time of the operation the patient improved in every way. No. 12 catheter is passed occasionally, and the man is preparing to leave the hospital.

Traumatic Rupture of Urethra—Pelvic Abscess.

(3) J. G., a boy of 8, whilst "doing Blondin" in Hyde Park on September 28th, fell astride the top bar of an iron railing. A few hours later he was brought to St. Mary's Hospital with retention of urine. Under chloroform, Mr. French was able to pass No. 6 silver catheter, drawing off much urine slightly stained with blood; with Mr. Owen's concurrence he then deeply incised a large blood tumour in the perineum. No urine escaped from the wound, but next day, as the

catheter could not be introduced and the boy was suffering from retention, Mr. Owen opened the urethra by an incision from the apex of the prostate forwards. The catheter was then passed and the bladder emptied; for the next three weeks the instrument was passed every other day, and all went on well. Then steadily his temperature ascended to 102°, he became pyæmic, and the hypogastric region grew hard and very tender though the urine came away clear. Leeches and fomentations were freely used, but as the hardness and tenderness increased and the boy was getting worse, a pelvic abscess was diagnosed which Mr. Owen attacked much as if he were about to tie the external iliac artery, except that he used the scalpel but little, and the grooved director a great deal. In this way about four ounces of pus were liberated from the sub-peritonæal region, the finger introduced being able to feel the back of the recti abdominis, the front and summit of the bladder and the fold of peritonæum reflected from the bladder. The finger was passed across behind the two recti and a counter opening was made in the opposite inguinal region, the large cavity was washed out with hot water tinged with iodine, a large drainage tube was passed through the two openings and iodoform was insufflated; pressure was firmly applied and the boy was made to lie prone. Immediately his temperature came down to and has remained at normal, his aspect improved and his appetite returned; no suppuration followed and in a few days the small drainage-tube was taken away. In every respect the boy is going on well, and though still in the hospital (Nov. 12) he is convalescent.

Remarks by Mr. Owen—These cases form but a part only of a highly interesting series of cases which have recently been under my care at the same time, and they have afforded excellent material for clinical remarks, of which the following have perhaps been the most important:—

(1) A hard swelling suddenly appearing in the perineum is most likely abscess; the pus is bound down too tightly to allow of fluctuation; it must be freely incised in the middle line. "Incontinence" in the adult means a bladder brimming over. A No. 9 or 10 catheter does not efficiently dilate the adult urethra. A man with stricture should learn to pass a full-sized bougie for himself, and it is highly expedient that he become a teetotaller.

(2) Median cystotomy is a simple and comparatively bloodless operation—it is one of dilatation rather than of cutting—it affords immediate relief to acute and obstinate cystitis and allows a digital examination of the interior of the bladder. The aphorism "a man is as old as his kidneys" is excellent; so far as the surgeon is concerned some men are old at 40.

(3) Rupture of the urethra entails the advent of a traumatic stricture; the patient must be made to understand this and keep himself under constant and prolonged supervision. Pelvic abscess must be treated on the principles which guide us in dealing with abscess in any other situation, for though deeply placed the pus is easily accessible. Pressure on sensory nerves causes elevation of temperature through the sympathetic system, and a belief in the germ-theory of disease should never imply a neglect of the important influence of that system.

Benzoin in Chaps and Frost-bites.—At a meeting of the Philadelphia Medical Society, Dr. Seiler called attention to the value of tincture of benzoin in the treatment of chapped hands and frost-bitten feet. He has used it in a number of cases with great success, simply painting the skin with it. The stocking may be prevented from sticking by rubbing some oil over the benzoin.—*Philadelphia Medical Report*, July 19th.

Medical Times and Gazette.

SATURDAY, NOVEMBER 15, 1884.

A private and informal meeting was held a few days since, at a house in Mayfair, to discuss the desirability of forming a "Teaching University" in London. Several eminent members both of our own and other learned professions were present, and the scheme was so well received that a small committee was elected to give a detailed consideration to the question. We hear that the medical profession, in both its branches, is extremely well represented on this committee, as indeed it well deserves to be, considering that it is by medical students that the want of a university is most felt. What we require is (1) A come-at-able degree, and (2) Organisation of teaching; and no scheme for founding more resident colleges and university professorships will be acceptable if these two desiderata are neglected.

A general meeting of the Association of Fellows of the Royal College of Surgeons was held on Saturday last, the 8th instant, to consider the recommendations of their Sub-committee on the proposed alterations in the Charters of the College, a provisional scheme of which we published a fortnight ago. Only very slight and unimportant alterations were made in the sub-committee's proposals. The meeting was presided over by Mr. Pollock, and about 150 Fellows, either by their presence or by sending letters of approval, signified their assent to the recommendations.

Our Paris correspondent writes:—The cholera has made its appearance here, a fact with which the daily papers have of course made the public acquainted. The present state of things was preceded during a few days by an epidemic at Aubervilliers and Pantin, on the outskirts of Paris, among the *chiffonniers*, or rag-gatherers, who congregate in wooden huts in these suburban localities. The huts were evacuated and burnt, the population removed, and the local epidemic arrested; but on the 3rd of November, an undoubted case of Asiatic cholera broke out in the Rue Coquillière, in the business centre of Paris. The person affected was a young married woman in an advanced state of pregnancy. The case soon proved fatal. Four deaths from cholera took place the next day, and the usual process of dissemination set up. On Sunday, November 9th, from midnight to midnight, 186 cases and 51 deaths were reported. On November 10th, within the same limits of time, the number of cases registered was 153, out of which 33 proved fatal.

The infliction is impartially disseminated throughout the various quarters of Paris, the Arrondissements chiefly affected being the 11th and 7th. In this latter section of the capital, a local epidemic, of unusual severity, has occurred in a poor-house, kept by Sisters of Mercy, for the aged and infirm paupers of the

district. The house is situated in the Rue de Breteuil. When the visitation occurred, the disease made fell havoc among the old, disabled and unresisting population. Twenty-eight paupers died on the 9th, and seventeen on the 10th. It is owing to this local outbreak that the 7th Arrondissement exhibits so large a death-rate from cholera, the other portions of the district being comparatively free. The general attitude of the population is excellent. The necessary measures had long ago been taken, an invasion of cholera having been daily apprehended since last July. Two hospitals (Mariniers and Bichat) have been set aside for cholera patients; and in all hospitals and lunatic asylums a special quarter is put apart for the same purpose. Disinfecting processes are applied by a trained body of special agents, and rapid interment is enforced. Several cases have occurred in the garrison of Paris, especially among the *chasseurs*, and it is intended to station the troops, as far as possible, outside of the city.

A very remarkable fact, to which no one seems to have drawn attention, is that the outbreak of cholera was preceded, during the end of September and the whole of October, by a strongly marked epidemic of influenza. During six weeks, half the population of Paris was afflicted with coughs and colds, with sore throat and loss of voice, and many cases occurred of fatal bronchitis and pneumonia. Now, the contagion of cholera was certainly imported into Paris from the very beginning of the epidemic in the South of France. Several sporadic cases were observed in travellers coming to Paris from Perpignan and other infected localities. Two such patients died at the Hôpital Bichat, in the wards of Dr. Gougenheim, in whom the *post-mortem* appearances were exactly those of Asiatic cholera. The seed was therefore sown broadcast, and yet it did not prosper, the receptivity of the population not being carried to its proper pitch. Then, the epidemic of influenza comes "to manure the soil," after which a paltry epidemic among rag-gatherers (probably caused by the importation of soiled rags from the South) breaks out at Aubervilliers, and in an instant the whole capital is on fire. Is it not probable, therefore, that something more than the comma-bacillus, something more than pollution of rivers and wells, is required to set the fiend free?

Dr. Fauvel, the illustrious hygienist, died just in time to escape witnessing the downfall of his predictions. He was carried off by pneumonia, at the age of seventy-two. His health had long been failing, and the moral shock of recent events aggravated his situation. He was Vice-president of the Academy of Medicine, Inspector-General of Sanitary Sciences, Professor at the Medical School at Constantinople, and Honorary Member of the Consultative Committee for Hygiene. In former years he took a very active part at the International Congresses held at Vienna and Constantinople for the regulation of quarantine and the organisation of sanitary measures for the abatement of the plague.

Mr. Mundella, as we anticipated, is determined to have no official enquiry into the working of the Education Code, and lives in the hope that a partial and more or less private investigation by the London School Board will be sufficient to silence all complaint. Mr. Stanley Leighton, in the House of Commons, last week, appears to have asked for more than the most extreme believer in the existence of over-pressure had ever demanded, viz., a commission of enquiry composed entirely of medical men. Such a commission, we fear, would as little satisfy Mr. Mundella, Mr. Fitch, and the rest of the Education Department, as a commission nominated entirely by the department would satisfy medical men. The *Medical Times*, as Mr. Storr has pointed out in the leading journal, was the first to advocate an enquiry, and it never asked for more than a mixed commission. We are glad to see that Mr. Mundella recognises the advantage of an enquiry being "assisted by impartial and thoroughly qualified medical experts"—we shall be curious to see whom he regards as experts in this particular matter—and testifies to the benefits that have followed the public discussion of the question. Not the least of these benefits is that the discussion has evidently brought Mr. Mundella into a more statesman-like frame of mind than when he hurled his famous "boomerang."

The debate on the Indian Medical Service raised in the House of Commons, in July last, has brought forth good fruit with unhoped for promptness, and in unlooked for fulness. On that occasion the tone of the Under Secretary of State for India, Mr. Cross, was uncompromising and unsympathetic. He stoutly denied that the junior officers of the Service had any grievances at all to complain of. The Service had been over-manned and promotion was unquestionably slow; but all that was a matter of luck, and the Government of India had nothing to do with it. Mr. Cross' bark was hard and defiant, but at the conclusion of his speech he softened so far as to express some sympathy with the junior officers, who, according to him, had no grievances; and to assert that he should be delighted to help them could he do so consistently with his duty; and he promised that the whole matter of the debate should be placed before the Government of India. On Thursday sen'night Mr. Cross showed that his action in the matter in question has far exceeded the promise of his speech. Mr. Gibson asked whether any, and if so what, steps had been taken by the Indian Government to lessen or remove the grievances of the Indian Medical Service; and in reply Mr. Cross stated that the measures taken to reduce the number of the unemployed medical officers had been efficacious. The Government of India had telegraphed that there are now only two unemployed officers in Bengal; and they will report how many are still unemployed in Madras and Bombay. Further, it has been decided to place all surgeons of the Indian Service, not holding executive charge, on precisely the same footing, as respects pay, as Surgeons of the Army Medical Department similarly situated. The lower rate of pay hitherto termed "unemployed pay," will for the future be called "grade pay," and will be given only when

an officer is in receipt of staff salary in addition to his pay. Thus, all the most real and serious grievances of the Indian Medical Officers have been quickly and effectively remedied, a clear proof that had a little extra forethought and care been exercised they would never have existed. Cure is good, but prevention would have been much better.

It appears that the new regulation requiring Surgeons-major to undergo an examination for promotion to the rank of Brigade-surgeon is to be made retrospective, and to apply to even very senior officers. In reply to a question by Sir H. Fletcher on the subject, the Secretary of State for War stated that there are several Surgeons-major over fifty years of age who will have to pass an examination before being promoted to the rank of Brigade-surgeon. Lord Hartington did not suppose that any precedent could be found for such a proceeding, but in no other Service was it so difficult to arrive at the grounds of selection for promotion; and the examinations were determined on at the suggestion of the Director-General. Previous Directors-General of the Army Medical Department must, presumably, have had to undertake the responsibility of selecting officers for promotion to the administrative ranks of the Service; and it would not seem too much to ask the present Director-General to bear the burden of that responsibility for a while rather than to compel officers who have served for twenty or five and twenty years, or even longer, to submit to an examination for promotion.

Those who are anxious that the College of Surgeons should take the place as a national institution to which its coming wealth and the numbers of its members well entitle it, will read with real pleasure the career sketched for it by Sir Spencer Wells in the concluding portion of his Birmingham address, published in another column. We are glad that the scheme of establishing a pathological institute, which we believe we were the first to advocate, finds favour in the eyes of one so influential at this College as Sir Spencer Wells.

At the Medical Society, on Monday last, Dr. de Havilland Hall read a paper on so-called Surgical Scarlet Fever, his reason for doing so being that "the connection between surgical operations and scarlatina is unknown to many students and practitioners, *probably on account of the text-books on surgery most in vogue ignoring the subject.*" This is certainly a curious reason to give for bringing forward such a subject. Since the authoritative expression of opinion made at the International Congress that so-called surgical scarlet fever is nothing but the ordinary fever occurring after operation, it seems to us to be regretted that the old and obsolete term should be revived. Nevertheless, an interesting debate occurred on Dr. Hall's paper, in which, after relating a typical case, he summarised the published cases, the most generally accepted views, and added a bibliography up to date. The paper when published will be a valuable addition to the Medical Society's volume. We cannot agree with him, however, that the *surgical* text-books are responsible for the ignorance of the subject which he so much deplores Surely the medical text-books are the most suitable places to discuss such questions. On turning to the latest work on "Diseases in Children," by Dr. Eustace Smith, we find it spoken of as "the form of scarlatina which occurs sometimes after surgical operations." Dr. Hall's calling attention to the subject will be the means, let us hope, of having any deficiency in the text-books put right. In the discussion which followed, most of the speakers accepted Dr. Hall's view that the disease was ordinary scarlet fever, that it might be followed by the usual sequelæ, and would affect other persons exposed to it. Other forms of disease were also mentioned as liable to attack surgical patients: such as erysipelas, chicken-pox, gout, as well as non-specific erythematous rashes. The influence of anæsthetics in bringing out "rose rashes" was also alluded to. Altogether it was an interesting and profitable debate, which, if it did not bring out any new facts, will certainly serve to draw professional attention to the need of careful supervision and strict isolation of all cases in which rashes follow on surgical operation.

At the Medical and Chirurgical Society, on Tuesday, the 11th, before a very small gathering of the Fellows, Dr. Champneys read a paper on Expiratory Cervical Emphysema, occurring during labour. The final conclusions were quite lost sight of in the elaboration of detail with which the paper was over-weighted; partly in consequence of this, and of the nature of the subject, there was little or no discussion. The chief point, however, which followed from Dr. Champneys' experiments, was to show that the "weak spot" on the anterior surface of the root of the lung, that is to say, that in violent efforts of expiration, when the lung ruptures, the rupture occurs at the root, and not, as one would have thought, along its free margins. The accident occurs only about once in two thousand labours, and seems always to end favourably, hence the condition is not one of any great clinical importance.

The Bowman Lecture which was delivered before the members of the Ophthalmological Society on the eve of our going to press, will appear in full in our pages next week. Suffice it to say at present that the members and visitors present, by their numbers, testified to the esteem in which Sir William Bowman is held, not only amongst men engaged in his own line of practice, but in all classes of the profession. Mr. Hutchinson, who had been selected by the Council to give this, the first, lecture, chose the relation of Diseases of the Eye to Gout, a subject in which his interest has already been amply evidenced by numerous writings. The lecture was obviously the result of clinical experience and observation, and was mainly devoted to an endeavour to extend the limits at present set upon the influence of gout on diseases of the eye, the lecturer dwelling especially on two conditions in which he believed that gout played an essential part, viz., a form of very destructive iritis, occurring first in one eye and then in the other, and usually attacking young people. The other affection for which he claimed a gouty connection was neuritis; and this, too, was supported by clinical evidence, one case especially afford-

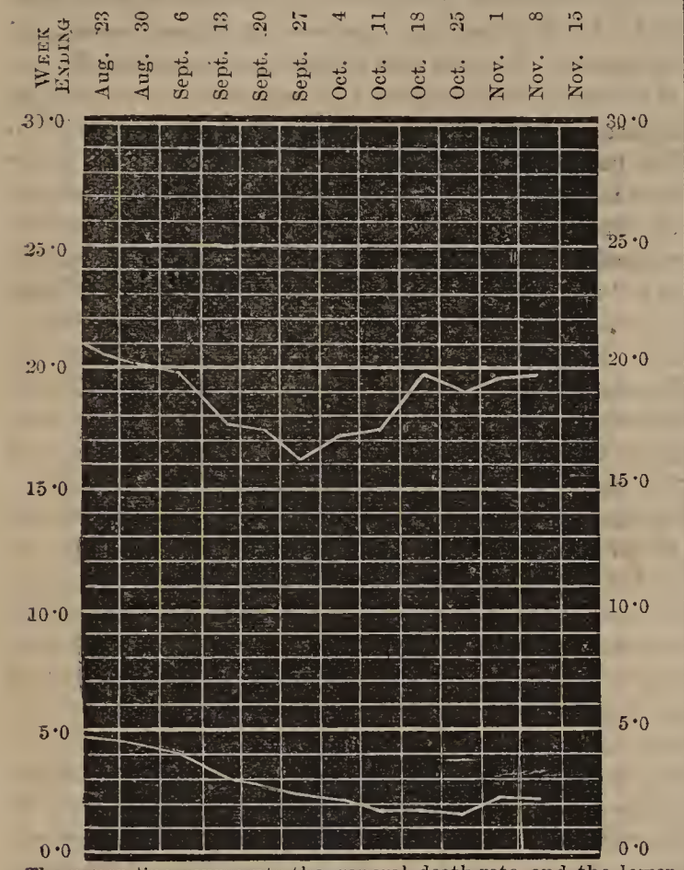
ing strong support to the assumption that neuritis of the optic nerve might be of gouty origin.

An interesting discussion on Intestinal Obstruction has recently occupied the Liverpool Medical Institution during two evenings, those, namely, of October 23rd and November 6th. The discussion, which was exceptionally well attended on both occasions, was opened by Dr. Greves and Mr. Pughe, who narrated a successful case which had been under their joint control at the Children's Infirmary, and which closely resembled one of Mr. Gould's cases published in our columns last week. The obstruction, occurring in a child, was diagnosed to be a band in the region of the cæcum, and on the failure of mechanical means, Mr. Pughe, under the strictest antiseptic precautions, opened the abdomen. He found that the obstruction was caused by an adherent vermiform appendage tightly constricting a loop of intestine. The appendage was ligatured in two places and severed between the ligatures. Relief was immediate, and the child was shown to the audience in perfect health. Twenty-one physicians and surgeons took part in the debate, including the majority of the hospital physicians and surgeons of the city. About the medicinal treatment there seemed to be very little difference of opinion, it being generally admitted that complete rest, starvation, and large quantities of opium formed the most reliable measures. Mr. H. O. Thomas opened the discussion on the second evening and reiterated the opinions he has so ably practised and preached for the last twenty years and more. The physicians claimed great results from medicinal treatment; but, as Mr. Paul showed, their general statements were not supported by statistics. Whilst he was pathologist to the Royal Infirmary, eighteen cases of intestinal obstruction were admitted. Ten of these reached the *post-mortem* room, several of which, Mr. Paul showed, might have been saved by timely surgical interference. Dr. Rich, the present pathologist, said his experience was very similar. Of the cases cured by medical treatment, a considerable number, according to several speakers, were cases of colic and constipation, which would have got well under any treatment.

Most of the physicians admitted abdominal section to be useful as a *dernier ressort* in intestinal obstruction, but held that the mortality from it only justified its being used as such. The surgeons replied that the mortality was due to the operation being performed too late. Generally, when the physician handed the case over to the surgeon, it was more fitted for the *post-mortem* than the operating theatre, and the operation instead of being a *dernier ressort* only hastened the end. They maintained that the surgery of the abdominal cavity was now almost perfect, that the diagnosis was chiefly at fault, and that the subject under discussion suffered from belonging to the physician first and to the surgeon afterwards. The surgeon ought to have such cases from the beginning. He could easily manage the medicinal treatment as well as the physician, and the necessity for a correct diagnosis, *upon which he might have to act*, would sharpen his diagnostic powers; besides, he could have all the details for a surgical operation arranged, and would not have to operate hastily and perhaps without suitable assistants and precautions, as he often has to do when called in after the patient has begun to sink. It was evident, from the case referred to by all the speakers, that the experience of each was extremely limited, and that cases of intestinal obstruction are comparatively rare. Hence individual experience is limited, and no one has extensive opportunities of perfecting the diagnosis and treatment of such cases. The patient, taken ill suddenly, is narcotised by the nearest medical man, and every symptom seems for the moment improved, until, when death threatens, a surgeon is sent for to find a distended dying man. Many surgeons asked why the physicians did not treat external hernia in this way; to which the physicians replied, that they would not thus treat internal hernia, if it could be diagnosed as such, but that the difficulties of diagnosis were so great, the causes of intestinal obstruction so various, and the operation of abdominal section so hopeless, that they were rather disposed to trust at present to the medicinal than the surgical treatment, except in cases such as that described by Drs. Greves and Pughe. The grand results claimed by antiseptic surgery in dealing with this disease were founded, according to the physicians, rather upon anticipations of the future than on cases hitherto cured by it. It was generally agreed by all that starvation, rest and opiates should be tried at the beginning, when strenuous efforts to establish a diagnosis should be made by careful watching and analysis of symptoms, and that preparation for surgical treatment should be made, to be applied whenever the pulse began to seriously fail, the prostration to increase, the tongue to become dry and brown, and the vomiting to continue more than four times in the twenty-four hours. Aspiration was spoken of highly by some as a palliative and sometimes a curative proceeding. Purgatives were universally, and enemata generally, condemned, except to start the bowels after the symptoms had completely passed away. Inflation by air or fluid was only recommended in the very early stage of intussusception. The discussion was a very successful one, and has somewhat cleared the atmosphere around an obscure region of diagnosis and treatment.

During the week ending last Saturday, 1,516 deaths were registered in London, including 167 from the zymotic diseases. Of the latter, small-pox accounted for 22 victims, 10 of whom were unvaccinated, whilst there was no statement as to vaccination as regards 8. The deaths from measles and scarlet fever numbered 32 from each, both, but especially the latter, being considerably under the average. Diphtheria caused 17 deaths, whilst 19 were attributed to whooping-cough. The mortality from diseases of the respiratory organs continues to be much below the corrected average, a fact no doubt partly due to the extraordinary amount of sunshine we had last week, no less than 21·4 hours having been registered, whereas the average of the preceding five weeks was not quite 12·4 hours. Nearly one fourth of the total number of deaths, viz., 354,

occurred in infants under one year of age, and our readers will probably be as much surprised as we were to learn that 19 of these were carried off by tabes



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past twelve weeks.

mesenterica. Of the 28 large towns, Preston again heads the list with a death-rate of 31·5, Cardiff being second with 27·4; the zymotic death-rates being 6·3 and 7·3 respectively in these towns.

By the death of Professor Fawcett the Lord Rectorship of the Glasgow University has become vacant, and the appointment must be made by Saturday the 15th instant. The students have arranged among themselves that an understanding should be made between the Conservatives, Liberals and Independents by which they may unanimously choose a gentleman to fill the vacancy. Mr. Robert Browning, who was first unanimously selected by the students, telegraphed his thanks for their kindness, but at the same time declined the honour. Mr. Matthew Arnold is now spoken of, but whether he will accept the honour is not certain. At one time it was arranged that the usual party selection should be made, and the names of the Marquis of Salisbury, Lord Hartington and Mr. Trevelyan were mentioned. The time being so very limited the usual demonstration will of course be out of the question. At the meeting which was held last week in the University, for nominating candidates for the Lord Chancellorship, the Marquis of Bute and the Earl of Stair were ultimately the two noblemen who seemed to divide the suffrages of the meeting. A poll was therefore decided upon and voting papers were issued, but in the interval the Marquis of Bute wrote to the Principal of the University, thanking him and all those who desired to confer the honour upon him, at the same time declining it, and stating that he had been proposed without his knowledge, as otherwise he would not have allowed his name to have appeared on the list. The supporters of the marquis, however, will not take a denial but are determined if possible to return him at the head of the poll, and as it were, compel him to accept or at any rate to place the Earl of Stair in the awkward fix of being a defeated candidate. This is to be regretted, for the Marquis of Bute, it is certain, will not allow himself to be placed in the position which he in his letter to the Principal most positively but courtcously declined.

Last Sunday being the second Sunday in November, was set apart as in previous years as "Hospital Sunday" in Dublin. Fortunately, the weather was beautifully fine and large congregations assembled in most of the two hundred and thirty Protestant Churches in which the collection was made. It was the eleventh annual appeal on behalf of the Dublin Hospital Sunday Fund, the first having been made in 1874, since which year 40,060*l.* have been collected, and 37,559*l.* distributed among the participating hospitals. Circulars distributed previously to Hospital Sunday showed that the hospitals on behalf of which this appeal is made, receive annually within their walls upwards of 11,000 patients, attend upwards of 3,000 lying-in women at their own homes, treat as extern patients upwards of 8,000 accidents, and relieve many thousands at their dispensaries; they contain nearly 1,200 beds, many of which unfortunately cannot be used for want of funds. The work done by these hospitals costs about 40,000*l.* a year, of which about 10 per cent. is supplied by the collections on Hospital Sunday, but a great deal still remains undone in consequence of the limited incomes of the institutions. It was further pointed out that in a well-managed hospital the annual cost of maintenance (exclusive of management) per bed is about 25*l.* and as each bed on an average accommodates 18 patients in a year, this 25*l.* will relieve about 18 sick persons; 30*s.* will, on the average, provide for one patient during his stay in hospital; 2*s.* 6*d.* will maintain a patient in a Dublin hospital for one day. Every one who contributes half-a-crown to the Hospital Sunday Collection may thus provide for one poor sick person for one day. So far as the returns have as yet come in, the collection of the present year appears to be well up to the average.

In the characteristic address which he delivered at Meath Hospital last week, Professor Macnamara bitterly complained that he had been dubbed a "fossil," and gave a long and amusing demonstration that the term had been misapplied. For ourselves, when listening to the discussions of the Medical Council, we have been tempted to wish that Mr. Macnamara were anything so silent as a fossil. The term appears to have been applied to him because he does not believe in the carbolic spray; and he is no doubt glad to believe that, if that is sufficient to constitute a fossil, he is not the only one in the profession. He does not believe in the spray, because if it effectually destroyed the germs which favour suppuration, it would have to be

of such a strength that it would also destroy the tissues to which it was applied. A little later in his address Mr. Macnamara stated, "in justice to Dr. Koch," that in the two last invasions of Dublin by cholera, he found the premonitory diarrhœa more controllable by astringent mixtures containing sulphuric acid than by other remedial measures. "Contrast this clinical experience with Dr. Koch's statement as to the action of acids in destroying the vitality of his microbes, and I think we may attach to it some importance." Surely if Mr. Macnamara believes that one germ can be killed by an acid solution which only braces up the stomach, he ought not to be so sceptical as to the effect on other germs of another acid solution which can be used many times as strong. "There are germs and germs," would probably be Mr. Macnamara's answer; to which our rude reply would be, "There are Professors and Professors."

A distinguished physician who has had ample experience of both the English and Scottish systems of medical education, has been prompted by our last week's colloquy to write to us as follows:—I quite think with you that, to compete with Edinburgh, it is necessary to concentrate our teaching, more especially in Anatomy, Physiology and other preliminary subjects. It is also, I think, most desirable to make more of the great clinical field in London. The clinical teaching wants stimulating. If we elected one or possibly two clinical lecturers or professors at each hospital, and made those appointments open to all physicians, London and provincial, taking care that the professors or lecturers devoted a certain time *daily* to clinical teaching, we should effect a great revolution, and should gradually improve the clinical teaching, without in any way interfering with the gradual rise by rotation of the hospital staff. Many men who cannot teach can observe, though the best teaching and the best observing usually, I believe, go together. The same method of appointing all lecturers would, I think, be an improvement, but it is especially in the clinical field that London can easily beat Edinburgh, or at least ought to do so. There, there are often two clinical clerks to a bed, and many men well able for hospital work cannot get even assistant physician appointments.

An anti-vaccinator, who during the period of his imprisonment for non-compliance with the requirements of the law had been made acquainted with the discomforts of the plank-bed, has protested against what he regards as a specially illegal addition to an unjustifiable punishment; and his indignation assumes the very tangible form of an action for damages. Whether in this instance the application of a salutary law has been technically strained, may form the subject of a very pretty legal argument, on which a decision will in due time, no doubt, be reached. The production of the charge, however, reveals the existence of such a personal appreciation of the importance of dis-ease as we might scarcely have looked for amongst those who profess themselves persistently careless of the evil results which the practice of their own peculiar theories is only too likely to entail on others. Did the present state of society admit of its impartial application, it is possible that herein might be found the most efficient means of meeting the "arguments" and of silencing the clamour of many misnamed reformers. A great deal might be advanced in favour of adopting something of the *suus cuique mos* principle in dealing with the perpetrators of wanton injuries to the person. If, for instance, the dynamitard knew that his certain fate, on capture and conviction, was to be seated on a valise stuffed with his favourite explosive, with its fuse connected with the mechanism of a "peep-o-day" time-piece placed a few feet in front of him, so that he would watch the clock-hands slowly traversing its face towards the hour of his doom, the drawbacks attendant on his trade would be decidedly increased, and that by the prospect of just such suffering as he was prepared to inflict on others, and the number of its members lessened in proportion. On the other hand, and supposing the subject were in all other respects new to us, it is probable that we should not think a few nights on the plank-bed, even if that couch possessed the power of obliterating all natural prominences, effacing all rotundity, and rendering the sleeper's countenance as plane as that of an inhabitant of "Flatland," was unmerited by the man who, in the face of overwhelming evidence and of repeated warnings, had deliberately chosen to expose the members of his own family together with those of his neighbours to an indefinite extent, to the ravages of a disease which is always loathsome, often disfiguring, and not seldom fatal.

An interesting statistical report has just been published by the Administration of Public Assistance of Paris. The total number of beds, in the various establishments which depend upon its resources, is stated at 16,462. The following are the figures mentioned:—

Hôtel Dieu	559
Obstetrical Clinic (females)	130
,, (children)	53
Pitié	719
Lariboisière	706
St. Antoine	621
Tenon	825
Necker	418
Beaujon	422
Cochin	249
Bichât	200
Laënnec	628
Salpétrière (pensioners)	3,821
,, (lunatics)	720
Bicêtre (pensioners)	1,658
,, (lunatics)	738
Enfants Malades	562
Trousseau (children)	427
St. Louis	843
Midi (venereal)	336
Lourcine	243
Maternité	316
Dubois	351
St. Anne (lunatics)	917
Total ..	16,462

The population of Paris, according to the last census, amounted to 2,240,000. The proportion of the number of hospital beds to the population will, therefore, be

found to be larger than in most European cities. It must also be remembered that a very large number of the poor receive "home assistance," and that in all these hospitals and in the "Bureaux de Bienfaisance" gratuitous consultations are given, including, in many cases, the gratuitous supply of drugs. It is even said that the Paris apothecaries seriously complain of the loss which this state of things entails upon their trade. It will, therefore, easily be understood how large a drain upon the public purse is entailed by this vast and complicated system of official relief to the poor, and how dependent the Administration must needs be upon the Municipal Council for the necessary supplies.

The *Société de Chirurgie*, containing nearly all the surgeons of Paris hospitals, met the other day to discuss the claims of lady students to the situation of *internes* or house surgeons. The ladies were blackballed by 23 votes to 4. Soon after, the *Société Médicale des Hôpitaux*, which comprises nearly all the physicians of Paris hospitals, met for the same purpose, and voted against the ladies by 64 voices to 4. After this signal defeat, the ladies will find it difficult to carry their point.

An influential Committee has been formed in Stockholm, under the presidency of Professor Axel Key, for the purpose of carrying on the work of collective investigation in Sweden, in connection with the International Committee. A similar Committee has been formed, on Professor Runeberg's proposition, in Finland. The recommendations of the Sub-committee as to the lines of enquiry to be followed, are now under consideration by the International Committee.

As an illustration of the oppressed condition of educational and medical matters depicted by "Stepniak" in the *Times*, we may mention that the Centenary Festival of the Obuchow Hospital, founded 100 years since by the Empress Catharine II., which had been announced, has been prohibited. And yet the hospital, as the *St. Petersburg. Med. Wochenschrift* (October 25th) shows, has something to be proud of. The 200 beds provided at its foundation have risen to 1,000, and on emergencies have been increased to 1,300. In one year as many as 3,600 cases of typhus have been received; and during the worst period of the cholera in 1878, it received 123 cases daily, the number for the year amounting to 16,730. There was a time when it was always a recommendation to a practitioner if he had served in this hospital, and much good work has been done there. To cite but one example, the researches made there on Recurrent Fever may be said to have assured to this disease its "academic rights," so to say, of being one of the scourges of mankind. Within its walls, too, sixteen practitioners have lost their lives through their attendance on the inmates.

We hear with regret that many of the volumes in the library of the Royal College of Physicians are not in such a good state of preservation as might be desired. This may probably be traced to a want of proper hygienic conditions, for books require air and exercise to keep them sound, almost as much as human beings. The library is a spacious and airy room, but the books are kept locked in glass cases, and many of them are probably not often disturbed from their rest. Damp has affected many of them to such an extent that some —especially amongst those advanced in years—are considerably damaged; the pages have become deeply stained and can only be separated with difficulty. The leather bindings too are said in many cases to be so softened that the backs split and the covers break off on the tenderest handling. The worst of it is that the books which are most likely to go to ruin are those which are most valuable from the scarcity of copies of them at the present time. If all these allegations are well founded, we are sure that the officials of the College will be grateful to us for calling attention to them, and will not lose a moment in putting things right.

An American physician has added to the groaning pile of Shakespearian literature yet another tome, under the title of "Shakespeare as a Physician," in which is supposed to be recorded "every word which in any way relates to medicine, surgery, or obstetrics found in the complete works of that writer, with criticisms and comparison of the same with the medical thoughts of to-day." The volume consists of nine chapters, under the several headings of obstetrics, psychology, neurology, pharmacologia, ætiology, dermatology, organology, chirurgery, miscellaneous. A reviewer notes the omission of separate chapters on gynæcology, laryngology, and otology.

Turning over the pages of Mr. Stuart Reid's new life of Sydney Smith, the other day, we came across the following in a hitherto unpublished essay by the famous wit, entitled "A Little Moral Advice." It deserves quoting in full:

"When you are in a melancholy fit, first suspect the body, appeal to rhubarb and calomel, and send for the apothecary; a little bit of gristle sticking in the wrong place, an untimely consumption of custard, excessive gooseberries, often cover the mind with clouds and bring on the most distressing views of human life. I start up at two o'clock in the morning, after my first sleep, in an agony of terror, and feel all the weight of life upon my soul. It is impossible that I can bring up such a family of children, my sons and daughters will be beggars; I shall live to see those whom I love exposed to the scorn and contumely of the world!—But stop, thou child of sorrow, and humble imitator of Job, and tell me on what you dined. Was not there soup and salmon, and then a plate of beef, and then duck, blanc-mange, cream cheese, diluted with beer, claret, champagne, hock, tea, coffee, and noyeau? And after all this, you talk of the *mind* and the evils of life! These kind of cases do not need meditation, but magnesia. * * * * I recommend lights as a great improver of animal spirits. How is it possible to be happy with two mould candles ill snuffed? You may be virtuous, and wise, and good, but two candles will not do for animal spirits. Every night the room in which I sit is lighted up like a town after a great naval victory, and in this cereous galaxy and with a blazing fire, it is scarcely possible to be low-spirited, a thousand pleasing images spring up in the

mind, and I can see the little blue demons scampering off like parish boys pursued by the beadle."

It is curious to think that this was written by a churchman close upon eighty years ago.

Nature's anachronisms are always full of interest. It is not rare to hear of persons who are rightly described as having been born before their age; and now and again we meet with those whose birth, having been accidentally omitted some centuries ago, has placed them, mentally if not physically, a few hundred years behind the present time. Such an individual recently forwarded to the Editor of one of our contemporaries an interesting communication from which we quote the following—"for what it is worth." "When I state that after the death of a dog or person who has been bitten by a poison snake, on examination P.M., there will be found attached to the liver a snake of the same species as the one that bit the dog or person, and if the dog has been bitten twice there will be two snakes, and in one instance the snake put out its tongue, nobody who has never seen it or heard of it will believe it. Yet such is the fact. This is why a person or dog who has been bitten with a snake feels the influence every year, at the time snakes awake up from their dormant state." Anyone, we think, may be pardoned for not believing in that which "he has never seen or heard of," and in the present instance the most generous critic might be excused for carrying his incredulity to even further limits. Judging from the internal evidence afforded by the statement itself, it may be surmised that the writer is a confirmed adherent of other ancient faiths, as, for instance, the cure by "a hair of the dog that bit you," and this possibly according to its more modern rendering.

Dr. Collingridge's report as Medical Officer of Health for the Port of London for the first half of the present year is before us. In view of the possibility of an invasion of cholera, very great attention has been paid to the hygienic condition of all vessels lying in the Port. Cleanliness has been insisted upon, ventilation has been provided, drinking water looked after, bilges cleaned out, and everything that could be thought to have any bearing upon the health of the seamen has been carefully attended to. One of the great difficulties that he has to contend with is the introduction of unsound meat, which, owing to the extent of the trade in frozen meat, is taxing the resources of his slender staff severely. As instances of what they are doing in this direction we note that about eight tons of semi-putrid herrings were destroyed from one ship, and in another case 933 frozen sheep, equivalent to 26·5 per cent. of the whole consignment, were condemned as unfit for human food. The meat so condemned is destroyed under the supervision of the Inspectors, having been first thoroughly disinfected to avoid the possibility of a nuisance. The compulsory notification of infectious diseases is practically in force and works well. The report gives details of each instance in which infectious disease came under the notice of the sanitary authority.

A series of lectures delivered by the well-known Dr. Schutzenberger, the last Professor of Medicine in the Medical Faculty of Strasbourg, between the years 1834 and 1870, were, in conformity with a wish expressed before his death, collected together and published by Masson in 1879, under the title "Fragments de Philosophie Médicale." The work, consisting of lectures on medical philosophy and clinical medicine, furnished an excellent exposition of the doctrines and practice of the Strasbourg School of Medicine, and was much prized by attached pupils of Schutzenberger as a momento of happier days. It is not a little startling, therefore, to find the *Gazette Hebdomadaire* publishing in its last number an article, in which it shows in great detail that a translation of this work into Spanish has been published, as his own, by Dr. Encinas, of the Madrid Medical Faculty. His work of 700 pages is represented to be no mere imitation or adaptation of that of Schutzenberger, but simply a translation, of which proof is furnished by printing a large number of passages of the two works in parallel columns. It is not a little singular that the only portions of Schutzenberger's work that have not been included in the translation are those which relate to Medical Confraternity, Professional Relations, and Professional Morality.

The want of a biographical dictionary, giving details of the lives and labours of those who have contributed to the advancement of medicine, has long appeared to us as one of the most important desiderata in medical literature. We have just received—from Germany, of course—the first part of a work which promises to adequately fill the gap. It is edited by Professor Hirsch, of Berlin, with the assistance of Dr. A. Wernich, and a goodly list of contributors. In this list, which contains some of the best known names in Germany, we notice with regret no representative either of England or France. The United States are adequately represented by Dr. Billings, while Austria, Hungary, Belgium, Holland, Denmark, Italy, Greece, and Spain have all some one to look after their interests. We have no right to complain, for no one has shown a greater neglect of past English medical worthies than their successors. Out of 440 works from which the present dictionary is compiled, there are only three of purely medical biography, viz., the well known works of John Aikin, Dr. Munk, and the late Dr. Forbes Winslow. The first part of the dictionary only carries us as far as Albers, but in that short alphabetical division the English school is not badly represented by such names as Abercrombie, Abernethy, and Addison, besides many others of less celebrity. The biographies in each case appear to have been carefully compiled, and if equal thoroughness is shown in the subsequent parts the whole will be a work for which we cannot be too grateful to German enterprise and research. We cannot quite agree with the editors that "the just appreciation of our predecessors is the only thing that keeps us from an irreverent nihilism, and frees us from the fetters of authority;" but we candidly admit that there is much to be learned from the lives of others of our great predecessors than the two worthies Harvey and Hunter, on whom the

backward glances of English panegyrists are wont to be exclusively bent.

Professor Humphry, in the recently issued number of the *Journal of Anatomy and Physiology*, has given us what we may consider as part of the first-fruits of his investigation into the health of aged people, in the shape of a paper relative to the repair of wounds and fractures in them. As he observes, it seems rather a paradox to say that in the aged wounds, if they do not slough, have a tendency to heal rapidly, more so than at an earlier period of life. This is contrary to what might have been expected, and the professor apparently has not been able to frame any theory entirely satisfactory to his own mind, and so he offers no explanation, but calls attention to what seems even more remarkable still, and that is, that the stump left after the separation of the parts in senile gangrene often heals with unexpected quickness. In the fracture of the bones in old people the same thing is seen, there being either an utter failure to produce the uniting material, or the union takes place at a comparative early date. He reminds his readers that the true cause of the non-union in cases of fracture of the neck of the femur in the aged is not on account of any tendency in such persons to non-union, but is owing to the difficulty of keeping the ends of the fragments in apposition, and because the ends of the bones are constantly bathed in synovial fluid.

A phantom brain of colossal dimensions—not the offspring of the Psychical Research Society, but a histological model—has been lately constructed by Buechi, of Berne, under the supervision of Professor Aeby, for an American museum, for the purpose of demonstrating the course of the cerebral fibres, and their relation to the several nuclei and to the spinal cord. Its dimensions are 125 centimetres in height, and 70 centimetres in width, or about 4 feet by 2½ feet. The different cortical areas are represented by numerous small corks distributed in systematic order. The larger basal nuclei occupy appropriate positions. The medulla and the upper part of the spinal cord are made up of ganglia and wires of different colours. The several columns of the cord, each distinguished according to its function by a special colour, lead to their appropriate ganglia of corresponding tint, or to the areas in the cortex marked by similarly coloured corks. Thus, in the anterior and lateral columns the motor fibres can be traced to the anterior and lower portion of the medulla, where they decussate, through the pons to the internal capsule, where, between the optic thalamus and the caudate nucleus of the corpus striatum, they radiate to the cortex; here they are seen to originate chiefly from the convolutions about the fissure of Rolando; from a point where a red ball is situated, a red motor fibre descends to the anterior or lateral column. Each column of Türck is shown in relation with the posterior part of the lateral column of the opposite side. The posterior columns, coloured blue, are represented as forming the posterior third of the internal capsule, and passing to the corpora quadrigemina and optic thalami, also coloured blue, as the great centres of sensation. The external portion of the lateral columns, coloured green, lead to the cerebellum, decussating near its superior surface. The yellow fibres place the basal nuclei in communication with the cortex; the white fibres forming the corpus callosum are purely commissural. The columns in the cord are thus represented in precise correspondence with the arrangement given by Flechsig and endorsed by Charcot and Hammond. A model of this kind, and on such a scale, would doubtless prove useful to the student, who often experiences no small difficulty in obtaining, from piecemeal dissection and reading, a satisfactory grasp of the structure, function, and relationship of the several paths and centres of the cerebro-spinal system.

COMPROMISE OR CONFLICT?

In March last the President of the Royal College of Surgeons called a meeting at the College "to report to the Fellows and Members the alterations in the Charters proposed by the Council, and to receive from them any suggestions or recommendations with respect to them, or *any other alterations* in the Charters which they have to offer for the consideration of the Council." (The italics are our own.) The ill grace with which the "other alterations" offered by the meeting on this occasion were subsequently received will be still fresh in the recollection of our readers. Largely in consequence of this, and as the outcome of a general feeling of dissatisfaction which has been slowly but surely springing up, Associations of the Fellows and of the Members were formed with a view to protest against this irresponsibility of the Council as at present constituted, and to take such further steps as would secure for their opinions more consideration from the Council, and give them a more direct share in the management of the College. The Association of Fellows was quickly organised, and besides having the good fortune to secure Mr. Pollock as president, it soon numbered within its ranks some of the most active of the younger Fellows, both metropolitan and provincial, and obtained a large amount of tacit support, even from within the Council itself. A sub-committee was formed to consider the present Charters, and to propose such alterations in them as seemed called for by the spirit of the times. A fortnight ago we were enabled to publish the result of their labours, and this week we have the pleasure of recording that their recommendations have, with a few unimportant alterations, been enthusiastically adopted by the Association at large. It is also not improbable that the Members' Association have been at work on somewhat similar lines, but all the sign of activity they have yet given, has been an ill-advised and entirely gratuitous petition to Mr. Gladstone for the parliamentary representation of the medical profession.

We have already expressed our opinion that the new recommendations are good in themselves, and that the mode in which it is proposed to carry them out is at once conciliatory and constitutional. To make the office of president even more honourable and more coveted than at present, should not find disfavour even with the most conservative Council, and as long as they (the Council) nominate their chief

it is surely but a slight concession to grant that the Fellows shall elect him. Of perhaps greater moment to many existing councillors will be the proposal that the president should be eligible for re-election five times. This will, of course, lessen each man's prospect of the prize, but the honour when conferred will be enhanced in the same ratio. The president will not be bound to accept nomination more than once, and thus if the next few presidents—at present simple members of Council—feel deeply on this point they can defer to the wish of the Fellows at large by accepting their recommendations, and, at the same time study their own and their colleagues' feelings by declining to serve as president for more than one year. In a very few years all those councillors who have been elected under the old *régime* will have passed the chair, and gradually the new system of election by merit and re-election on account of special aptitude, will take its place among the traditions of the college. While hoping to secure the president's services for a longer period than has hitherto obtained, the Association recommend that ordinary Members of Council shall seek re-election more frequently, and instead of the three senior members vacating office, it is proposed that the six seniors shall retire, being of course eligible for re-election as at present. In this manner an indirect control of the Council is secured, for members will know that their re-election depends on their not persistently voting counter to the expressed wishes of the constituents whom they represent. As a set off, certain undignified procedures in connection with election to the Council are to be abolished, and henceforth, should these recommendations become accomplished facts, surgeons of eminence will not have to go round, or send others round, to get their requisition papers signed as to their fitness for office. In all this there looms, doubtless, a change which is thoroughly, but not violently, radical; indeed, we can hardly compliment the sub-committee too warmly on the completeness as well as the inoffensiveness of their report. To attempt to further emphasise the value of the proposed changes, or to advise their acceptance by the present Council would be but to repeat what has been said often enough in these pages already; to go further, would bring us within a measurable distance of language which, though by some called "warning," might by others be regarded as "menace;" while we much prefer to leave the subject to those whom it concerns to quietly work out its own effects.

The growth of the principle of direct and responsible representation of the masses in the government of the country has been slow but steady; and the present political crisis shows the hold which it has gradually taken on the people. If irresponsible control is bad for the country at large, it is bad also for individual corporations. Moreover, as surely as a country or a corporation falls foul of its subjects, so surely will evil result, whether good be ultimately gained or not. On these questions of domestic reform, the profession, we must admit, has appeared singularly indifferent, but in this matter as in others, it is the law-abiding quality which distinguishes the Anglo-Saxon race, rather than indifference to the subject matter that has been at the bottom of their quiescence. Besides, the very nature of the calling we all exercise renders combined action difficult of inception and individual effort both thankless and ineffectual. Now, however, the stone has been set rolling, and organisations have been called into existence which are determined by combination to secure that which individual effort failed to accomplish. In the very fact, however, that there are two distinct reforming bodies at work, lies a source of weakness. For it implies divided and diverging interests. The Members' Association have not yet given much sign, and it is not possible therefore to say what they are aiming at. The Fellows, following precedents which were inaugurated when the higher grade was first started, jealously reserve to themselves not only the right to sit on the Council, but also to elect the Council. They concede to the Members the somewhat meagre right of attending the annual meeting; but Fellows alone, who number scarcely one thirtieth of the entire corporation, are to be trusted with college management, while Members are quite excluded. It is true that the Fellows number among themselves most of the best surgeons in the country, that the fellowship represents a higher standard of surgical attainment, and that our chief hospitals wisely exact this standard as a qualification for office. But surely this is no reason why the great bulk — twenty-nine thirtieths—of the body corporate should be absolutely excluded form all active and direct participation in college management and representation. To be a good surgeon is one thing, but to say that because a man is not a Fellow therefore he is unfit to manage the lay concerns of his college is another. The college was formerly managed by its Members entirely, and it was the Members who instituted the fellowship "in order more effectually to promote and encourage the *study* and *practice* of the said art and science of Surgery." The earliest Fellows were self-elected, and so late as the last Council there were two honorary fellows in office whose names stand high even among the foremost. No better proof could be given that it is not the diploma but the man whom we must chiefly honour.

The present Council will doubtless take ample time to consider the recommendations which will soon be formally presented by the Association of Fellows; they certainly ought not to stir in the matter of the Charters until the Fellows' recommendations have been further discussed, it may be in public meeting. Meanwhile, if the Members will bestir themselves, let us hope that, in drawing up their recommendations, they will act with as much energy, but with as much moderation and good sense as the Fellows. We have dealt chiefly with the foregoing points, the constitution of the Council, as the corner stone of the whole movement. The appointment of a treasurer, for instance, or of the examiners, or the concession of an annual meeting, are minor details as compared with the mode of election, and the tenure of office of the Members of Council. Given a responsible instead of an irresponsible Council with a president elected by a general vote, for a term of years, instead of for one year and by rotation, and the rest will follow as a matter of course. This is not the time or place to vindicate the right of the Members to a seat on the Council of the College;

but we may express a hope that the two associations will work harmoniously together, and that the now more powerful because more compact and less scattered body of Fellows will use the privileges from which in times past they ousted the Members with a due consideration to the prosperity of the profession, and not for the advancement of personal interests.

DR. KOCH AND HIS CRITICS.

Dr. Koch has published a reply to some of the objections which have been raised by his statement that he has "discovered the cause of cholera" in the so-called "comma-bacillus." Dr. Koch endeavours to deal with the objections of those who point to the fact that he is false to the principles laid down by himself in so many words at an earlier period of his career as a bacteriologist. Dr. Koch *formerly* stated (and all men of a scientific habit of mind must agree with that statement) that no micro-organism could be justly declared to be the cause of a disease, until the organism had been "purely cultivated" and the disease had been produced by the inoculation of a healthy animal with this "pure culture." Dr. Koch *now* calls those persons who hold this reasonable doctrine "sceptics," and in a somewhat flippant manner states that he hopes to convince them by experiments which he is *now* (too late!) conducting similar to those of Professors Reitsch and Nikati.

It is too late for Dr. Koch to convince any true scientific sceptic. The man who has rashly committed himself to such public assertions with regard to the cause of a phenomenon, cannot be subsequently accepted as a witness in his own favour. As soon as Dr. Koch publicly declared on insufficient data that he had discovered the comma-bacillus as the cause of cholera, and without any reserve insisted on using his authority and position to force upon the public a mere hypothesis as though it were a demonstrated or even a highly probable conclusion, then and there Dr. Koch put himself out of court as a witness of new facts in support of his contention. Others may produce the record of experiments in order to establish Dr. Koch's hypothesis, but he himself is so terribly involved in the issue that we cannot accept his judgment on such delicate experiments as those which he now is anxious to quote in favour of his view. *Vestigia nulla retrorsum*!

In reply to Dr. T. R. Lewis, Dr. Koch apparently wishes us to believe that he knew all along of the common occurrence of "comma-bacilli" in the mouths of healthy human beings. It is difficult to believe that Dr. Koch would not previously have mentioned these normal comma-bacilli and have pointed out how they differ (if they do differ) from the cholera comma-bacilli, had he been acquainted with them. Dr. Koch states that the normal comma-bacilli of the mouth differ from those of cholera in regard to the conditions favourable to their artificial cultivation. *When* did he discover this? He reproaches Dr. Lewis with not having made such artificial cultivations. *When* did Dr. Koch make such cultivations of the comma-bacilli of the mouth himself? Surely it was *his* business to show that the hypothetical cholera comma-bacillus was distinct from the closely similar comma-bacillus of the mouth. Yet we find no allusion whatever to the comma-bacilli of the mouth in Dr. Koch's reports or in the address to the Special Medical Congress in Berlin. Either Dr. Koch did not know of the existence of the comma-bacilli of the mouth or he suppressed all mention of them when he endeavoured to obtain credence for his extraordinary assumption that a comma-bacillus is the cause of cholera.

There will be no difficulty in producing experiments *now*, which will seem to prove that the cholera-comma and the normal mouth-comma behave differently. It will not be difficult to produce symptoms like those of cholera, by injecting cholera-commas into guinea-pigs or rabbits. This kind of experiment is so delicate that it may easily be allowed to take a course favourable to the views of a prejudiced experimenter. That is the pity of it. Dr. Koch has sacrificed for a momentary notoriety the irrecoverable position of a trusted scientific observer. He *must* be for the future (he has so willed it) a prejudiced experimenter. He has the fearful responsibility on his shoulders of his premature claim to a "discovery," of his unfortunate attempt to force his shadowy hypothesis of the comma-bacillus upon Europe as a solid result of scientific method, and this must render all his work on this subject for the future rightly liable to suspicion and doubt. Though we may credit him with perfect sincerity, we can never regard him as otherwise than hopelessly biassed.

MEMORIAL AND MANIFESTO.

A memorial is always in some sense a manifesto—an utilisation of a particular and concrete circumstance to emphasize a general and abstract belief. The monuments in Westminster Abbey, the statues sprinkled about our streets are quite as much embodied creeds as memorials of individual excellence; indeed they are to us of value in direct proportion to the modern acceptance of the belief they represent. The groans with which a certain tableau in Monday's pageant was here and there received, incline one to believe that nowadays a monument to Wat Tyler would in most quarters be regarded with much more sympathy than a statue of the loyal Lord Mayor who killed him. Every subscriber, then, to a memorial which he wishes to be lasting, should ask himself not so much whether the act or the life which he would commemorate is worthy of commemoration, as whether the emotion and admiration it has aroused in him are such as belong to all time and to all humanity, or are only incidental to a gust of passion which even he may live to smile at. Applying this criterion to the memorial by which it is proposed to perpetuate the memory of Dr. Rabbeth, we think we may safely say that neither the subscribers nor their posterity are ever likely to condemn as sentimental or ephemeral the feelings which are prompting that memorial. At no period in the world's history has there been a time when self-abnegation has failed to arouse admiration, and it will be a sad day for the human race when it ceases to be applauded. In fact, it is the universal validity of this feeling which is the main justification for commemorating the

noble but by no means unique, example of self-sacrifice which has recently occurred in our ranks. That there are many young men and old in the profession who have done over and over again what Dr. Rabbeth did, without incurring death, and without even thinking that they were doing anything particularly heroic, does not at all detract from the moral value of our dead comrade's act, or justify us the less in worthily commemorating it. And this is clear enough if we realise that in subscribing to the memorial we are paying our devotions quite as much to the inward grace of self sacrifice as to the outward manifestation of it by Dr. Rabbeth.

This view of the case has been already put forward by Sir William Gull, both in his letter to a contemporary and in his remarks at the meeting which was held at King's College last week, and it is one which, we believe, will be universally welcomed by the medical profession. Accepting it, they will see in the memorial a timely opportunity of emphasizing both for themselves and still more for the public the ideal they have of the spirit in which the medical practitioner should approach his work. That many of us, perhaps most of us, often fall short of this ideal is no reason why we should not seize the opportunity of making a confession of our faith. An ideal is never, and is perhaps not meant to be, universally acted up to. If it were it would cease to be an ideal. An ideal must necessarily be above the reach of ordinary human nature; but the higher the ideal, the higher will be the average of individual excellence. It is the pride of our profession that, almost unknown to the public, there are so many amongst us who do reach, or fall but little short of, the ideal. Every medical practitioner must always be ready to risk his life at the call of duty, and the proportion of them who show themselves willing to go further, and to encounter risks beyond those which strict duty entails, is happily not small. Every day almost brings us intelligence of medical men who have fallen at the post of duty. Here, for instance, are two examples, selected from this week's cuttings :—"The *Gazetta Med. Lombardia* states that out of one hundred and thirty practitioners working under the Red Cross Society during the recent epidemic of cholera at Naples, twenty fell victims to the disease." "The *St. Petersburg Med. Wochenschrift* records the death of Dr. Gussew, a young Moscow physician, from diphtheria, contracted whilst examining the throat of a child suffering from that disease. The child coughed some diphtheritic *débris* into his face, and though he washed it away carefully, he was seized with fever on the same day, and on the third day after died from well-marked diphtheria." The public forget or ignore these risks, and the spirit of self sacrifice which leads them to be cheerfully encountered. They are ready enough to cry out upon us if we ask what appears to them too much in the cause of science and humanity, but they have no eyes for the merits of those who surely according to their own showing give too much in the same causes. Who can blame us then, if in testifying to our esteem for a dead colleague, by founding a memorial of him, we at the same time make it a manifesto of the ideal which we strive after and which we not seldom reach?

REVIEWS AND NOTICES OF BOOKS.

A NON-CONTAGIONIST ON CHOLERA.

Dr. Chapman's article which while purporting to be a review or criticism of a number of works on the subject is in reality a mere reiteration of the writer's peculiar views on the pathology of cholera, which he holds to be a neurosis, directly produced by excessive stimulation of the ganglionic system of nerves and for which the only rational treatment is the ice bag. Whatever may be thought of the taste displayed in the choice of a non-medical quarterly for the discussion of pathological questions and in the frequent and obtrusive mention of "my discoveries" and the like, our main quarrel with Dr. Chapman is that he misrepresents the opinions of others and then holds them up to ridicule. We know that some Indian medical officers of high authority do not believe in the communicability of cholera, and that the official positions that several of them occupy at the present time give prominence to their views; but while many others of at least equal scientific standing hold strongly by the opposite opinion, it is to say the least unfair to ignore them. On the other hand, it is really unpardonable to represent the recent panic displayed by the populations of Italy and southern France, the *cordons sanitaires* and absurdities of fumigations and quarantines as the logical consequence of the views held by nearly all English and German, and not a few of the highest French authorities. Instead of attempting to explain away the accumulated evidence of the transportation of cholera, he says "it is *dogmatically* affirmed to travel from one district or from one country to another," and so on, whereas in India he tells us "the clothes of such patients are not burnt or even fumigated; and all persons are free to go in and out of cholera districts without let or hindrance." So they are, and so we may remind him the natives crowd in the houses of small-pox patients, and appropriate their clothes without fear but not without the natural consequences.

Dr. Chapman's theory of cholera, briefly stated in his own words, is that "all the symptoms are due to a simultaneous and abnormal super-abundance of blood in, and excessively præternatural activity of, both the spinal cord and the sympathetic nervous centres," that "so far from those related to the intestines being profoundly depressed or exhausted, they are in a state of the most extreme and tumultuous activity," and he quotes Dr. G. Johnson to the effect that the profusion of epithelial cells in the evacuation "can only result from a very active vital effort." These phenomena he attributes to stimulation of the cerebro-spinal nerves, while he explains those of the algid stage by an excessive constriction of the entire arterial system through extreme stimulation of the sympathetic; and lastly, the *post-mortem* contractions of the muscles and the early advent of rigor mortis by the return of the blood to the muscles consequent on the exhaustion of the sympathetic centres. All this is very ingenious,

[1] "The non-contagiousness, causation, and scientific treatment of cholera."—By John Chapman, M.D. The "Westminster Review," October, 1884.

but even admitting it to be a full and satisfactory explanation of the immediate cause of the phenomena of cholera, it is but a statement of the *modus operandi* of the essential cause of the disease, not of the cause itself. In fevers in which the existence of a material cause is indisputable. cerebral muscular and other phenomena are manifestly due to the action of the poison circulating in the blood on and through the nervous system and we cannot assent to the assertion that "mental emotion exerts no influence on the progress and termination" of these diseases, notably typhus.

Dr. Chapman maintains that heat *per se* is the immediate and most potent cause of cholera and diarrhœa, in virtue of the stimulation it exerts on the spinal and sympathetic nerves. But if so, why is cholera still unknown in Australia where the heat of summer is intense; and how can we explain the prevalence of cholera in Russia far into the winter, though both facts are easily explicable by the theory of a material poison? Why, again, does cholera never break out on board vessels at sea in the tropics or in the passage from England through the Red Sea, the hottest spot in the world? Surely it is far more reasonable and simple to assume that high temperatures set up changes in the organic pollution of the soil which favour the development of the causes of diarrhœa and of cholera if that be introduced from abroad. One is almost ashamed to waste words in combating such a hypothesis, but the way in which Dr. Chapman presses the well-known story of the Southwark and Lambeth Waterworks into his service is even more ridiculous. If the imbibing of foul water increased the sensitiveness of the nervous centres of Londoners to the effect of heat, why did the immediate consequences in the shape of cholera appear only on two occasions and not in seasons equally hot? If Dr. Chapman would be content to work out his theory as a contribution to the pathology of cholera, he might earn our thanks, but the attempt to elevate it into a *causa vera et sola* lands him in absurdities and worse.

Transactions of the American Surgical Association. Edited by J. Ewing Mears, M.D. Philadelphia: Blackiston, Son and Co., 1883, pp. 568.—This is the first volume of the transactions of an Association founded in 1881, the object of which is to unite into one harmonious whole such of the 60,000 medical men in the United States as practice and teach surgery proper. The book before us contains the names of the founders of the Association, the lists of officers nominated at the first and subsequent meetings, and the addresses which are usual at such preliminary meetings; wherein are detailed the objects of the Association, and the lines on which it is proposed to work it. That the Association has prospered there can be no doubt, in presence of the volume before us, and that it has a good *raison d'être* will be admitted when the large questions in surgical pathology and practice, which are still unsettled, are borne in mind. The volume contains 32 essays on various subjects, with the discussions to which the papers, when read, gave rise. The authors are thoroughly representative of the various medical schools in America, and among them are included some of the best known names in surgery. Listerism is discussed from several different standpoints; it appears to have obtained a firm footing, and to be largely adopted throughout the entire continent. There is an admirable monograph extending to 100 pages, on "Intra-capsular Fracture of the Femur," with special reference to bony union, by Dr. Senn. He unites all the evidence both for and against the possibility of bony union, and shows that "the number of well authenticated specimens has been gradually increasing, and the knowledge derived from clinical observation and experimental investigations on this subject during the last few years, can leave no further doubt pertaining to the production of bony callus in intra-capsular fractures." Such a conclusion is of great importance in the interests of patients suffering from this accident; for it will induce surgeons, even more than at present, to be anxious to secure that co-aptation of fragments which is of course the *sine quâ non*. Dr. Senn concludes his article by a section on "Treatment." He suggests the following points: (1) Immediate reduction and co-aptation of the fracture under an anæsthetic. (2) Fixation with a plaster of Paris splint. (3) Lateral pressure. (4) Direct fixation of fragments by bone pegs. This section is full of interesting detail, to which we must refer our reader, as it is incapable of useful abridgment. Another interesting subject worked out in the same spirit—that of testing the correctness, or incorrectness of generally accepted doctrine on given points in surgery—is that of "Foreign Bodies in the Air Passages: a Study of 1,000 cases to determine the propriety of bronchotomy in such accidents," by Dr. Weist. The author considers as one of the evidences of the advancement of surgical science "that its *dicta* no longer emanate from an individual, but are formulated from the united experience of the profession." This study has taken several years. Not content with recorded cases, the author issued a circular to the profession in America and Europe, asking for particulars of any unpublished cases. It is in this manner that Dr. Weist was able to get together the unprecedentedly large number, 1,000 cases, on which to formulate his conclusions. The outcome of this study goes to upset the usually accepted doctrine "that the presence simply of a foreign body in the air passages determines the necessity of bronchotomy." And that "in many cases where it is certainly known that the trachea or bronchus contains a foreign body, the patient will be more likely to recover if trusted to the chance of spontaneous expulsion than he will be if subjected to operation." We must acknowledge ourselves as "persuaded against our will," and therefore of the "same opinion still," Dr. Weist's conclusions and statistics notwithstanding. In the first place, the death-rates of operated and non-operated cases are not strictly comparable. Dr. Weist tells us that in a given number of cases spontaneous expulsion of the foreign body occurs. Well and good, there is an end to the matter as regards these cases. Of the remainder however an operation is performed and 73 per cent. recover—a goodly percentage surely! The remainder die (27 per cent.). In order rightly to estimate this latter percentage we ought to know the cause of death, and whether death was due to, or in any way accelerated by, the operation: further, whether the *foreign body was got out* at the operation, or whether (as in a case mentioned by one of the speakers in the subsequent discussion) it was left behind; and if left behind, whether its position was accurately determined. To leave behind a foreign body, "moving during the act of respiration and appearing at the opening," is not a surgical proceeding, and cannot be used for purposes of surgical argument. We still feel, therefore, that in all cases where a foreign body is known to have penetrated the air passages, and not to have been spontaneously expelled, the correct practice is to open the trachea and endeavour to get it out. If the surgeon is unsuccessful, we do not think that the case will have been materially complicated by the operation. The space at our disposal will not permit us to enter into further detail, or to notice any of the other equally interesting papers. The volume is well published, and if its successors are equally good, they will form a valuable addition to our surgical literature.

Manual of Diseases of the Ear, for the use of Students, &c., &c.; by Thomas Barr, M.D. Glasgow: James Maclehose and Sons.—There is no lack of text-books for the student desirous of studying diseases of the ear. Another has been added to the list in Dr. Barr's work. This book will take its place with the other standard works on the

subject. For those wishing to obtain a general knowledge only of aural surgery, Dr. Barr's book is too voluminous; but those wishing to study the subject more fully, will find it a very valuable treatise. The book is divided into four parts. In the first part the opening chapter on the method of examining the ear is exceedingly well written, giving the fullest instructions very clearly and intelligibly, and we consider it the best part of the book. Chapter II deals with the causes of ear disease, and Chapter III with affections of the nose and throat in their connection with diseases of the ear. In this chapter the author treats more fully of the relation of naso-pharyngeal catarrh to ear disease than is usual in English text-books of aural surgery. The relation of adenoid vegetations in the roof of the pharynx to chronic deafness in children is very much overlooked, even by many practitioners well acquainted with diseases of the ear, and Dr. Barr has done good service in forcibly drawing attention to the subject. Cases have frequently occurred in which even well known surgeons and physicians have assured anxious mothers that the children would "grow out of their deafness" as they grew stronger, where subsequent examination by those skilled in rhinoscopy has showed well-marked adenoid vegetations in the naso-pharyngeal cavity. The next chapter is devoted to methods of treatment, and while acknowledging the very valuable information therein contained, we question the advantage of discussing such subjects as "application of vapours or fluid to the middle ear," "paracentesis of the membrana tympani," "operative treatment of aural polypi," &c., in a separate chapter, rather than under the heading of those diseases which require such treatment. Again, the author, by describing at length the anatomy of the various parts of the ear, increases the bulk of his book without, in our opinion, adding to its value. Parts II and III treat of the diseases of the external and middle ear, and call for no special notice, except a word of praise for the very lucid manner in which the different methods of treatment are handled. Our knowledge of diseases of the inner ear is so unsatisfactory, and the differential diagnosis of pathological conditions so obscure, that this part of the work is of necessity more or less a compilation. In conclusion, we must still express a fear that the book is too exhaustive for the ordinary reader.

Tropical Trials: a Handbook for Women in the Tropics; by Major S. Leigh Hunt and Alexander Kenny, M.R.C.S., pp. 461. W. H. Allen & Co.

On Duty under a Tropical Sun., pp. 192. Second edition; by the same authors.

Both of these useful little books are intended to counteract many of the petty annoyances and personal discomforts attendant upon residence in tropical climes. The smaller volume, which has already reached a second edition, devotes over a hundred pages to diseases of tropical countries, the range of these including the commoner forms of accidents and their appropriate treatment. This volume is intended especially for the use of men. In their larger volume, "Tropical Trials," the authors address themselves mainly to women, and give much valuable information for the guidance of women in the tropics. One chapter is devoted to practical suggestions on clothing and outfit, numerous hints on many of the small items essential to comfort finding a place under this heading. Other chapters give notes on travelling by land and by water, general remarks on diet, and hints on domestic economy. As in their previous book, the authors devote more than half their space to more purely medical topics, the maintenance of health and the treatment of simple maladies being allowed nearly 200 pages; thorough and practical on all points, we venture to think that this chapter will prove of the utmost usefulness. The authors are careful to guard against the indiscriminate use of powerful remedies, their remarks on the abuse of chloral being especially to the point. For sea-sickness they recommend the use of bromide of sodium in certain cases, but are emphatic on the effect of moral control or a "pinch of resolution." These books are both written in cheerful simple language, they possess the advantage of a careful index, and we feel confident that any one resorting to them for directions in emergencies will find safe guidance for the treatment of the slighter ailments, and clear instructions as to the management of the sick room. In books so obviously intended for general use it is extremely satisfactory to find the following in italics—"*Always be sure that what you do is in strict accordance with the instructions of the medical man who is attending the case.*" "*Never administer a medicine without first reading the label.*" These two sentences sufficiently indicate the sound common sense and excellent healthy tone of the two volumes.

The Technics of "Massage;" by Albert Reibmayr. With 126 woodcuts. Vienna: Toeplitz and Deutieke, pp. 136, 1884.—The little book before us is an excellent, if brief, treatise on the art of "Massage," a remedy which, though old as the hills, has not yet had an English name given to it. "Massage," however, seems likely to come once more into vogue, together with the practice of gymnasties, which are now so largely patronised, and have been carried out on such a splendid and really anatomical scale in Sweden and elsewhere. Nor, in moderation, can anything be better adapted on the one hand to keep the body healthy than gymnasties, nor, on the other, to restore suppleness to a limb or a joint that has been diseased than well-directed massage. Our author more than once adverts to the necessity of a suitably trained person to carry out massage with satisfaction to a patient. It is not every hand which can be taught; it requires a special faculty, as well as a special training. The book before us is admirably illustrated. It will prove thus useful even to those who cannot read German. The method of treating each part of the body is figured, so that there need be no difficulty, even with beginners, provided they bring the special *tact* to bear, which appears to be the *sine quâ non*. We cordially recommend the work to our readers, and could wish that it might even be presented to them in an English dress.

ABSTRACTS AND EXTRACTS.

MEDICINE.

Hay Fever.—In a recent number of the *New York Medical Journal*, Dr. J. O. Roe, treating of the pathology and radical cure of this malady, states that the first thing is to determine, by careful exploration of the nasal chambers, the exact conditions which have been the exciting cause of hyperæsthesia. Every sensitive spot should be located and thoroughly treated, until the peculiar "hay-fever sensation" is no longer experienced by the patient when these regions are touched. This sensation is unmistakable, for on touching one of these spots, however lightly, a burning sensation is felt in the nostril as though the probe were heated, and is attended by the usual reflex phenomena. When the turbinated bodies are hypertrophied, or are hyperæsthetic, sufficient tissue should be removed by Jarvis' snare or the galvanic cautery, to destroy the diseased and sensitive nerve terminals, and to obliterate the enlarged blood vessels. All obstructions to the nostrils, and all abnormal conditions of the passages, hypertrophic or otherwise, should be corrected. It is especially important that there should be no point of contact between the turbinated bones themselves or between them and the septum. Projecting bony spiculæ often exist in this region—more often between the middle and superior than between the inferior turbinated bone and the septum—and they are apt to excite irritation and thickening of the opposed mucous surface. When all offending tissue has been removed, local medication should be made to the nasal passages until the parts are healed, the chronic rhinitis cured, and the special irritability has disappeared from every portion. These radically curative measures are best instituted at a time when the patient is free from the affection, and in time to allow of a thorough healing of the parts before the date of the expected attack. It is also advisable to examine the patient from time to time during the hay-fever season, in order to discover whether any portion of the nasal mucous membrane has been overlooked, and has become

irritable—in which case the diseased tissue should be promptly and thoroughly removed. The details of treatment, &c., in four recent and successful cases are given; and the author concludes that the cause of a vast amount of annually recurrent suffering is to be found in the nasal chambers; that it can with care, patience, and perseverance be entirely removed; and "that in those cases in which we fail at first to give our patients entire relief, we know that our work has been incomplete, and that by perseverance our efforts in every instance will be crowned with success."

Elevation of Temperature in Chlorosis.—In the number of the *Lyon Médical* for May 25, Dr. Mollière gives an account of a continuation of some investigations which he has already laid before the Lyons Society of Medicine. He here summarises the results of a close examination of 30 cases of chlorosis, these being all the cases of that affection which have been admitted into his hospital service. The temperature in all these has been taken in the rectum, and without exception has been found to exceed the normal, the temperature rates having been taken morning and evening for a month or two, and even as long as eight months. The mean curve has oscillated between 37·8° and 38° C. during the persistence of the symptoms, to descend a degree as the cure approached. Occasionally there have been elevations as high as 39° or even 40° C. on the occurrence of febrile exacerbations, unconnected with other intercurrent diseases. Dr. Mollière has never met with the lowering of the temperature below the normal mean noted by Professor Peter, and this he attributes to the fact, that while his own observations were always taken in the rectum, those of Professor Peter were always taken at the surface. As Dr. Dieulafoy observes in noticing these results obtained by M. Mollière, they would almost justify the revival of the name given to chlorosis by the ancients—*febris alba virginum*. In all these cases the diagnosis has been most rigorously established, and where any suspicion of phthisis has arisen, the case has been eliminated; and in proportion as the symptoms were well marked the elevation of temperature was found to be higher. On the administration of quinine the temperature has diminished as in ordinary pyrexia, except in some cases when the temperature had been only slightly raised.

Hyper-pyrexia.—This term, says Dr. Goodridge, in the *Practitioner*, for July, includes other conditions besides fever, viz.; excessive heat-production, arrested heat-discharge, and deficient heat-regulation. As an instance of what he believes to have been a case illustrative of this last mode of origin, he quotes the case of a young man who, during an apparently mild relapse of acute rheumatism, was carried off by a hyper-pyrexia of nine hours' duration. There was no evidence in this case of special heat-retention, or increase of heat-production, and failure of heat-regulation is consequently regarded as the main cause. The patient had suffered from several debilitating influences, such as want of sleep from joint pain, chorea and impaired action of the heart. Supposing all these causes of exhaustion to act upon the centre for regulating the production of heat, the result would be an excessive production of heat such as was actually observed, and this theory would well explain its occurrence.

Movable Kidneys.—In the *Birmingham Review* for July, Mr. Lawson Tait takes the opportunity to reply to those who have expressed dissent from the views which he put forth on this subject in the pages of a contemporary a few months since. He disbelieves in a floating kidney as a thing of any pathological importance, chiefly because the cases, thirteen in number, which have come under his own observation where this diagnosis had been made have turned out seven times to be distended gall bladders, four were cases of ovarian cystomata, and two were tumours of the pancreas. The literature of the subject is for the most part not based upon *post-mortem* experience, whilst of the few cases that have been recorded some were instances where it had not been suspected during life. He is very sceptical too about a floating kidney being painful, and observes with much truth that the meso-nephron, which is the cause of the kidney being movable, is a congenital condition, and does not therefore offer any reason for such a kidney being painful.

Can Locomotor Ataxia Be Cured?—In a paper bearing this title (*New York Medical Journal*, August 30th) Dr. G. M. Hammond, after quoting cases of obvious recovery from alleged tabes; and others in which—death having supervened in the course of distinct ataxic symptoms—the *sectio* revealed congestion of the cord without any sclerosis of the posterior columns; and others in which recovery from ataxia had followed dry cupping, and the application of Junod's boot, concludes:—(1) The loss of patellar tendon reflex in locomotor ataxia is not always due to sclerosis of the posterior columns. (2) Sclerosis of the posterior columns may exist unaccompanied by the ordinarily prominent symptoms of ataxia. (3) Congestion of the posterior half of the spinal cord may give rise to most, if not all, of the symptoms of locomotor ataxia. (4) It is impossible during life to make a differential diagnosis between posterior spinal sclerosis and posterior spinal congestion. (5) Posterior spinal congestion is curable. (6) There is no evidence to show that sclerosis once existing in the spinal cord has ever been removed. (7) Those cases of so-called locomotor ataxia which have been cured are simply cases of spinal congestion more profound in the posterior half of the cord.

Transmission of Phthisis.—At the late meeting of the Hygienic Congress at the Hague, two important communications were read on this subject. In the first of these, Prof. Corradi, of Pavia, draws the following conclusions—(1) That the contagion of pulmonary phthisis is possible. (2) Prolonged cohabitation is one of the principal conditions of its occurrence. (3) Debility and all causes which diminish the power of organic resistance render it more easy. (4) The possibility of transmission through the medium of clothing, goods, &c., has not been sufficiently proved. (5) It is also doubtful whether the milk or flesh of tuberculous animals can give rise to the transmission, especially after culinary preparation. (6) That, at present, regulation of cohabitation is the only prophylactic measure that can be had recourse to. (7) Investigations should be continued in different countries, with the aid of a uniform formula. The other paper was a report from M. Vallin, on the "Danger of alimentation by means of the flesh and milk of tuberculous animals," of which these are the conclusions—(1) The tuberculosis of animals is specifically identical with human tuberculosis. (2) It has been proved that the ingestion of raw tuberculous matters may engender tuberculosis. (3) The injection under the skin, or into the peritonæum, of the blood or muscular juices of phthisical animals, is capable of determining phthisis. (4) The ingestion of the raw flesh of phthisical animals is capable, in certain cases; of transmitting the disease, and especially abdominal tuberculosis. (5) The inoculability of tubercle is not destroyed, except by a notably higher temperature than that attained by the central portions of roasted meats. (6) The milk of phthisical cows may transmit tuberculosis, and is especially dangerous when the mammary glands are tuberculous. (7) Boiled tuberculous milk is harmless. (8) In order to guard against all danger, we should, at all events provisionally, prohibit the use of meat of animals the subjects of confirmed generalised tuberculosis, with commencing emaciation. (9) The habit of eating underdone meats should be discouraged, and as a matter of security, milk should always be boiled. (10) Attempts should be made to diminish the frequency of tuberculosis in animals by choice in breeding, improved stalling, isolation of infected animals, disinfection of contaminated stalls, &c. (11) Tuberculosis of horned cattle should be ranged among contagious diseases affecting them, and submitted to the laws applicable to these. (12) Assurance societies against tuberculous cattle should be encouraged, in order to indemnify the proprietors for losses from this cause.—*Progrès Medical*, September 13.

Bright's Disease of Malarial Origin.—Dr. Atkinson, Professor of Pathology in the University of Maryland, terminates a paper bearing this title with the following conclusions:—(1) Transitory albuminuria is not uncommon in the course of malarial fevers, and is due to the intense visceral congestions characteristic of these affections. It may be present only at the height of the congestion and

recur with each return of this, or it may persist in the intervals, in which case the congestion approaches to the condition of acute inflammation. (2) In a proportion of cases, varying with locality and type, inflammation of the kidney occurs, accompanied by dropsy and the usual symptoms of nephritis. (3) The usual form of malarial nephritis is the tubal and diffuse variety, the inflammation seeming to be most intense in the vicinity of the glomerula. (4) Contracted kidney may occur from long continued or frequently repeated attacks of malarial fever, but it is quite improbable that this form ever occurs primarily as purely interstitial nephritis. (5) These changes may be induced by any form of malarial fever, though they more commonly follow chronic intermittent fever. (6) The tendency of the disease is towards recovery, but from the persistence of impaludism or intensity of the inflammation, structural changes may be produced characteristic of chronic Bright's disease from whatever cause. (7) Treatment should be directed primarily against the malarial intoxication, especially in recent cases; and a correction of this will often be followed by a gradual but complete subsidence of the nephritis. Even in chronic cases this is the point primarily to be attended to, the disease then to be treated as ordinary Bright's disease.—*American Journal of Medical Sciences*, July.

Hypertrophic Cirrhosis of the Liver.—The characteristic features of this disease are said to be that the liver is invariably enlarged, and that there is an intra-lobular growth of connective tissue. Its identity as a separate disease has not yet been established, and in the American *Journal of Medical Sciences* for July, Dr. Atkinson adds his protest against its claim to the distinction of a separate place in our nosology. The apparently new development of ducts, on which a good deal of stress has been laid, has been shown to be present also in other affections. Intra-lobular changes similar to those seen in this disease are found in some cases of congenital syphilitic cirrhosis, so that from a pathological standpoint this disease cannot be clearly separated from others. And the same holds good in regard to the clinical aspects; enlargement of the liver and spleen, and jaundice are the only constant symptoms, and these present nothing distinctive.

The Pitch of the Percussion Sound.—Most writers make no mention of the matter, and of the few who have compared the two sides, the majority say that both are exactly alike in pitch, intensity, and quality in the infra-clavicular regions. Trante and Gretmann state that the pitch is generally higher on the left side; Flint, Da Costa, and Seitz that it is higher on the right. As the result of an examination of 200 subjects, all between the ages of twenty and forty, and all being in good general health, and having symmetrical thoraces, Dr. Leonard Huntress found in 72 cases, or but little more than one third of the whole number, no difference between the two sides; in 71 the pitch was slightly higher on the right side; in 26 it was slightly higher on the left; it was markedly higher on the right side in 23, and markedly so on the left in 8 cases. It may therefore be inferred that, while it is much more significant to find the left lung showing dulness at the apex than the right, yet this is by no means proof of disease.—*New York Medical Journal*, June 14th, 1884.

Quinsy.—At a meeting of the New York Academy of Medicine, Dr. F. H. Bosworth, in the course of a paper on the Structure, Function, and Diseases of the Tonsils, said that he had long believed that quinsy was not an inflammatory process involving the tonsil; he regarded it rather as an acute cellulitis of the areolar tissue of the fauces, the red and angry appearance sometimes presented by the tonsil being always secondary and arising from its proximity to the phlegmon. From an analysis of a hundred and thirty-three cases he establishes strong grounds in favour of the old doctrine of the association of quinsy and rheumatism, arthritic or muscular. This connection was further evidenced by the frequency with which cases of quinsy aborted on the early administration of the salicylates. He recommends the use of 15-grain doses of salicylate of soda every two hours. In several cases in which the quinsy-habit had existed he had found that this remedy, employed with the earliest symptoms, had completely arrested the disease. In the course of discussion Dr. Bosworth remarked that the connection between the tonsils and quinsy was purely an incidental one, depending on the location of the former. Patients whose tonsils had been removed were quite as liable to have quinsy as those in whom the operation had never been performed.—*Philadelphia Medical News*, Oct. 11, 1884.

Tannate Injections in Cholera.—Professor Cantani, of Naples, has obtained excellent results by the early treatment of cholera with enemata of warm solutions of tannic acid. (*Centralblatt für die Medicinischen Wissenschaften*, No. 44, 1884). He used the solution in strength of 5 to 10 grammes of the acid to 2,000 of boiling water, with a little mucilage and laudanum. To ensure success he generally made the injection as high up in the bowel as possible, but found that even with an ordinary syringe the treatment was valuable in the early stages of the disease. It was especially effective during the period of premonitory diarrhœa, which was at times completely checked even after a single injection, a period of rest following of from eight to ten hours, and further attacks being cut short in a similar way. The tannate injections seemed to prevent the excessive loss of fluid by the bowel, to permit the continuance of the flow of urine and so to stave off the typhoid state and altogether to prevent the onset of the algid period. The exact mode of action of the tannic acid must remain as yet undetermined. Amongst other possibilities, Professor Cantani suggests that it has a directly destructive or abortive influence upon the comma bacilli. In furtherance of this view he made direct experiments upon artificially cultivated bacilli and found that, although not destroyed by the acid, the micro-organisms were checked in their reproduction and in their mobility for a period of from twenty-four to thirty-six hours.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 11th, 1884.

George Johnson, M.D., F.R.S., President, in the Chair.

On Expiratory Cervical Emphysema, that is, Emphysema of the Neck, occurring during Labour, and during Violent Expiratory Efforts—An experimental enquiry.

Dr. Champneys said his present enquiry was complementary to the previous one dealing with emphysema of the anterior mediastinum after tracheotomy ("Medico-Chirurgical Transactions," vol. lxv., 1882, pp. 75–86). Healthy fœtuses were used (with two exceptions) in all the experiments. Frequency.—The accident occurred in about 1 in 2,000 labours. Ætiology.—It was generally agreed that it was caused by bearing down, which is only another name for violent and prolonged expiratory efforts. It occurred during the second stage of labour, and generally appeared first at or about the suprasternal notch, from whence it might extend in all directions. Clinical course.—It was never accompanied by pneumothorax, was all absorbed within a week or so, and seemed always to end favourably. Pathological theories.—It had been attributed to rupture of the (1) bronchi, (2) trachea, (3) lung. Three autopsies supporting the third theory were given; the others seemed to be unsupported by facts. Mode of experiment.—Tracheotomy was performed, and the trachea connected by means of T tubing with a mercury manometer, leaving an open tube for inflation. Seventeen experiments were performed, some with the lungs *in situ*, others with the thorax open, others with the lungs removed from the chest. In one an attempt was made to trace the course of the air by means of a coloured gelatine mass. The conclusions from the experiments were the following: (1) The cause of emphysema of the neck during labour is rupture of the lung tissue, the air escaping near the root of

the lung, passing beneath the pulmonary pleura into the anterior mediastinum, and so beneath the deep cervical fascia into the neck. The route thus marked is the same by which air passes into the anterior mediastinum after tracheotomy (see "Medico-Chirurgical Transactions," vol. lxv., 1882, p. 75, *et seq.*, and p. 85). (2) The weakest parts of the lung are opposite the pleural reflections (*i.e.*, the spaces between the lobules and the fissures between the lobes), and especially the anterior surface of the root of the lung. (3) Pneumothorax, when it occurred during experiment, had nothing to do with the production of emphysema of the neck. The healthy bronchi and trachea are able to resist the greatest possible expiratory efforts. (4) The lungs and pleura, when quite air-tight, are freely permeable to fluids. (5) The usual rules of practice, to restrain bearing down and accelerate labour after the production of emphysema of the neck, are sound. (6) The accident would seem to be noted in about 1 case in 2,000, but it is not improbable that slight cases are overlooked. (7) The air emerges from the thorax along the great vessels, but may not become superficial till it has travelled higher up. (8) The emphysema of the lower part of the trunk, usually connected with rupture of the uterus, belongs to quite a different category and is generally associated with a fatal result.

Dr. ANGEL MONEY regarded toughness of the pleura as the reason why extravasated air took the course it did. He had been much struck with this toughness, and the pericardium possessed the same quality.

Mr. GODLEE asked what reason the author had to assume that the anterior mediastinum was more compressible than other surrounding parts. The only reason he could suggest was that the whole mass might be pushed up slightly through the upper aperture of the thorax. Given a rupture of the lung, he thought, on anatomical grounds, that the air would take the course it did, independently of other causes. Would it not be well to repeat the experiments on the adult body?

Dr. POWELL questioned the propriety of the term "pleural reflections." As to the "weak spot," had not Dr. Champneys in his experiments used a pressure which was far beyond anything that could occur during life? His subjects, too, being fœtuses, were the results, he would ask, comparable with normal expiratory effort?

The PRESIDENT asked whether as chloroform diminished muscular effort, the accident might not be altogether avoided by anæsthesia.

Dr. O'CONNOR asked whether there were any other weak spots.

Dr. SYLVESTER felt indebted to Dr. Champneys for his paper. He had come chiefly to learn whether it was possible by any voluntary effort for a person to inflate his own body. He believed certain lizards could do this. The question interested him in connection with his own experiments and trials to save life from drowning. But he had not got much help from the paper, which he regretted. He feared that there was not any prospect of a satisfactory answer in this direction.

Dr. CHAMPNEYS replied at some length, in answer to the President, that anæsthesia would probably ward off the accident, but it occurred, unfortunately, unexpectedly and accidentally. He had used fœtuses in his experiments for the simple reason that they were more easy to obtain than adult bodies.

Dr. CAYLEY showed a preparation illustrating gangrene of the base of the lung, in a case of cancer of the lower end of the œsophagus and adjoining part of the stomach, which had ulcerated through the spleen and diaphragm into the lung. Mr. Gould, in consultation with Dr. Cayley, had opened and drained this cavity, with considerable relief of symptoms.

The Society then adjourned.

ELECTROLYSIS IN NÆVUS.—In all but cases of very large and invading erectile tumour, Dr. Delore, of Lyons, considers that electrolysis is by far the most preferable method of treatment, acting as it does with great precision and certainty, and leaving only slight cicatrices. The best apparatus for its application is that of Chardin.—*Compte Rendu Général*, October 1.

MEDICAL CONSULTATIONS.

No. III.

OUR HANDICAPPED HOSPITALS.

SCENE.—*A room at the Sydenham Club.*

DRAMATIS PERSONÆ.

F.R.C.P.—*A Consulting Physician.*

F.R.C.S.—*A Teacher of Anatomy.*

And subsequently,

M.R.C.P.—*A Medical Lecturer.*

F.R.C.S. (*Coming in.*) Ah! this is fortunate. I scarcely thought to find you here. I called at your house this morning, just after you had left, and they told me you had a country journey.

F.R.C.P. True, I was to have gone down to Lord A——, had in fact already taken my ticket, when a telegram was handed me stating he was dead. I had put off my other engagements, and here I am, stranded. Fortunately, it has given me the rare pleasure of a talk with you. You called on me?

F.R.C.S. Yes. I am very anxious to obtain your support for a movement in which I and other hospital teachers are deeply interested. We have at last made up our mind that if London is to maintain its position as a centre o medical education, we absolutely must be able to offer our students a fair chance of getting a degree. Our present idea is to petition the University of London to modify their medical examinations.

F.R.C.P. Lost labour, my dear friend!

F.R.C.S. Well, we are not very sanguine. But we have decided that that channel must first be sounded before we try others, and we hope that your influence with th Senate, if you would be good enough to exert it, would go a long way towards obtaining what we want.

F.R.C.P. Possibly; in fact, more than possibly. But it would be assuming a great responsibility.

F.R.C.S. You are not unused to responsibility.

F.R.C.P. Yes, that is very true; but one does not court it.

F.R.C.S. I hardly think you would wish to avoid it, if you saw things from our standpoint. The question is a most momentous one.

F.R.C.P. O, come now, there you surely exaggerate. A mere question of titles, a matter of leather and prunella, eh?

F.R.C.S. Indeed, we feel it to be a most pressing matter, not merely for our own interests, which are a secondary consideration, but because it nearly touches the welfare of medical education in this country. We are losing our students steadily. The yearly entries are declining and our senior men are constantly tempted away to Edinburgh, to Aberdeen, to Newcastle to finish their curriculum. Surely it cannot be to the interests of the students themselves to lose the benefit of the best clinical talent in the country—that of your own successors for instance.

F.R.C.P. True; but are not my successors a little to blame? In my time no student thought of going away for his degree. To have been taught by us outweighed in his mind the attraction of any title. I cannot help thinking there is something a little artificial in your agitation. Why is it burst upon us so suddenly?

F.R.C.S. Why? Because our students are beginning to find out that it will pay them to have a degree. But perhaps I had better read you this rough draft of an address to the London Senate.

F.R.C.P. Pray do.

F.R.C.S. (*Reading.*) "We, the past and present teachers at the London hospitals, beg most respectfully to draw your attention to the difficulties under which medical education in London is at present labouring. At no time, we believe, have the appliances and organisation for teaching been more complete, or the zeal of the teachers more manifest. But, in spite of this, the entries of new students, so far from increasing, show a steady diminution. We think it may be fairly concluded that the main, if not the sole, cause of this decline is connected with our inability to promise the majority of our students a fair chance of obtaining a medical degree, and with it the title of "Doctor." While freely admitting the inestimable services that your University has rendered to the cause of medical education, the high character of your examinations, and the unquestioned ability of your medical graduates, we humbly beg to point out that the conditions under which your medical degree is granted are such that not more than a very inconsiderable percentage of London students can hope to obtain it, while of the remainder an ever increasing proportion leave the well-found clinical schools of the Metropolis to finish their education elsewhere. The average number of students who annually obtain your M.B. degree is about forty. Assuming that thirty-five of these come from London schools, and that the average annual entries at those schools are less than 600, it is obvious that only six or seven per cent. of our students, at the outside, will be fortunate enough to graduate in medicine at your University. We would further point out that during the years 1875–1882, while 1,511 students entered for the preliminary scientific examination, only 252, or less than 16 per cent., succeeded in passing the 2nd M.B. In the meanwhile other universities are offering increased facilities and we believe that the proportion of English students who obtain a part or the whole of their medical education away from London is certain to undergo steady increase, unless an arrangement is made whereby they can obtain a degree in London. Under these circumstances, we beg to submit the whole question to your earnest consideration."

F.R.C.P. A very politic address. And you wish me to add my signature?

F.R.C.S. We should be glad of it, of course. But we hoped for more from your personal influence with the members of the Senate.

F.R.C.P. Really, I have hardly thought out the question. I cannot promise anything now, but I will see, yes, I will see. At present, your movement strikes me as a little artificial. I am, I admit, somewhat old-fashioned in my views as to the title of "Doctor." I think it ought to connote a really learned man, a man of culture and erudition. It should not be distributed broadcast to every student who has lounged through a medical curriculum. Let us beware of Americanizing our institutions.

F.R.C.S. Unfortunately we have to deal with facts. Others will distribute the M.D. broadcast if we do not. As it is we are heavily handicapped, and are daily dropping behind in the race.

F.R.C.P. I am grieved to hear that. But are you sure that you are making the best of your advantages, or are you, pardon me for the comparison, only unskilful workmen quarrelling with your tools? I cannot but think that if you London teachers really made the most of your unrivalled opportunities and your unquestioned abilities, you would have no reason to fear the rivalry of anyone. Why should not the boast "I am a London man" be able to outweigh any title that Edinburgh or Manchester can give? I should be inclined to call yours a door-plate policy.

F.R.C.S. We do not wish to make every student an M.D. All that we contend is that the London University, by modifying its examinations, should open its degree to a much larger proportion of students than at present, say to sixty instead of six per cent., so that any student of average application and ability might fairly hope to obtain one. Of course, if the University insists on keeping its doors closed, we shall have to try elsewhere.

F.R.C.P. Well, well, I will think over it and see how I can help you. (*To* M.R.C.P., *who has just come in.*) How d'ye do. We are talking of a question on which I am sure you will have something to say. Our friend here wants to convert the sour grapes of the London M.D. into sweet-water ones, to pull down the boughs within the reach of men of low stature. That is a mission which will just suit a root and branch reformer like you.

M.R.C.P. Yes, I have strong views on the question, as F.R.C.S. knows, but I think that he and his friends are entirely on the wrong tack. They will get nothing from the London University, and it is waste of time to try. We can apply no pressure to it, and this is a question where nothing will be gained without pressure. Its medical graduates elect a member of the Senate once in, say, ten years, and even then cannot make sure of his vote. I would give the University of London a long rope, and set to work on bodies who can be made more amenable. I am heartily in favour of a practicable London degree, but I would get it from the Colleges. There the London teachers can apply pressure. Why if they were only united they could elect a President and Council at each College pledged to the lips to get the necessary powers from Government. If they are in earnest they should stand no nonsense from the Colleges, but insist on their doing what they wish. Never mind the woman difficulty, let the women have the degree as well, and welcome.

F.R.C.P. My good friend! Would you make the whole policy of the Royal Colleges turn on a paltry question of a degree? What! risk ruining two time-honoured institutions that a few score boys may have handles to their names? As the Germans say, in emptying the bath, you risk spilling the baby. You would burn a house to grill a pork chop. But I knew we should have something incendiary from you.

M.R.C.P. You no doubt can afford to look upon the matter frigidly, but to us it is likely to turn out a question of vital importance. It is not so at present, but it will become so; and we who look far ahead cannot contemplate the prospect of empty lecture-rooms, of diminishing fees, and lessened opportunities of good work without dismay. Five years hence, you will see, everybody will think as we do. Why wait till half a dozen London schools have closed their doors, before taking action? We do not ask for much. We only ask that London shall have what every other capital in Europe has. Why should we lose our livelihood because a bevy of old gentlemen in Burlington Gardens have decided that a man shall not get their degree unless he can work a torsion-balance or dissect a cockroach? Their system is ridiculous. Going up for their examinations is for all the world like climbing a greased pole; if you fail to touch the top even by a few inches, you slip right down to the bottom and have to wait a year before you can try again. We should not mind a stiff examination in purely medical subjects, but what we do object to is to see men fruitlessly wasting, on collateral sciences, time and energies which are all wanted to make them decent practitioners. We must and will have a degree, and if the London University stands in our way, so much the worse for it. We cannot apply pressure to it directly, but we can advise our students not to go up to it.

F.R.C.P. Ah! my dear friend, if you London teachers were united, what is there you could not do? But you know you are not, and all you attempt will come to nothing.

Take an old man's advice, and don't threaten until you are sure that you can perform.

F.R.C.S. You must not judge us London teachers by the past. Circumstances are at last forcing us to be united, but we threaten nothing. M.R.C.P. represents our extreme wing, but I assure you that, as a whole, we shall do nothing rash. For my own part I believe that the Colleges will never consent to apply for fresh powers, but they may yet find a way of meeting our wishes. I, for instance, see no reason why they should not let their licentiates put "Dr." on their door-plates. Or they might even come to an arrangement with Durham, by which its degree would be given with the combined licence, on condition that three months, or less, should be spent at Newcastle, and perhaps a part of the examination conducted there. There are many ways of getting round the difficulty without threats or bluster. Who can tell, for instance, that the whole subject may not be taken out of our hands, and a real teaching university be founded in London which would fully meet our requirements? The great thing is to know what we want, and to be united in our resolve to have it.

F.R.C.P. There you speak like a sensible man. Remember this, that in our profession if you want anything, to use threats is exactly the way not to get it. We are conservative, and detest change. We are sensitive and resent the very whisper of coercion. But we are, withal, careless and easy-going, and yield before silent, persevering, united effort. As for the London University, if you take my advice, you will not waste time upon it.

GENERAL CORRESPONDENCE.

THE PHYSIOLOGICAL DEPARTMENT AT EDINBURGH UNIVERSITY.

[To the Editor of the Medical Times.]

SIR,—I am sorry to observe that your Edinburgh Correspondent, in your issue of October 11th, and in that of to-day, has furnished your readers with several misrepresentations regarding me, and the department of the University which I direct. I might treat his communications with the contempt they deserve, but I prefer to expose their injustice.

With reference to the resignation of my late assistant, Dr. Gibson, he says: "It is not satisfactory to find that one who proved himself a capable and popular teacher, and who promised well as a physiologist, should have had so little encouragement to stay among us as he appears to have met with. Under circumstances like this, the foundation of a school of physiology in Edinburgh seems a remote possibility." The frequent changes in my staff of assistants has been a misfortune to this school, in so far as able young teachers have been removed from it just when they had attained to some considerable experience. Professor Stirling, of Aberdeen; Professor De Burgh Birch, of Leeds; Professor Hayecraft, of Birmingham; and Professor Anderson Stuart, of Sydney, were successively my assistants during my first eight years as professor here. I suppose no other school in the country can claim to have sent out four young trained professors of physiology within eight years. My late assistant, Dr. Gibson, who was with me during the two past years, received last July an invitation to accept a chair of physiology in a Canadian University, which he declined. Shortly afterwards, he was virtually offered a valuable lectureship on physiology in London, which he would have accepted, had private influences not induced him to return to Queensland, his native country. Your correspondent ought to feel gratified that physiologists educated in Edinburgh are so much in demand in the medical schools of this country, and its colonies, and in place of his uncalled for sneer about "so little encouragement to stay among us," he might condole with me on the consumption of my time required in educating physiologists for other schools. Of course, it is a source of gratification to me to see my assistants gain independent and important positions, and to feel that although they are no longer helping the Edinburgh School, they are now representing that school and continuing its methods of tuition elsewhere.

The mean attempt of your correspondent (Oct. 11) to incite my students to worry me about writing a text-book, has not yet produced the result he seems to have hoped for. Your correspondent contrives to make it appear that of the many teachers here, I am the one who seems disposed to do little to help my students, and yet I question if any other teacher here has been so generous in helping his pupils. Ten years ago, although I was then almost totally devoid of the necessary means, I spent a thousand pounds in providing them with the appliances necessary to help them in their studies. For several years I willingly sacrificed my private comforts in order to help them in the above manner. I believe the professor of chemistry and myself have invested more of our own means in teaching and research appliances than any other of our colleagues. Your correspondent's sneer about the "public" having a "right to ask why all this money spent on magnificent laboratories" strikes me as very strange when I think of my sacrifices in former years.

Your correspondent is gratified that the professor of pathology has "announced that his laboratory will be open to a limited number of graduates and senior students for the prosecution of research," but "he looks in vain for a similar announcement regarding the physiological department." It is true, that I have not announced any "advanced class" for laboratory work with a special fee attached, but your correspondent might have read in the calendar and on annual placards that my laboratory is always open for research. It has been in the past few years, and it will be for a good many years to come, difficult to get many workers, firstly, because of the Vivisection Act, certificates for experiments to be done in my laboratory having been twice refused by the Home Office. Consequently, most young men go to the Continent to do physiological research that implies experiments on animals. Secondly, physiology has not that direct bearing on practical medicine which pathology and therapeutics have. Consequently, it is difficult to get young men to work at physiological research, unless they are supported by fellowships and scholarships.

In my laboratory during the past session Dr. Yonnan, a Vans Dunlop scholar, did an excellent research on "The Structure of the Vitreous Humour," which was published in the last number of the *Journal of Anatomy and Physiology*. Dr. Noel Paton, who holds a research fellowship of the University, has been engaged in solving the difficult problem of "The Effect of Hepatic Stimulants on Excretion of Urea and Uric Acid." Dr. Hunter some months ago assisted me in investigating the effect of corrosive sublimate in preventing decomposition of the urine, the results of which will presently be published. Dr. Dyce Fraser continued his work on "The Cause of Scarlatina."

Dr. Gibson began a research on "Development of Blood Corpuscles," regarding which he published a paper in the *Lancet*, and of which more would have been heard but for the unfortunate refusal of a certificate by the Home Office. All the above subjects were suggested by me, and given to the researchers, who received from me all the help I could give, and who in no case paid anything save a small sum for necessary expenses. Dr. Alexander Bruce has also been conducting a research on the "Development and Pathology of the Human Brain," for a whole year, with apparatus belonging to the Physiological Department. During the past ten years I have personally done more research than any of my colleagues, and the amount could have been far greater than it has been but for the extraordinary labour thrown on me for a period of four years by the rapid growth of our medical schools.

When your correspondent says that "at the first meeting of my class at the new buildings, I went out of my way to describe in elaborate detail the appliances and purposes of upwards of a score of apartments for the prosecution of physiological teaching and research," he does, indeed, display a most acrimonious spirit. I was at infinite pains

and trouble to supply to the architect designs and measurements of every room and its contents down to the minutest detail in my department. My colleagues have all been equally painstaking in their efforts to make our new buildings supply the wants of a great medical school for centuries to come.

The remainder of the money needed to finish the teaching departments of the new buildings was rapidly coming in until eighteen months ago, when the Edinburgh newspapers suddenly became pervaded with violent attacks on the university and its professors, made by members of the Extra-mural School of Medicine, who had suddenly become seized with the delusion that university professors were attempting to stifle the Extra-mural School by means of the Medical Bill. Unlimited abuse about *text-books*, lectures, practical classes, examinations, &c., was levelled at our heads, and the immediate effect was an almost complete stoppage of the subscriptions to our new buildings. Members of the Extra-mural School have since then admitted that they had been under a misapprehension. The mischief they wrought, however, has not been undone. Comparatively little money has been obtained for the buildings since their attacks. Now, however, it appears from your correspondent's notes of to-day, that the idea he would like to insinuate is that the public hold their hand because a sufficient amount of work is not being done in our laboratories. This is, indeed, the addition of insult to injury.

What is required in all the Scottish Universities for the development of research is large sums of money to endow research scholarships, to pay for the materials and appliances required. In Edinburgh University, at all events, I think we require no more money to assist students, but much more to assist researchers, and it was to appeal for a Research Fund that "I went out of my way" to show that I had done all in my power in designing a laboratory in which a Research Fund could produce valuable results.

Regretting to have trespassed so much on your valuable space,

I am, Sir, yours, &c.,
University of Edinburgh, WM. RUTHERFORD.
8th November, 1884.

A HOME WITHIN A HOSPITAL.

[To the Editor of the Medical Times.]

SIR,—With the kind aid rendered by the Press, the Bolingbroke House Pay Hospital was established, and has been able to carry on its useful work for years, but so important a change has just been made in its administration that in the interest of the great lower middle class public I hope you will allow me to make it known. The funds for the establishment of Bolingbroke House were provided by those who wished to give to sick persons the advantages of hospital treatment and nursing, with home surroundings, upon paying such a reasonable fee as their means allowed, and so relieve the great free hospitals. Hitherto six gentlemen have acted as a medical staff and treated all cases, but as this was believed to limit the usefulness of the institution, they very considerately withdrew, to enable any qualified practitioner to send in a patient under his own special care and treatment. Trained nursing with proper sanitary surroundings and hospital treatment generally in the best air within the four mile radius are such obvious advantages to patient and doctor alike in serious illness, that now that Bolingbroke House is available to any qualified practitioner we may expect all its beds to be constantly occupied. It meets the special need of those who fall sick in lonely lodgings. It is a home within a hospital, and it gives a helping hand to those who in time of sickness are willing to help themselves. The Honorary Secretary, Mr. J. S. Wood, Woodville, Upper Tooting, S.W., will send a prospectus to anyone writing for it.

I am, Sir, yours &c.,
J. ERSKINE CLARKE,
Nov. 8, 1884. Trustee.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Thursday last, 13th instant. The resignations of Messrs. Forster, Savory, and Hulke, as Examiners on the Court of Examiners were accepted, to take effect from the completion of the Fellowship Examination, which will be held this month. Mr. Hulke will alone offer himself for re-election. It was agreed to proceed to the election of Examiners in Anatomy, in Physiology, and in Midwifery, under the new scheme of the two Colleges, at the next meeting of the Council; and it was referred to the Nomination Committee to advise and report upon candidates. It was further agreed that the candidature for examinership in Anatomy and Physiology should no longer be restricted to Fellows of the College, but should be open also to Members. It was agreed that the new Board should be employed to carry on the first professional examination of those even whose studies commenced prior to the date from which the new conjoint scheme takes effect. The examination for the Fellowship will as heretofore be conducted solely by those who have obtained that diploma. The present Court of Examiners, until otherwise ordered, are to be constituted Examiners of Surgery under the New Board. A communication from Mr. Pollock, to the effect that Mrs. Hawkins was about to present to the College a bust of her husband, Mr. Cæsar Hawkins, was received with much satisfaction. The matter arising out of Mr. Heath's motion as to the mode of election of the President was considered. The following resolutions:—(1) That the office of Vice-President be for the future held for one year only by the same person; (2) That the President be elected annually by the Council from among its Members, and that no President hold office for longer than five years, were referred to an Extra-ordinary Meeting of the Council to be held on Wednesday next, November 19th, at 4 p.m. A series of recommendations from the Association of Fellows was received, and ordered to be considered at this Extra-ordinary Meeting after the other business had been completed.

UNIVERSITY OF CAMBRIDGE.—At a congregation held November 5th, the undermentioned Degrees were conferred:—*Doctor of Medicine* — Herbert Tyrell Griffiths, Trinity. *Bachelor of Medicine*—Charles Arthur Morris, Caius.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — At a meeting of the Council, held yesterday (Thursday), Mr. Jonathan Hutchinson, Cavendish-square, Diploma of Member dated May 21st, 1880, student of the London Hospital, who passed his examination in November, 1883, was admitted a Fellow of the College.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 6th, 1884:—

William Peard Barrett, Bunwell House, Cheltenham; William Howard Bell, 27, Myddelton Square, E.C.; Trevor Augustus Dagg, St. Bartholomew's Hospital; Ernest Farr, Gloucester House, Barry Road, East Dulwich; Herbert Charles Walter Jones, St. Bartholomew's Hospital,

The following gentleman also on the same day passed the Primary Professional Examination.

Herbert Josiah Jones, The Middlesex Hospital.

THE INTERNATIONAL MEDICAL CONGRESS.—Mr. Henry Morris has received a communication from Mr. Audley Gosling, Her Majesty's Chargé d'Affaires at Copenhagen, to the following effect:—"I beg to inform you that the King was graciously pleased to receive me to-day in private audience for the purpose of delivering to his Majesty the address, signed by the English, Scottish, and Irish members of the International Medical Congress, recently assembled here, expressing their profound regret at the loss sustained by His Majesty and Denmark in the destruction of Christiansborg Palace on the 2nd ultimo. The King

seemed fully to appreciate the graceful tribute of sympathy, and commanded me to convey to its authors his 'heartfelt thanks.'"

THE EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—At a meeting of the Medico-Chirurgical Society, held on the 5th instant, the following gentlemen were elected office-bearers for the ensuing year:—President, Dr. Henry D. Littlejohn. Vice-presidents, Dr. David Wilson, Dr. J. Batty Tuke, and Dr. John Duncan. Councillors, Dr. George Hunter, Dr. James Jamieson, Dr. Graham Brown, Dr. J. M. Cotterill, Dr. Rattray, Dr. A. Moir, Mr. Johnston Symington, and Dr. Maebride. Treasurer, Mr. A. G. Miller, 11, Walker Street. Secretaries, Dr. MacGillivray and Dr. James. Editor of Transactions, Dr. William Craig.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following Fellows have been appointed Examiners for the Membership for the year 1885:—In *Principles of Medicine*, *Medical Anatomy*, and *Medical Chemistry*, Dr. J. M. Finny and Dr. Walter G. Smith. In *Practice of Medicine* and *Principles of Public Health*, Dr. C. J. Nixon and Dr. F. J. B. Quinlan. In *Clinical Medicine*, Dr. G. F. Duffey (Vice-President) and Dr. J. M. Purser.

ACADEMY OF MEDICINE IN IRELAND.—The following officers of the subsections of State Medicine and of Anatomy and Physiology, have been appointed. Subsection of State Medicine. Chairman—John William Moore, M.D., F.K.Q.C.P. Committee — Charles A. Cameron, Fellow and Vice-President, R.C.S.I.; E. MacDowel Cosgrave, M.D.; Thomas Wrigley Grimshaw, M.D., Registrar-General for Ireland: E. Dillon Mapother, M.D., F.R.C.S.I.; John Byrne Power, M.K.Q.C.P.; and H. J. Colpoys Tweedy, M.D. Honorary Secretary—H. J. C. Tweedy, M.D. Subsection of Anatomy and Physiology. Chairman—D. J. Cunningham, M.D. Committee—Phineas S. Abraham, F.R.C.S.I.; Francis T. Henston, M.D.; John Freeman Knott, F.R.C.S.I.; John Stephen McArdle, L.R.C.S.I.; John Mallet Purser, M.D.; and John Alfred Scott, L.K.Q.C.P. Honorary Secretary — (Not yet appointed).

LONDON HOSPITAL MEDICAL COLLEGE—CLINICAL SURGERY.—As Emeritus Professor of Clinical Surgery, Mr. Jonathan Hutchinson, F.R.S., will deliver a course of six lectures in the anatomical theatre on subjects of interest to house surgeons and dressers, at 3 p.m. each day, as follows:—Monday, November 24th, "On the art of note-taking, and other matters." Wednesday, November 26th, "On the surgery of the receiving room." Monday, December 1st, "On head injuries, hernia, and other matters." Wednesday, December 3rd, "On dislocations and fractures." Monday, December 8th, "On the treatment of wounds, &c." Wednesday, December 10th, "On retention cases, injuries to viscera, &c." Members of the profession will be admitted on presentation of their address cards.

CHARITABLE BEQUESTS.—Mr. Graham Moore Robertson has left 250*l.* each to St. Mary's Hospital, Paddington; the London Hospital, Whitechapel; and the Hospital for Sick Children, Great Ormond Street.

SIR ERASMUS WILSON.—Mr. Thomas Brock, A.R.A., has received a commission for a colossal bronze statue of the late Sir Erasmus Wilson, to be erected outside the Margate Infirmary, which owes so much to that physician. He will be represented clad in his robes of office as President of the Royal College of Surgeons.

PROSECUTION UNDER THE DENTISTS' ACT.—The British Dental Association recently instituted a prosecution in Edinburgh against William Robertson, for representing himself as registered to practise dentistry when he was not so registered. The defendant was fined 5*l.* with the alternative of seven days' imprisonment.

ANTHROPOLOGICAL INSTITUTE.—At a meeting held on Tuesday last, Professor Flower, F.R.S., President, in the chair, Mr. Francis Galton described the object, method, and appliances of the late Anthropometric Laboratory, at the International Health Exhibition, reserving the statistical results, which were not yet fully worked out, for another occasion. He established it to show with how little expense an elaborate course of measurements might be made, and how popular such a system of measurements would be The result was that 9,344 persons passed through the laboratory, each of them being measured in 17 distinct particulars for the sum of 3*d.* in a compartment only 6 feet wide and 36 feet long. The popularity of the laboratory was so great that its door was besieged by far more applicants than could be admitted, and many persons made repeated attempts and waited long for their turn, but at last gave it up as hopeless. So many applications have been made abroad and at home for duplicates of the instrumental outfit that it was advisable that any suggested improvements in them should be considered before they became established in use. The present paper was to invite discussion. An identical set of instruments to those used at the Exhibition have been set up by Mr. Gammage, optical instrument maker, at 172, Brompton Road, assisted by Mr. Williams, who between them conducted all the measurements at the Healtheries. They make a moderate charge for measuring, and keeping a register of the results. Mr. H. O. Forbes read a paper on the people of the Island of Burn.

THE PARIS NIGHT SERVICE.—Dr. Passant, in his report for the quarter ending Sept. 30 (*Gazette des Hôpitaux*, October 25), states that the number of calls amounted to 2,446 (as compared with 1,659 for the same quarter in 1883), or 28·58 per night. Of these visits 880 (32 per cent.) were paid to males, 1,256 (55 per cent.) to women, and 310 (13 per cent.) to children under three years old. The affections for which these visits were made, were as follows —(*a*) Anginas, croup pertussis, &c., 143. (*b*) Asthma and affections of the heart and lungs, 163. (*c*) Gastro-intestinal affections, strangulated hernia, retention of urine, &c., 928. (*d*) Metritis, uterine hæmorrhage and abortions, 157. (*e*) Labours, 209. (*f*) Affections of the brain and nervous system, and alcoholism, 371. (*g*) Rheumatism, fevers, and hæmorrhages, 213. (*h*) Wounds, contusions, fractures, dislocations, and burns, 164. (*i*) Poisonings, 30. (*k*) Suicides, 6. Sixty-five patients were dead on the arrival of the medical attendants.

VACANCIES.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—Resident House Physician. Salary, £65 per annum, with board, lodging and washing in the Hospital. Candidates must be duly registered. Applications with qualification and testimonials to be sent to the Secretary (from whom further particulars can be obtained), on or before Decr. 9th.

GATESHEAD DISPENSARY.—Resident House Surgeon. Salary, £210 per annum, with apartments (without attendance), coal, gas, &c. Candidates must possess the double qualification. Applications, and copies of testimonials, to be sent to Mr. Joseph Jordan, 2, Side, Newcastle-on-Tyne, not later than November 21st.

GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, N.—House Surgeon. (*For particulars see Advertisement.*)

HOLLINGBOURN UNION.—Medical Officer for the Fourth District, in succession to Dr. Edward J. Barry, resigned. Area, 16,199 acres. Population, 3,628. Salary, £60 per annum.

LIVERPOOL EYE AND EAR INFIRMARY.—House Surgeon. (*For particulars see Advertisement.*)

NORFOLK AND NORWICH HOSPITAL.—House Surgeon. (*For particulars see Advertisement.*)

ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—Senior Resident Medical Officer. (*For particulars see Advertisement.*)

THE BIRKENHEAD EYE AND EAR HOSPITAL AND DISPENSARY.—Honorary Surgeon. Applications, stating qualifications, &c., to be sent to the Honorary Secretary. on or before November 22nd.

WESTERN OPHTHALMIC HOSPITAL, 155, MARYLEBONE ROAD, W.—Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, and have attended Ophthalmic Practice for twelve months. Applications to be sent to the Secretary at the Hospital, on or before November 22nd.

DEATHS.

CHILCOT, JAMES, M.R.C.S., at Wardell, Richmond River, New South Wales, on September 11th, aged 37.

HUNTER, R. H., M.R.C.S., at Isleworth, on November 11th, aged 46.

KIDD, LEONARD, Deputy Surgeon-General, Army Medical Staff, at Hamilton, Bermuda, on October 31st, in his 55th year.

RANSOM, P. P., M.R.C.S., L.S.A., at North Elmham, Norfolk, on November 4th, aged 64.

RIDSDALE, G., M.D., at 26, Endsleigh-gardens, Gordon-square, N.W., on November 11th, aged 69.

SIMPSON. MAGNUS, M.B.C.M., at 15, Inverleith-row, Edinburgh, on November 11th, aged 32.
VEITCH, J. T., M.D., of Brahrang, Warrington-road, Ipswich, on November 10th, aged 67.

COMMUNICATIONS RECEIVED.

DR. CLIFFORD ALLBUTT, F.R.S., Leeds; Dr. GEORGE HARLEY, F.R.S., London; Dr. ISAMBARD OWEN, London; Prof. RUTHERFORD, Edinburgh; Miss YATES, London; THE SECRETARY OF THE MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH; THE SECRETARY OF THE PARKES MUSEUM OF HYGIENE, London; Mr. NOBLE SMITH, London; Dr. J. W. LANGMORE, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE HON. SECRETARY OF THE BOLINGBROKE PAY HOSPITAL, London; Mr. EDMUND OWEN, London; Dr. JAMES NIVEN, Manchester; Mr. T. P. TEALE, Leeds; THE REGISTRAR-GENERAL FOR ENGLAND, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE HON. SECRETARY OF THE MEDICAL SOCIETY, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Mr. EDWARD RAY, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Dr. EWART, London; OUR LIVERPOOL CORRESPONDENT; Dr. CHOLMELEY, London; Mr. CHATTO, London; Dr. CLIFFORD BEALE, London; Mr. SHIRLEY MURPHY, London; Mr. R. W. PARKER, London; Mr. STEVENS, London; THE DIRECTOR-GENERAL OF THE AMERICAN EXHIBITION, London; THE SECRETARY OF THE MEDICAL DEPARTMENT, LOCAL GOVERNMENT BOARD, London; THE WARDEN OF THE LONDON HOSPITAL MEDICAL COLLEGE; THE SECRETARY OF THE BALLOON SOCIETY OF GREAT BRITAIN, London; Mr. HENRY MORRIS, London; THE SECRETARY OF THE PATHOLOGICAL SOCIETY, London; THE EDITOR OF THE TEMPERANCE RECORD; THE SECRETARY OF THE SOCIETY OF ARTS, London; THE SECRETARY OF THE ANTHROPOLOGICAL INSTITUTE, London; Mr. LAWSON TAIT, Birmingham.

APPOINTMENTS FOR THE WEEK.

Friday, November 14 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY OF LONDON.—Dr. Stephen Mackenzie, on "Cases of Dysentery treated by Voluminous Injections of Nitrate of Silver;" Mr. Morrant Baker, on "Three Cases of Joint Disease in connection with Locomotor Ataxy;" Dr. H. B. Donkin, on "A Case of Muscular Atrophy and Joint Disease;" Dr. Hale White, on "A Case of Tumour of the Frontal Lobe with very few Symptoms." Living specimens—"A Case of Favus," by Mr. Malcolm Morris; "Cases of Joint Diseases," illustrating Mr. Baker's and Dr. Donkin's papers will be present, and perhaps others.

Saturday, November 15.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, November 17.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON, 8.30 p.m.—Dr. Carrick (postponed) on "The Manufacture and Uses of Koumiss in Russia;" Dr. Markham Skerritt (Clifton), on "the Conduction of Physical Signs in Diseases of the Lungs;" Mr. Noble Smith will show a Case—Cured Meningocele.

Tuesday, November 18.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

PATHOLOGICAL SOCIETY, 8.30 p.m.—Dr. Percy Kidd, on "Fatal Hæmoptysis from Bronchial Ulceration;" Dr. Carrington, on "Addison's Disease, with Cancer of the Liver and Supra Renal Capsules;" Dr. Norman Moore, on "New Growths in stomach of a Child;" Mr. Sutton, on "Uterine and Ovarian Disease in Animals and Birds;" Mr. Knowsley Thornton, on "Hydronephrosis caused by Papillary Growth and Calculus;" Mr. Hopkins, on "Bones from a case of Ataxia;" Mr. Treves, two specimens of Tumour of the Soft Palate; Mr. Lane, Fracture of first Rib (card).

Wednesday, November 19.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

SOCIETY OF ARTS.—Opening Address, by Sir Frederick Abel.

Thursday, November 20.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, November 21.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 1, ADAM STREET, ADELPHI, LONDON, 7.30 p.m.—Meeting. Mr. Alfred Spencer, on "Noxious Trades."

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SUMMARY OF CONTENTS, NOVEMBER 8.

MEDICAL TIMES

AND GAZETTE.

No. 1795. LONDON, SATURDAY, NOVEMBER 22, 1884.

Contents.

ON THE RELATION OF CERTAIN DISEASES OF THE EYE TO GOUT.

BEING

THE BOWMAN LECTURE,

DELIVERED BEFORE THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM,

Thursday, November 13, 1884,

By JONATHAN HUTCHINSON, F.R.S.

GENTLEMEN,—At the request of your Council I have the honour this evening to deliver the first Bowman Lecture. This lecture has been instituted with the design of gratefully commemorating the services of Sir William Bowman to science, and more particularly those which he has rendered to this Society in his capacity as its first president.

It is intended that the lecturer shall on each occasion undertake the investigation of some special subject in connection with ophthalmology.

I do not think that any more appropriate method could have been devised by which to pay respect to one of our very foremost workers. For myself, I can only say that I feel deeply the responsibility of the yet very agreeable duty which has devolved upon me, and could heartily wish that your Council had selected some one more capable of doing it justice. Having made this personal apology, I feel, however, that I shall best honour the name of Bowman by trying to imitate the example of his life, and proceeding at once, to the best of my ability, to deal with the subject in hand.

I take for the subject of my lecture the relations which exist between certain Diseases of the Eye and Gout. We shall have to classify several different forms of disease—for the most part, but not exclusively, inflammations of the iris—to describe their peculiarities and to examine the evidence which is forthcoming as to their real connection with gout. The enquiry is an important one, for a gout taint is of extremely common occurrence in a large proportion of the British population. The investigation is also in many of its ramifications one of great intricacy and difficulty. Certain facts we shall, I trust, be able to establish with clearness, but respecting many others we shall not be able to get further than the stage of more or less confident inference. I had at one time intended to bring before you a good deal in the form of attempted proof — that is, of statistical or tabular statements of fact. I have found, however, in the preparation of the lecture that the time at my disposal will not permit of more than a brief sketch of the whole subject, and I shall therefore, on compulsion, spare you much of the detail. It is, however, only just, both to you and to myself, to state that my arguments and assertions this evening will be based upon the careful examination of a lengthy series

of recorded cases. A large part of these will be found given at length in Volumes VII. and VIII. of the Ophthalmic Hospital Reports, and the remainder I have in type before me, although not yet published.

Definitions of Gout and Rheumatism.

Before we proceed to enquire whether gout may be deemed to be the cause in some instances of such diseases as hæmorrhagic retinitis, recurring iritis, glaucoma, and others, it may be well to state that I wish to keep a clear distinction between gout and rheumatism. This distinction is in practice often very difficult and sometimes quite impossible to draw, but for all purposes of accurate clinical pathology we must insist upon its existence. By gout I shall mean all states of health which are, whether directly or remotely, connected with the accumulation of lithate of soda in the blood, as the result of overfeeding or defective assimilation.

Under the laws of inheritance of morbid tendency it may easily be the fact that a person may feel the effects of this condition in his parents, who may yet himself never exhibit it. We may have a form of inherited gout which is not associated in the patient with either lithiasis or lithæmia. Hence, as I shall have to show presently, some very peculiar forms of morbid action.

Thus it may perhaps be conveniently laid down that there are two fundamental conceptions of what gout is. They are not antagonistic, but rather in mutual co-existence. In practice the two methods of influence constantly modify each other.

What I may call the primitive conception of gout regards it as due to a state of the blood induced in part by errors in feeding, and in part by defects in assimilation and depuration. It has regard to the food, the digestive power, the habits as regards exercise, and the integrity of the kidneys. In this form of dietetic or humoral gout the stage of lithæmia is essential, and the final product of deposit of urates in the tissues almost equally so. We must, however, seek a wider vision than this. As an introductory stage let us imagine the condition of a man who many years ago was subjected for a long period to the ordinary causes of primitive or humoral gout, but who for a considerable series of years has carefully avoided them. In such a person it is easy to see that although his blood may have been long kept free from excess of urates, yet, as the consequence of conditions of long duration in the past, his tissues may have received modification, and may be prone still to suffer in a peculiar manner when exposed to the ordinary exciting causes of disease. In particular they may be liable to grow old on a peculiar type. Not only are his tissues in general modified, but those of his nervous and vascular system have probably been especially influenced. Hence the power of control over any process of inflammation, by whatever cause it may have been initiated, is peculiar and defective. If such a man sprains a joint it will not recover in the way it would have done had he never had gout, yet the joint may nevertheless be very far from assuming a typical gouty state. There may be no tendency whatever to the deposit of urates. Now let us take another step in the attempt to give reality to our conceptions of the hidden influences under which the every-day phenomena about us are produced. Let us imagine that such a person as we have supposed, one who has suffered severely and through many years from humoral gout, becomes a parent. His offspring will inherit his tissues, his tendencies as regards digestion, kidney excretion, skin elimination, and all the rest. These will, no doubt, give a greatly increased proclivity to common typical gout should the causes of it come into play. They may, however, do much more than this. They may render their subject liable, quite independently of exciting causes, or with but little help from them, to forms of inflammation or of degraded nutrition, which are not unequivocal gout, but which are yet the direct consequence of it in predecessors. The modification which is here inherited is, I repeat, of the tissues and not of the blood, though it is obviously very easy that the two may complicate each other. The subject of tissue modification from inherited gout may easily become the victim of humoral gout as well.

Inherited Gout.

It is clear from this argument that we must be prepared to see inherited gout assume very different forms from those in which we are so well accustomed to recognise the primitive type. Permit me now to suggest that it is the clinical, or rather the social, fact that a not inconsiderable proportion of the well-to-do classes of the British population are born under the conditions which I have been supposing. The number of those who are the descendants of parents who have suffered from humoral gout is very large indeed, and, especially in our large towns, it is by no means restricted to the educated classes. We must be prepared, then, to encounter, not unfrequently, peculiar types of morbid action which derive their peculiarities from this association. It is the duty of the clinical investigator to carefully examine the evidence which is forthcoming as regards each before he admits its claim. Certain diseases of the eye for which this claim is with more or less confidence put forward will form part of our topics for discussion this evening. It may, perhaps, facilitate matters if I express at this stage the belief that most of the varieties of what is called rheumatic gout stand in this relation to true gout. The list would include lumbago, sciatica, neuralgia, crippling rheumatism, arthritis deformans, osteo-arthritis, many forms of iritis, and many cases of glaucoma. I by no means wish to suggest my belief that any one of these is in all cases in some degree dependent upon the inheritance of gout. Some of them are doubtless in not a few instances purely rheumatic, and this admission renders it desirable that I should say two or three words as to what our conception of rheumatism ought for the most part to be. Let me hint that from our primitive idea of rheumatism I should like to exclude all causes having reference to food or assimilation, and to count only those which regard climate and weather, and especially exposure to cold and damp. The rheumatic diathesis, like that of gout, may become ingrained, and at the same time modified by hereditary transmission, and in this connection it is easy to overlook its original causes and even to believe that it may begin spontaneously, or in consequence of other influences than the true ones. The hereditary diathesis of rheumatism (arthritic susceptibility to weather) may easily co-exist with that of gout (arthritic susceptibility to diet), and each of them or both together may combine in endless variety with other forms of morbid tendency. It follows that we have to study many hybrid or mongrel types of disease in more or less close connection with them.

"Hot Eye," Irritable Eyes, Quiet Gout, &c.

There is a condition to which, for want of a better name, I have for long been in the habit of recognising as Hot Eye. It is one of the many curious phenomena which attend quiet gout. I use the term quiet gout as distinct from acutely paroxysmal gout. In families liable to gout, for one person who becomes the subject of acute attacks of podagra, what is known as unequivocal gout, there are often half-a-dozen who are the subjects of minor symptoms which denote a similar tendency. In them the tendency never rises to sufficient height to induce a severe and characteristic paroxysm. They are nevertheless liable, after taking beer or wine injudiciously as to quantity or quality, to experience slight pricking pains in joints, attended by lithic acid

in the urine and other unmistakable signs of the diathesis. In many, these symptoms occur in such invariable association with the causes suggested, that it is not possible to doubt as to their nature. The liability varies with the weather and time of year, and it often ends, unless precautions are taken, in a sharp attack in the great toe. The terms suppressed gout, or better, undeclared gout, are often used in reference to it, but since it is simply a minor form of the disease not in any way suppressed, and certainly not to trained observers undeclared, I prefer the term quiet. Amongst the frequent occurrences which denote its presence are repeated short attacks of congestion of the eye. Usually one only is affected, but sometimes both. The conjuctiva becomes red, and the eyeball feels hot, and pricks, as if sand were in it. The attack may come on within half-an-hour of the meal which has disagreed, and it may last a few hours, or a day or two. Sometimes, owing to interference with the ciliary muscle, vision is slightly dim, and all attempts at accommodation are usually painful. Those who are liable to hot eye, not unfrequently in the end suffer from iritis; indeed it is not unfrequently an introductory stage to that disease. On the other hand, many are liable for years to very frequent attacks of it without apparently any risk of its assuming more serious proportions. In the intervals of the attacks, the eye is usually quite well, and it is indeed its definitely paroxysmal character, its sudden development, and very complete and rapid disappearance, which especially mark its arthritic relationship.

In connection with this subject it may be noted, that not unfrequently those who suffer from unequivocal gout, experience shoots of sharp pain in the eye-balls, the nature of which they well understand. A man, William B., aged 51, who had suffered much from gout, and whose father and four of his father's brothers had all had it, complained much of this kind of pain, yet he had never had iritis. When he was gouty, he said he frequently had "darts of pain through the middle of each eyeball," and occasionally across the bridge of the nose.

A further practical note I must ask leave to make. It is to the effect that many cases of irritable hyperæsthetic and easily tired eyes in young persons are in association with inherited gout. I feel sure that in some of these cases we are in the present day in danger of pushing the recommendation of spectacles to an excess. Some slight degree of hypermetropia may be detected, and it is assumed to explain the irritability of the eye. Yet glasses do no good, and in fact only increase the irritation. In such cases, very often, the real malady is inherited gout.

Transverse Calcareous Bands of the Cornea.

I must admit, in the commencement of our investigation, that little or no evidence exists as to the deposit of urate of soda in any of the structures of the eye. I doubt whether it has ever been proved in any single case, although several observers have suggested its presence. I trust, however, that we are long past the stage of belief which regards such deposit as essential to a gouty inflammation. The nearest approach to proof of gout deposit has been made probably in the case of what are known as the transverse calcareous bands in the cornea. Sir William Bowman, in the year 1848, was, I believe, the first to publish cases of this kind, but the earliest case had been observed by Mr. Dixon. Valuable information respecting the disease has recently been collected and studied by Mr. Nettleship. I believe I may fairly sum up the present state of our knowledge by saying that no one has yet proved that the salt deposited is that of gout. It is usually calcareous. The disease occurs in persons very likely to suffer from gout, and sometimes with a gouty history, but we are not as yet justified in holding that this earthy deposit is in direct connection with that diathesis.

Arthritic Iritis.

It will be admitted without dispute from anyone that there are several forms of *Iritis* which are arthritic in their origin. In other words, they occur to those who are liable to attacks of inflammation of joints, and the inflammations of the eye occur under conditions similar to those which excite the inflammations of the joint. Both are in some cases prone to occur in an acute but transitory attack. Both are very apt to recur after periods of complete immunity, whilst in other cases both may assume a chronic, persisting and destructive form. With such features of similarity we are justified in assuming, as indeed is done by all authors, that they are due to the same causes. The problem which I have to consider to-night is whether these causes belong to gout or to the rheumatic class; whether they are sometimes the one and sometimes the other; and lastly, whether they are not in some cases of a hybrid or mixed nature. Permit me briefly to state some of the peculiarities which are to be observed in different types of arthritic iritis; and to ask respecting each what evidence we possess which would connect them with the tendency to gout. Let us take first the common form in which the iritis occurs in acute transitory paroxysms. Of this, good typical examples will be in the memory of us all. Its subjects are usually men, and often of vigorous health, and past middle life. The iritis scarcely ever affects both eyes at the same time, but occurs first to one and then to the other, sometimes keeping to the same eye during several successive attacks and then leaving it to assail its fellow. The attacks are often acute, beginning very suddenly, and attended with great pain. When they subside they subside completely, and leave the eye without the slightest degree of irritability. The duration of the severity of an attack may vary greatly at different times in the same patient. The tendency to form adhesions is extremely great. It is very remarkable how in most cases of this class the disease restricts itself to the iris and shows no tendency to disorganise the globe. Thus a patient in whom, in consequence of repeated attacks, the pupils may be occluded, with the exception of mere pin-hole apertures, may yet continue to enjoy very fair sight. I by no means wish to imply that this is usually the case. The case of Dr. Curry, as recorded by himself in the Medico Chirurgical Transactions, is a good type form of this disease. Dr. Curry had suffered much from true gout. I may cite, however, as another good type illustration of this class, that of a gentleman whose friendship I had the privilege to enjoy during a long period of my early life. He was a florid, fair complexioned man, of vigorous habits, a large eater, and through life accustomed to drink beer. He inherited rheumatism but there was no known history of gout. He had suffered in boyhood in consequence, as he believed, of too free bathing when hot, from rheumatic fever. When I knew him first he was about five and forty, and from that time onwards to his death, at the age of sixty, he had a variety of arthritic complaints—lumbago, sciatica, chronic arthritis of the knees and other joints, and recurrent iritis. Both his pupils were closed with the exception of very small apertures, through which, however, he still continued to see enough to follow an occupation in which everything depended on good sight. I attended this gentleman year after year, usually in the early part of February, for most severe attacks of iritis, never affecting both eyes at once. He was benefited by large doses of iodide of potassium, and the free use of blisters. At length his attacks ceased to occur and during the ten years preceding his death I believe

he had not had any. I made a *post-mortem* examination of his body, and found no proof of gout. His knees contained loose cartilages, and there were patches where the articular cartilage was wearing away, but there was no urate of soda.

I have the record of a considerable number of cases in which the liability to these recurrent forms of iritis occurred in those who were the subjects of unequivocal gout. But there were a far larger number in which the concomitant symptoms were of rheumatic arthritis and not of true gout. The question remains, however, whether this form of rheumatic gout, although unattended by lithate of soda deposit, be not in reality a hybrid disease possessing, in addition to an unquestionable share of rheumatism, an admixture also of gout tendency. The infrequency of the disease in women, the age, the habit of body and the mode of life of those who are usually its subjects seems to me to strongly support this view. So does also the extreme severity of the attacks, and their rapid and complete subsidence when once the point is turned. When this form of iritis does occur to women it is never, I think, so acute or so paroxysmal as in men; and it almost always happens to those whose relatives have suffered from gout.

Various Forms of Arthritic Iritis.

Next to this form of recurrent iritis, and including perhaps some of its examples, I have to mention the iritis which occurs in connection with gonorrhœal rheumatism. All observers will admit, I think, that iritis associated with ordinary rheumatic fever is infinitely rare. So also is it in connection with that type of arthritis to which the name of crippling rheumatism may be given. In other words, iritis in association with either acute or chronic rheumatism is a thing that we scarcely ever observe. In men, however, the rheumatic affections, whether acute or chronic, which are induced by gonorrhœa are not unfrequently accompanied by iritis. This iritis is less distinctly paroxysmal and much more liable to persist and be destructive than is the case in the form which I have just described.

My explanation of this is easy. The reason why gonorrhœal rheumatism so often causes iritis is because it occurs usually to the subjects of inherited gout.

A third form of arthritic iritis is one which affects women more frequently than men, which not unfrequently attacks both eyes at once, which is apt to spread to the ciliary region and choroid; to persist and to prove destructive. In a very considerable proportion of the women who suffer from this form there is a history of gout in former generations.

Another group of arthritic iritis might be constituted of cases in which the malady happens to young patients, and proves but slightly, if at all, liable to recur. These single attacks of iritis without history of gonorrhœa or syphilis, and occurring in young persons, usually, I think, affect the male sex and almost always there is the history of gout in relatives.

I must just mention, in order to complete my classification, although it is but of little clinical importance, the group of cases in which iritis occurs in association with glycosuria. In these, according to my experience, the patient is almost always the subject of gout also.

To sum up then, I would say, that although in many individual cases of arthritic iritis there may be no proof of liability to gout in either the patient or his relatives, yet the tenor of the evidence in general is in favour of the conclusion that when iritis occurs there is in reality some gout complication. The more purely and definitely is the case one of rheumatism, the less the probability that iritis will happen. When iritis occurs the complications are almost invariably those which suggest what we call rheumatic gout, rather than rheumatism pure and simple; that the smaller joints are often affected and nodi digitorum present, whilst sciatica, lumbago, and neuralgia are frequent complications. I have elsewhere tried to prove that gonorrhœal rheumatism occurs in nine cases out of ten to those who inherit a gouty constitution and that it is chiefly this inheritance that gives the proclivity to it. I cannot stop now to recapitulate the evidence on which this belief rests, but if it be trustworthy it offers an explanation of the fact that iritis is so frequently met with in association with this type of rheumatism.

In certain cases of iritis with arthritic associations a very peculiar condition is observed. I allude to the filling of the anterior chamber with a soft gelatinous jelly-like mass. This material, which produces an appearance most alarming to the uninitiated, concealing the pupil and suggesting entire destruction of the cornea, is susceptible of very rapid absorption, and may, in the course of a very few hours, clear right away. I believe that in some cases of syphilitic iritis this peculiar form of appearance has been noticed, but if I were to speak from my own experience I should cite it as a symptom very strongly indicative of gout. I would make the same remark, though with less confidence, respecting the rare cases of iritis complicated with hæmorrhage.

Statistics as regards Arthritic Iritis.

My report on arthritic iritis, published in the *Ophthalmic Journal* of 1872–74, contains the narrative of 104 cases which are suitable for our present purpose; for various reasons I omit a few on account of doubts as to their nature or imperfections as to the details. The report comprises cases of all varieties in which either rheumatism or gout, or the two together, were supposed to have been the causes of inflammation of the eye. They were collected from my note-books, both from hospital and private practice, up to the date mentioned. It is right to state that at that time, my opinions as to the influence of true gout were less advanced than they are at present, and that my knowledge as to the means of recognising it was also less. The notes of many of the cases had been taken some years before they were published, and thus certain enquiries which I should now carefully make were unfortunately omitted. On this account I have no doubt that we must consider that the report does not show the influence of gout so strongly as it would have done had the cases been taken with better knowledge. Out of the 104 cases, I find a positive history of gout having occurred in the patient in only 18 cases, and only in 29 was there the history of positive gout in near relatives. It is to be observed, however, that these numbers take cognizance only of what has been termed "unequivocal gout," namely, of those in which an unmistakable attack of inflammation in the great toe or other single joint had unquestionably occurred. It omits altogether the much larger number in which the gouty tendency had remained undeclared or had been manifested only in what we may term its quiet form. Any one who will examine for himself the narratives to which I refer, will, I feel sure, agree with me in this opinion. In a very large proportion there was, I think, good reason for believing that a taint of gout existed where the narrative mentions rheumatism only; the arthritis had constantly been of the chronic type, and had very frequently presented exceptional conditions. If we may count such maladies as sciatica, lumbago, neuralgia, nodi digitorum, gonorrhœal rheumatism, rheumatic gout when affecting the smaller joints, as being for the most part indications of gout rather than of pure rheumatism, we shall then find that facts at any rate suspicious of gout are present in nearly all the cases. It is, I think, decidedly exceptional for rheumatism pure and uncomplicated to show

any tendency to attack the tissues of the eye. Iritis in conjunction with rheumatic fever of the ordinary form is almost unknown, and even in cases in which patients suffer from repeated attacks, as is sometimes seen, the eyes usually remain free. So soon, however, as changes of type occur, the disease showing a tendency to attack the smaller joints, or to affect only single joints, or to pass into the chronic form; then we get the liability on the part of the eye to suffer. On this point my own experience is quite in accordance with that previously expressed by an acute and zealous clinical observer, the late Dr. Fuller. Dr. Fuller in his first edition, speaking of rheumatic gout, stated that in 11 out of 101 cases which he had tabulated when Medical Registrar to St. George's Hospital, the eye had suffered more or less severely, and in 14 out of 193 cases which had subsequently been under his own care in the hospital. In a second edition, he stated that he had so far modified or developed that opinion, that he had come to believe that many, if not all, of the cases in which this complication occurs, were examples of obscure gout or else of gonorrhœal rheumatism, adding "this at least is certain, that since my attention has been specially directed to this question, I have been enabled to find a gouty or venereal (meaning, I think, gonorrhœal) taint in every case in which the eye has been inflamed in connection with presumed rheumatic gout." This is strong testimony, stronger certainly than I am prepared to give, but I doubt whether it much exceeds the truth. Among other authors who have distinctly recognised gout as a cause of diseases of the eye, and appear to have referred a considerable proportion of those diseases, when arthritic, to gout rather than to rheumatism, I may mention Dr. Jacob, Mr. Weller, Mr. Middlemore, Dr. Copland and perhaps Mr. Wardrop. Mr. Middlemore goes so far as to think that he has seen in one or two cases, the pupil occupied by calcareous concretion of a gouty nature. None of these observers have, I think, recognised any other special disease as connected with gout than recurrent iritis. Almost invariably I find sclerotitis put down as rheumatic.

Insidious and Destructive Iritis from Inherited Gout.

I must now enter upon one of the most important topics of my lecture. It is the attempt to prove that there is a very peculiar form of destructive iritis, occurring for the most part in young persons, which stands in all cases in direct relation with the inheritance of a gouty constitution. It does not occur to those who themselves suffer from attacks of gout but to their descendants.

It was in 1863 that I first saw, at Moorfields, a girl named Mabey. She was then about 18, tall, well-formed and florid. She was too florid, and the circumscribed areas of colour in her cheeks varied in tint from bright red to slightly livid, according to the coldness of the day. She was the subject at the same time of a most peculiar form of arthritis of the last joints of all her fingers, and of double iritis. Her right eye was lost and painful and I accordingly excised it. Her left was saved only by repeated iridectomies and finally by extraction of the lens. After the last operation she continued for five years to enjoy good sight and was free from relapses. Her fingers also got well. At the age of 26 she became the subject of phthisis and died, I believe, at about 30. I showed this patient at the Hunterian Society, and drew attention to the unusual features of her disease. Some one present, looking at her hands, remarked, "Surely this is gout." I took the hint, enquired into her family history and found that in all probability it was gout. Her father had suffered repeatedly from that malady in an unequivocal form, and he had tophi in his ears. I show you drawings of the state of the girl's fingers. In order to ascertain whether there were urate deposits in connection with the swellings, I cut into one of the largest and obtained only a soft jelly-like substance. When after some years the swelling subsided, the terminal joints were all left disorganised and the last phalanges were more or less displaced. There appeared reason to believe that a feeble state of the circulation combined in this case with the gout inheritance.

I have repeatedly mentioned Mabey's case in public and with it others which came under my notice subsequently and I must content myself on the present occasion with a short summary of the facts. In 1872 I gave a lecture at Moorfields on this disease and was able to cite four well marked examples of it. In 1880 I gave, at the London Hospital, a second lecture, in which I adduced seven additional cases, making eleven in all. Of these eleven patients four were females and seven males, but it happened that the most typical and severe forms of disease occurred in females, a fact which my subsequent experience has fully confirmed. In all cases both eyes ultimately suffered, but only in one were both affected simultaneously. In three instances last-joint arthritis, that is to say destructive inflammation of the last joints of the digits, occurred. In all the cases vitreous opacities as well as iritic adhesions were developed. In most of the cases the eye which was last attacked suffered most, and a decided tendency was shown for the disease to come to an end as the patient advanced in life. In several cases the eye was saved by repeated iridectomies, and in one or two change of climate seemed to be very beneficial.

In all the cases but one the family history of gout was clear and strong, and in the exception the patient was the son of a brewer's man, and his father had died early, so that it was very possible that his proclivities had not declared themselves. In several of the cases the patient had been reduced almost to blindness. In three one eye had been excised and in one both were quite lost. In all excepting two the disease had begun between puberty and the age of twenty-five, and it would appear to be the fact that the earlier it begins the more severe it is. Such then was the state of my facts in 1882 when I put my last lecture into print. I think you will allow that I was justified in avowing a strong belief that inherited gout was the real cause of this peculiar form of iritis.

That I may add a little more colour to my picture I will ask your permission to state briefly the facts of three cases which have come under my notice since the date referred to. They are all cases of great interest and two of them illustrate a fact which I had previously only once or twice noticed, namely, that there is a tendency to the formation of cataract.

The last case which I have seen is that of a Miss D., aged 30, the daughter of a surgeon in the country. She was brought to me with the left eye quite destroyed and the right nearly so. In the left an opaque lens had undergone spontaneous absorption and the iris was everywhere adherent to the opaque capsule. In the other the lens was half opaque and the iris extensively adherent. I was told that I had myself seen this patient ten years before and had then recognised only commencing cataract in both. The patient's father, an intelligent medical man, was astonished when I told him that there had been extensive iritis, and assured me that his daughter had never had any attacks of inflammation. The patient herself said that she had never noticed more than that the eyes had sometimes been red and hot and would prick a little. We have here then a good instance of the very insidious course of the disease. In the left eye there was no perception of light, and very probably the vitreous was affected. I found on enquiry that in Miss D's family there had been

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much gout. She herself appeared to be in good health.

Mrs. O. is a young married lady who has borne three children and during lactation in each instance suffered from a chronic form of almost painless iritis. Both pupils are almost excluded. Her father has suffered gout, and several other near relatives. She is of feeble circulation and liable to chilblains.

I have kept one of my best cases to the last. Miss L., aged 22, is the youngest of a family of eight, and was born after the death of a father who had suffered much from "chalk gout." Her eldest brother has had both gout and rheumatism, and there is rheumatism also on her mother's side. Miss L. began to suffer in her eyes at the age of 12, and at first it was simply redness and irritability with "black specks," "balls," and mist. At the age of 14 she had a severe attack in both and was several months under Mr. L.'s care almost blind. From this she recovered, but at 18 a surgeon in Liverpool performed an iridectomy on the left on account of exclusion of the pupil. A little later Mr. C. did an iridectomy in the right. Neither of these operations resulted in any improvement of sight. In 1880 a surgeon in Leeds removed a soft cataract. The eye was lost and Mr. C. excised it a few months later. Miss L's. present condition is that with the one remaining eye she can just puzzle out $\frac{20}{200}$.

Could I possibly produce before you a more marked example of an insidious destructive disease, progressing in spite of the most highly skilled assistance to its melancholy end? Yet it is only a fair example of about half those included in my series.

Relapsing Cyclitis.

There is a peculiar form of chronic inflammation of certain parts of the eyeball which clinical observers have recognised under the name of *Relapsing Cyclitis.* It is a cyclo-kerato-iritis involving the ciliary region of the sclerotic, the adjacent part of the cornea, and the iris. Sometimes one of these structures suffers more than another but usually all are involved. It seldom damages the pupil itself much, seldom invades the centre of the cornea, or only very late in the disease, and it does not show much tendency to involve the choroid or vitreous. It usually begins in one eye and only affects the other after a long interval, and to the last one usually suffers more severely than the other. It may begin in early life but often does not do so till middle periods. When once it has begun it never wholly leaves its victim but continues either to persist with slow chronicity or recurs over and over again after intervals of health. It causes scars in the ciliary part of the cornea, thinning and discolouration of the ciliary region of the sclerotic, and ends either by inducing staphyloma or by making the whole cornea dull. It may occasionally become needful to excise the eyeball on account of the persisting irritability combined with great impairment. It affects, I think, women more frequently than men. It is a very peculiar type of disease, and it would not be difficult to place side by side a group of examples of it all exactly alike. I know of no treatment short of a complete change of climate which does much to benefit it. In this respect it is much like the form of iritis which I have been striving to prove to be a direct result of inherited gout. Yet I am by no means in a position to produce before you respecting relapsing cyclitis such evidence in reference to its gout origin as that which we have been discussing. I dare not indeed do more than suggest that it is very probable that in some cases the constitutional cause of this destructive and persisting disease may be gout. I have found a gout history in some of my cases but in others it has been absent. The last case which I have seen has been the one in which this suspicion was the strongest.

Miss D. is the daughter of a medical friend. She is now 40 and she has suffered all her life from her eyes. She was treated when two years old by Mr. McMurdo for what was then called strumous ophthalmia, which proved very intractable. Since then she has had numberless relapses, and in both eyes the cornea at its edges has become extensively opaque. Her left eye is the worst, and has recently been so troublesome that I was inclined to recommend its excision. It is by no means a blind eye but the cornea is so hazy that it is of little use. Now say that we have here a case in which strumous ophthalmia has persisted through life, let us ask what is the constitutional peculiarity which has conduced to this exceptional result. The lady has been well cared for all her life, she shows no other signs of struma nor are such present in any of her relatives. Her father is a robust man. Mark that both eyes have suffered and that in both it is the peripheral parts of the cornea which have been chiefly involved. Now this lady's maternal grandfather and two of her maternal uncles suffered severely from gout, her mother had an attack in her great toe, and even she herself has on one occasion had an attack of it. This strong gout history is certainly by far the most definite fact which I can obtain as explaining the peculiarities of her eye disease.

Can Gout cause Neuritis?

Although from time to time strong suspicions have been expressed as to the occurrence of gouty affections of the nervous system, I believe the question has seldom been definitely put, "does gout cause neuritis?" We know that gout can cause the tissues of a joint to inflame, and that œdematous effusion with cell proliferation, in fact the ordinary phenomena of inflammation, are its results. I shall be much disappointed also if it is not regarded as proved that it can cause the tissue of the iris to inflame in a precisely similar manner and with like results. Can it attack any of the structures of which the nervous system is composed? Can it cause inflammation of ganglia, of nerve trunks or of their investments, or may it indeed attack the central organs? Without venturing to suggest that any of these occurrences are common, it is yet difficult to deny a possibility or even probability in exceptional cases. We can understand the influences that are likely to localise gout; its exciting causes may come into play far less frequently in reference to the nervous system than to the joints; or even to such an apparently exposed part of the organism as the eye. Still, if we admit that in the gouty condition inflammations may attack the cellular tissue in any part of the body, it is difficult to suppose that the cell elements which enter into the formation of nerve trunks, for instance, will always escape. I am glad to note in the progress of neuropathology of the last few years that there seems an increasing tendency to recognise the possibility that not a few nervous affections may be due not to central disease, but to primary inflammation of the connecting trunks or of the peripheral organs. We know for certain that chronic neuritis, probably beginning peripherally, is a part of leprosy. It is highly probable that it is often a part of syphilis and quite possible that it occurs also in locomotor ataxy. How else explain many of the transitory forms of ptosis, etc., etc., which occur in the two latter diseases?

Gouty Neuritis of the Optic Nerve.

The question which I now wish to put definitely is: Are there any cases of inflammation of the optic nerve, or of any of the motor nerve trunks of the eyeballs. the direct cause of which is the existence of a gouty

constitution? The decision is of importance not only in reference to diseases of the eye, but because it would throw much light on certain other obscure affections met with in this disease. Is sciatica really a neuritis of the sciatic trunk or its sheath? Are any of the forms of gouty neuralgia really produced by gouty neuritis? If the optic nerve can inflame from gout why not the pneumogastric, or the phrenic? I am sorry to say that I have exceedingly little evidence to bring forward in answer to these important questions. I will mention briefly one or two facts which are suggestive, and which I hope will prove sufficiently so to induce a more careful investigation of the subject. In two or three cases I have attended young ladies, of families in which gout had been prevalent, who suffered from attacks of ptosis, with the other group of symptoms referable to paralysis of the third nerve, for which I could find no other more plausible explanation than that they were caused by gouty neuritis. In one of these the attacks were transitory and recurrent, several having occurred within a period of a few years. I must not venture to trouble you with details of these cases, but feel myself obliged to speak rather more at length concerning one in which the optic nerve itself was inflamed, there being, I think, fair reason to suspect that the cause was inherited gout. A young lady, of 16, was brought to me from Ipswich, on account of blindness of one eye in July, 1879. She had no other symptoms whatever, was florid and appeared to be in good health. The ophthalmoscope showed nothing but what was quite normal, and had it not been that her pupil dilated more widely when the other was covered, I might have suspected that she was feigning. A week later the changes were conspicuous, the disc being much swollen and its margin concealed. Under treatment by mercury combined with quinine, in the course of a few weeks the attack had passed away, but the disc was left pale. Four years later I saw this patient again with similar symptoms in the other eye, and I was now told that she had several times suffered from transitory attacks which always occurred during spring. Her health remained perfect. There was a strong history of gout in the family, both her parents having suffered repeatedly. It seems to me not at all improbable that these recurrent attacks of transitory neuritis were really of a gouty type. In saying this, I have regard to the entire absence of the more ordinary causes and concomitants of optic neuritis, to the recurrent nature of the affection, its want of symmetry, and the exceptionally strong family history, both parents and many other near relatives having suffered. I cannot call to mind any other case of recurring optic neuritis, with gout history, which I could at all fairly place side by side with this one. I have, however, several times seen optic neuritis occur in women who were of gouty family without any of its ordinary accompaniments and clear away entirely under treatment. In none of the cases of which I am thinking did any recurrence take place, and in most of them both eyes were simultaneously attacked.

Other forms of Gouty Neuritis.

Before quite taking leave of this important question as to the possible occurrence of gouty neuritis, I must trouble you with yet one other case. A lady, of 56, came under my observation in whom for several weeks the left facial nerve had been quite paralysed. I observed at once that she had had two large iridectomies done downwards and outwards, and on enquiry found that she was nearly blind. It was twenty-three years since she had first noticed cobwebs before her sight, and fifteen since she had last been able to read. The iridectomies had been done six years, with what object I do not know, for although she said that she had once had rheumatic inflammation of her eyes, there did not appear to be any adhesions. In each eye the lens was partially opaque, and in each there were extensive choroido-retinal changes with pigment deposits and waxy atrophy of the discs (a peculiar form of retinitis pigmentosa). Mrs. H., told me that she had a sister who also had "amaurosis." I persuaded her to bring her sister, and may now state the family history which belongs to them both. One of their brothers suffers not unfrequently from attacks of unequivocal gout, and a sister is crippled by rheumatism, but their parents died aged, and are not known to have suffered. The elder of the sisters, aged 69, has herself had gout, and describes her great toes graphically as having been swollen and red like tomatoes. This sister after her first confinement, aged 27, had an attack in her eyes which lasted several years attended by great pain and intolerance of light. Her recovery from it was very gradual, but finally it was almost perfect, and I could now find no material changes. For several years she has been very deaf and she has suffered severely from neuralgia and chronic arthritis of wrists and fingers. Once she was told by Mr. Critchett that she had "gout in the eyes." The younger sister describes ten years ago an attack of shoulder neuralgia attended by torticollis which kept her in bed six weeks and was accompanied by agonising pain, as if her arm were in the fire. She also has suffered most severely from neuralgia on many occasions.

Here then is a family so definitely gouty that a brother and sister have each had true gout and several other sisters are crippled by rheumatism; one sister has become almost blind with neuro-retinitis, and has suffered from neuralgia, torticollis, facial paralysis and an attack which was probably neuritis of the brachial plexus. Another sister is deaf, has been all her life liable to neuralgia, had a several years attack of pain in her eyes which was called "amaurosis," and in later life one which was named "gout in the eye." It seems highly probable that we have here an instance of gout affecting, at different periods of life in each sister, different parts of the nervous system, and attended by true neuritis of various nerve structures.

Glaucoma in Relation with Gout.

I had intended to have said a good deal as to the nature of glaucoma, and the evidence as to its connection with gout. The subject is, however, too important to be discussed hurriedly, and I have not time to attempt to do it justice. I must therefore content myself with the mere expression of opinion that in the production of this extraordinary disease a gouty tendency often takes a large share. More particularly would I suggest this in the exceptional cases in which glaucoma shows itself in early life, and I could, if time permitted, bring before you some important cases illustrating this point.

Retinitis Hæmorrhagica and its connection with Gout.

There is yet another definite and well characterised affection of the eye which claims conspicuous mention in connection with our subject.

Retinitis Hæmorrhagica is very rarely indeed seen excepting in those who are themselves gouty. It is a disease of middle life or of advancing years, and in its more typical forms is never seen in the young. It seldom happens to both eyes at once. It is attended by great swelling of the disc and adjacent parts of retina by such turgidity of the central vein that I was at one time tempted to believe that it depended primarily upon thrombotic phlebitis of that vessel. It is possible, however, that such is not its true pathology, and that the venous distension and stasis, perhaps in some instances thrombosis, are really secondary to the neuritis. If this be the fact and neuro-retinitis be the

primary condition, then we have in retinitis hæmorrhagica an instance in proof that acquired or humoral gout may become the cause of neuritis. It is not, I think, ever seen in association with the inheritance only of a gouty constitution, but is found with lithæmia in free livers who have usually experienced unequivocal attacks. The case which Jæger took for his beautiful plate in illustration of the disease was that of a tavern keeper of plethoric habit and bloated appearance. Nothing is said as to gout, but it is fair in such a man to assume that there was a tendency to it. In order to determine statistically, as far as practicable, the association of retinitis hæmorrhagica with gout, I have tabulated 24 cases, with the exception of the one of Jæger's all from my own note-books. In twelve of these, exactly one-half, the patient had suffered definite attacks of gout, and in five others there was strong presumptive evidence of a gouty constitution. In seven there was no proof of gout. This last group comprises two in which diabetes was present; one in which albuminuria existed, and two in which the retinitis was not very well characterised as of the hæmorrhagic group. If I had kept more closely to the type of cases illustrated by Jæger's portrait, I should have been able to make yet stronger statements as to the almost invariable association of the disease with gout. It may be of interest to state a few other facts deduced from my table. Thirteen of the patients were men and eleven women. The youngest was 45. In seventeen cases only one eye was affected, and in seven both. In some cases there were hæmorrhages only, with little, if any, evidence of neuro-retinitis.

Summary.

I must now bring my lecture to a close, and in doing so may, I think, venture to assume that it has been shown to be probable that there are many different forms of inflammation of the eye, or of parts of it, which are in connection with gout. Some of these are very peculiar and specialised types of disease, and have already been accorded distinctive clinical names; others quite as distinct are not as yet so well known, and of others we may say that they are to be distinguished from other inflammations of the same structures not so much by their features as by their cause. Of all we may assert that they are infrequent; some, if we confine ourselves to well-marked types, are distinctly rare. We have divided these different affections into two groups: (1) those which go with acquired, humoral or renal gout, and (2) those which depend upon the inheritance of structures damaged, or at any rate specialised, by gout in predecessors. It is needless to repeat that in almost all cases of acquired gout there is inheritance also, and that in many in which the disease is chiefly caused by inheritance, some modification and increase may have been derived from personal habits. Still, the difference between the two classes of affections is very marked. In the one attacks of a transitory nature are the rule, and these attacks are often acute and attended by much pain. In the second group, although a tendency to temporary recovery and recurrence is often observed, yet there is a great proneness to chronicity and persistence. The invasion is often insidious, but the disease is usually in the end destructive. In the former group we have placed hot eye, sclerotitis, recurrent iritis, and retinitis hæmorrhagica. All these are diseases of adult life. In the second group we have insidious disorganising iritis, relapsing cyclitis, certain forms of soft cataract, and perhaps some of primary optic neuritis. Not only are there clearly marked clinical differences between the two classes of affections, but the difference in treatment is equally marked. In the first the well-known measures against gout must be taken, a restricted regimen, alkalis, colchicum, and aconite, and liberal counter-irritation. In the second we must use tonics, and although counter-irritants are here also often valuable, we cannot trust to any measure as really curative short of complete change of climate.

On the Proofs of Gout.

It may be, perhaps, convenient to say a few words as to the kind of evidence which justifies a diagnosis of gout as the cause of any particular disease of the eye. In the case of humoral or acquired gout there ought to be the history of one or more definite attacks of joint inflammation usually of an acute character, and attended by redness and œdema, and followed by peeling; usually the great toe will have been the joint affected. Such patients will often state that they are very susceptible to the influence of beer and wine, and that malt liquor and some wines almost always cause indigestion, and make the urine muddy. These dietetic disturbances, to which as a test of gout attention was, I think, first claimed by Sir James Paget, are very important and valuable. If tophi are present in the ears or elsewhere they are of course conclusive. In a few cases we are justified in assuming the existence of humoral gout, although no paroxysm has ever occurred. If the dyspepsia be there, if the joints ache and prick after beer or wine, and if there be gout in relatives, we may confidently believe that it is present, although not yet declared. As regards the inherited form, we may take it as highly probable whenever parents or grandparents, or any one of them are known to have suffered definitely. If even uncles, aunts, brothers, or sisters, or cousins have suffered from true gout in early life, the belief that a family taint exists becomes very probable. The evidence must always be carefully sifted. It will not do to take the statement of the patient without first carefully informing him as to the scope of the enquiry. Patients will often confess to gout who do not know what the word means, and a far more numerous class will hastily deny its history, although the facts, when correctly obtained, may be most conclusive. If, however, proper care be taken, and the patient, after being instructed, be allowed time for consideration—above all, if the enquiry be repeated after an interval, or if several relatives be interrogated, then I believe that in most cases truthful data will be obtainable.

It may be enquired as to the value of certain affections which may be considered to belong both to rheumatism and gout, as symptoms of the latter. Permit me very briefly to repeat my creed. I believe that the subjects of gonorrhœal rheumatism are in a very large majority of instances the inheritors of a gouty constitution, and that all the conditions usually classed as rheumatic gout are really, in most instances, dependent in a large degree upon like inheritance. Thus, if a patient has had sciatica or lumbago, if he shows nodi digitorum (osseous, not tophi), if he has suffered from chronic rheumatism affecting the smaller joints, I should think it fair to allow considerable weight to these facts as pointing to a taint of gout. Even the strictly rheumatic disorders, acute rheumatism itself, if it happens to the relatives of those who have had gout, lends support to the theory of family tendency to gout. It is an observation as old as the days of Heberden, and confirmed I am sure by daily experience, that the children of the gouty are more liable than others to attacks of rheumatic fever. In this we see another proof of the inheritance of structural proclivities, rather, I think, than of blood disorder or tendency to it.

Conclusion.

And now, gentlemen, as my last word, I do not know whether I have to defend myself in the eyes of any of you from the charge of "seeing gout in everything." I am well aware that this diagnosis is a very easy one,

and seductively ready at hand for the idle prescriber. I submit, however, that it has not been exactly in that temper that I have brought before you the statements which I have made this evening. My desire has been to state the issues explicitly, and to keep close to facts. Where statistics were admissible and obtainable I have had recourse to them. I may assert that I have said nothing but what has been based not only upon clinical observation, but upon clinical note-taking, and the subsequent collation of cases. Nor, I contend, have I made any very sweeping statements. So far from my having exceeded the truth, my conviction is that when our clinical pathology shall be more advanced, and diseases more minutely classified, we shall in all probability recognise as gouty yet other maladies, and perhaps not a few beyond what I have claimed. It is a subject upon which scepticism is as irrational as credulity. That the gouty constitution exists, and is very common in our English population, that it is potent in the production of disease, and that it is remarkably hereditary, are facts which no one will doubt. In relation to the multiform diseases of the eye it must have a domain, and that an important one. To discover some of the extensions and limits of that domain has been the object of my best endeavours to-night.

THE SELF-EDUCATION OF THE MEDICAL STUDENT.[1]

By W. T. GAIRDNER, M.D., LL.D.,
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In the course of a visit to London, not many weeks ago, I had the opportunity of studying, with some detail, one of the most interesting and valuable of all the departments of that great and successful show and treasury of things new and old which, by a process of almost spontaneous evolution in the English language, has come to be designated by a new word—the Healtheries. There I found Mr. Watson Cheyne in the midst of his germ-culture—surrounded by test-tubes of gelatine and surfaces of carefully prepared material ready to receive, or having already received, those minute and careful inoculations of particles of living matter, which we are every day learning to recognise more and more as the seminal principles of many important and disastrous forms of disease, as well as the essential factors in fermentation, putrefaction, and all manner of decompositions of organic matter.

The peculiar feature of a modern laboratory of this kind, as most of you probably know, is that we seek to cultivate, out of the body and at will, those micro-organisms which it is most important for us to study in reference to the prevention or the treatment of disease—to determine the growth before our very eyes, and under conditions where their whole life history can be accurately followed, of those individual organisms which, occurring, as it were, by accident, and in spite of our best arrangements, do so much to mar the healing of wounds, the safety of surgical operations, &c., or which, by directly causing disease spontaneously, are immensely destructive of human or animal life. And in order to have these minute organisms separate and distinct from each other, the experimentalist strives to have what he calls pure cultivation — *i.e.*, cultivation only of one organism at a time, and this on a surface or in a medium previously sterilised artificially—*i.e.*, deprived of all accidental traces of such organisms growing there contrary to the express design of the operator.

It was while pondering over the wonders I had personally witnessed, under the guidance of Mr. Watson Cheyne, that it occurred to me that some figurative application of them might be made suitable as an introduction to the address you have called upon me to give you, gentlemen of the University Medico-Chirurgical Society, when thus gratefully acknowledging your kindness in having named me as your annual honorary president. The purpose of this address, which, I fear, must after all be very unequal to my intentions and to your goodwill, is to make a few reflections or suggestions as to what I have termed "self-education"—meaning thereby something outside the regular discipline of your curriculum, and yet not so entirely removed from your professional work as to be even apparently foreign to, and apart from, it : in other words, not the more general—moral, religious, ethical—discipline which is usually applied in "self-culture," as, for example, it has been admirably treated in a little book by my old friend Professor Blackie. To get an insight into this higher kind of self-culture I do not know that I could direct you better than by sending you to this small book on a great subject, or, if you would prefer to be instructed by a member of our own profession, to the exquisitely humorous and humane essays of another dear old friend, now lost to us—the author of the immortal tale of "Rab"—the late Dr. John Brown. No one can read the works of either of these authors without feeling the stirring within him of new impulses and new feelings, all of them in the direction, at least, of the best and largest wisdom—that wisdom which is even better than science.

My aim to-night is something short of this, and yet not without alliance therewith—to show you that, even in the midst of the medical education, so called, which is laid down for you in your curriculum, and which is therefore compulsory, and may be even felt by some of you as a bondage, there is a good deal over and above, which is really and truly a part of medical education, and which you can only do effectually for yourselves. And as the proper province of a society like this is precisely to strengthen and confirm such tendencies, and to make such "self-education" possible, or easier, to you, it will serve to limit the province of my discourse if I keep in view chiefly, but not exclusively, what I think this society may do, or may aid in doing, for all of you.

But to return to my simile. Is not all education, properly so called (as distinguished, at least, from mere erudition or cramming) a process more or less resembling that by which Mr. Watson Cheyne grows his minute organisms? You will be disposed at first to laugh at me if I liken the human mind, medical or other, to a cut potatoe or a lump of soft gelatine, and especially of sterilised gelatine. Well, I am not disposed to stand out for the comparison in this last particular; for, as I mean presently to affirm, it is impossible, however you may try it, altogether to sterilise the human mind. But this may at least be said, that the mind of man, from babyhood upwards, presents a fruitful soil on which you may grow almost anything you please, provided only that the thing in question is alive, or has the potency of life in it, as is the case with a seed or germ. And the true distinction between education, properly so called, and what I have termed mere erudition or cramming, is that the latter consists of putting into the mind lifeless or comparatively inert matter, not necessarily useless, inasmuch as it may make a good manure, but not seminal, and therefore not capable of growth ; while the former consists in a process of inoculation or insemination of the

[1] Part of an Address delivered to the Glasgow University Medico-Chirurgical Society, November 14th, 1884.

mind with principles which, being alive and fitted for growth, and finding there a fitting soil, inevitably tend to grow and develop into organisms. And if this is the essential nature of all education, properly so called, that it is a growth as of a seed into a plant within the mind, the argument is not invalidated by the fact that there may be, nay there must be, a bad education possible as well as a good.

The principles of evil, nay the seminal principles of disease, will grow in that fruitful soil of the human mind just as well as the principles of good, in some cases, perhaps, still more actively and irrepressibly. The one point in both instances which makes it an education is that it is a growth; that in the act of developing into an organism the seminal principle implanted or inoculated alters the very constitution of the mind itself as effectually as the yeast fungus changes the nature of a saccharine solution, or the septic organism disintegrates the nitrogenous elements in which it becomes developed. And to make the analogy still more complete, this education, or insemination, of the mind for good or for evil is, in reference to other minds, of the nature of a contagion or infection. A small, often an infinitesimal, inoculation of the results of education in one mind will be sufficient so to influence another, or even a multitude of other minds, as to give rise to a similar growth in them to an extent practically limitless, so that a single truth in science, a single principle of working in an art, a thought that breathes, a word that burns, may spread its influence through a family, a school, a profession, a nation, aye, it may be over the whole civilised world, as surely as the *torula cerevisiæ* will multiply in any number of saccharine solutions, or as the germs of anthrax, or of small-pox, or of cholera will spread through any number of flocks and herds, or of human beings, all over the world, if only they find a fitting, and, still more, an exhausted or virgin soil for their development.

Now, it is not necessary for my present purpose to carry this parable further, and I have already indicated one point in which, to my mind, the analogy breaks down. Mr. Watson Cheyne is enabled to ensure what is called a pure cultivation of the particular organism he is in quest of by successive inoculations of it in artificially sterilised soils—*i.e.*, in *media*, in which by the most careful manipulations he has secured in advance the absence of all other germs than the one he is pleased artificially to introduce. But it is extremely difficult, even with the command of all the resources of a laboratory, and a complete control of all the materials with which he is working, so to sterilise absolutely even a piece of cut potatoe. And in the much larger laboratory of educational activities which this world presents it may be looked upon as a practical impossibility to sterilise absolutely any single human mind. If you do not implant, or inoculate, the right kind of germs, or educational influences, in sufficient abundance, or if you do not place them in the necessary conditions for their growth, other influences will certainly occupy the field, and will grow there in spite of all your efforts, till the mind becomes, like the world in the eyes of the Prince of Denmark :—

> "An unweeded garden,
> That grows to seed: things rank and gross in nature
> Possess it merely."

As some theologian—I forget at this moment who—has expressed it, if you do not receive God's teaching Satan will be sure to insinuate an education of a different kind, the elements of which will not fail in our poor human nature to find a fruitful soil in which to luxuriate, till they end in having the whole field to themselves. Now, here is especially the province of "self-education," or self-culture, whichever you choose to call it. Not to pursue the higher aspects of the subject referred to in my last sentence, you may say that each one of you is or ought to be consciously educating himself throughout with the view to an ideal of professional and medical skilfulness, of complete equipment for the duties of life, which ideal ought to be kept steadily in view from the first.

Apart altogether from the mere technical curriculum, which, of course, is not to be despised or evaded, you will find that if you keep this ideal well in view there are qualities and accomplishments of mind and heart, aye, and of eye, and ear, and hand to be cultivated, and others to be sternly repressed; habits to be diligently learned and others to be unlearned; even small social usages, and apparently insignificant peculiarities of manner and conduct, which, through the sheer influence of association, may acquire such an ascendency as to make or mar the settled purpose of a life. Is it not worth while, then, to make all these things, while you are as yet young and immature, the objects of a deliberate self-education; to study carefully such examples as are presented to you of the fully-formed medical character, and to observe for yourselves how its best and most congenial elements may be cultivated and its defects avoided? The difficulty, of course, is first to find your ideal; next, to successfully strive after the realisation of it in yourselves. But this, at all events, may be said, that if you do not so seek and so strive there will be for you no chance whatever of even the most moderate success of a legitimate kind in your profession; whereas, if you do so seek and strive you may, indeed, fail of your highest aspirations, but you will in no case fail utterly and ignobly.

Let us try, then, to make note in succession, and in the briefest possible way, of those qualities or endowments which it might be reasonable to expect you at this stage of your career to cultivate, and by cultivating carefully and purely, to exclude as far as may be their opposites—qualities moreover which when possessed or cultivated in their highest degree go far to make up the ideal of a physician or surgeon, as the case may be. I do not think any of you will be disposed to quarrel at first sight with the following mere enumeration of them; although were it possible within the compass of an address, or at all events possible for me to say to you all that they imply, you might complain that the ideal is too high for you, or for any man, to compass successfully. But that you know is of the very essence or nature of all ideals whatever; so let us proceed boldly to present to you the mere outline of our ideal medical practitioner.

(1) He must be a careful and accurate, and at the same time a keen and quick, observer of nature.

(2) He must be able to connect his isolated observations of fact by rapid, and at the same time trustworthy, processes of reasoning.

(3) He must, in dealing with emergencies, endeavour to have always what the Greeks (and Dr. John Brown after them) called *ἀγχίνοια*—nearness of the *νοῦς*, *i.e.*, presence of mind.

(4) He must as a surgeon or accoucheur have much deftness of manipulation—manual dexterity, as we call it; or, perhaps still better, ambidexterity.

(5) He must treasure in his memory, and be constantly increasing from day to day, large stores of various reading in his own and other languages, in order that not only all past observations, but also the vast field of scientific progress in its relation to his art may be constantly before him, or at least freely accessible when wanted.

(6) He must be able to write, at the very least in his own native language, with vigour, compactness, and lucidity.

(7) He must have a soul above mere money-grubbing; must on no account degrade his profession into

a trade, but must be, as far as is possible to human nature, the disinterested friend, the companion, the good genius I had almost said, of all his patients.

(8) For this reason, if for no other, he must in every case have in him the distinctive essence of what is called a gentleman ; and if his practice is, or is ever to be, among what are called the upper classes, he must be a gentleman not only in principle, but in detail ; not necessarily what is vulgarly and falsely often styled a fine gentleman, but a gentleman in outward manner as much as in the inner spirit.

(9) He must be a man endowed with a deep sense of moral responsibility, so as to beget confidence and unfailing trust in him on the part of his fellow-men. Responsibility, therefore, to them in the first instance ; but, underlying that, and sustaining it as surely as the root and the stem sustain the flower—a deeper and more latent responsibility to Him who is the source of all good, and, therefore, of all moral principle and moral responsibility whatever.

[The remainder of Dr. Gairdner's address consisted of a more detailed treatment of the first two headings of the above ideal, with brief remarks on the others].

THE ACTION OF HYDROCHLORATE OF COCAINE ON THE EYE.

By GUSTAVUS HARTRIDGE, F.R.C.S.

Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham, and Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

I HAVE recently been making some observations on the action of hydrochlorate of cocaine on the eye.[1] On placing a single drop of a four per cent. watery solution into my own eye, it produced anæsthesia of the cornea and conjunctiva in about half a minute, so that the finger could be passed over them, or the conjunctiva taken hold of with forceps, without any unpleasant sensation. The anæsthesia remained for six minutes, and then gradually disappeared. The pupil became dilated in about twenty minutes from the time of the instillation, together with slight paresis of accommodation. Gradually these effects passed off, so that in four hours the pupil was of the same size as in the other eye ; in twelve other eyes similarly treated the same results ensued. This four per cent. solution was also tried in the following :—

Five cases of foreign bodies on the cornea. In each the foreign body was removed, without the least pain or flinching of the patient, in about one minute after a drop of the cocaine had been instilled.

Ten cases of ulcers of the cornea, with great photophobia. In many of these immediate relief was given to this distressing symptom, and in some the relief was permanent ; in others the instillation had to be repeated.

Two cases of abrasion of the cornea, with much photophobia. Great relief was at once given by a drop of the cocaine solution.

Case of cataract, on which Mr. Power was about to operate, had five instillations of two drops each, at intervals of five minutes. The opaque lens was then removed without an iridectomy. The patient gave no indication of pain, and said that the operation did not hurt in the least.

Case of iridectomy for glaucoma. The operation was done after two instillations, with an interval of five minutes between each. The patient complained of much pain both when the incision in the cornea was made, and the segment of iris was snipped off.

Case of needling for opaque capsule. After two drops with an interval between each, a speculum, fixing forceps, and needle were used without any unpleasant sensation.

Case of entropion of the lower lid, requiring the excision of a piece of skin. Two drops of the cocaine solution were injected by means of a hypodermic syringe beneath the skin about to be excised ten minutes before the operation ; one drop was also placed between the lids. A good deal of pain was felt on the removal of the skin. Two drops were also injected into a small pigmented growth near the external canthus of another patient. The growth was then removed. It was doubtful if the pain of the operation was at all relieved.

Case of obstructed nasal duct. Two drops were instilled at a short interval five minutes before slitting up the canaliculus without any diminution of the pain usually felt.

From these experiments the following deductions may be drawn :—

First, that hydrochlorate of cocaine is of considerable value as a local anæsthetic in the following cases : (*a*) In diseases of the cornea where photophobia is a prominent symptom. (*b*) For the removal of foreign bodies from the cornea. (*c*) In all operations affecting the cornea and conjunctiva only. (*d*) In cases of cataract extraction, where it is undesirable to give ether or chloroform.

Secondly, that it is of little or no value—(*a*) in operations involving the skin ; (*b*) in operations on eyes suffering from glaucoma, even if considered advisable.

Further observations are needed to confirm these experiments and to determine the strength of the solution which produces the best results, together with the most satisfactory mode of applying it, whether in a watery solution, in oil (in which it is readily soluble), in vaseline, or in discs, and if frequent applications at short intervals produce a greater effect than a single drop. I hope on some future occasion to be able to give some more observations bearing on these points.

[1] Cocaine is the alkaloid derived from Erythroxylon coca.

A CASE OF SUB-ASTRAGALOID DISLOCATION OF THE FOOT.

By FREDERICK W. KIRKHAM.

Surgeon to the Royal West India Mail Company.

ON September 4th, 1883, J. W., a seaman in the employ of the Royal Mail Company, fell from the foreyard to the spar deck of the *Don*. He was picked up in an unconscious state from which, however, he quickly recovered. Upon examination he was found to have fractured his right humerus, and to have incurred an injury to his right foot. This injury presented the following characters. The dorsal surface of the foot appeared abnormally short, and presented a well defined rounded prominence over the scaphoid bone. Viewed from the inner side the foot appeared somewhat extended, shortened from the ankle joint to the end of the toes, whilst the heel was abnormally prominent. By manipulation the prominence before mentioned was made out to be the head of the astragalus resting on the superior surface of the scaphoid bone, the inner surface of the former being in an almost direct vertical line with the tuberosity of the latter. A little limited movement was obtained

in the ankle joint, free movement being prevented by the contraction of the muscles of the calf, and, as far as could be ascertained, the articular surfaces of the tibia and fibula were in apposition with the trochlear surface of the astragalus.

The injury was diagnosed as a case of sub-astragaloid dislocation of the foot backwards.

Chloroform was administered, and reduction attempted. After a lengthy and ineffectual trial by manipulation, division of the Tendo Achillis was performed, which enabled the dislocation to be quickly and easily reduced. The leg was put up on a flat posterior splint, with a foot-piece with two side splints, and pressure was applied by a pad over the astragalo-scaphoid articulation. The splints were retained for six weeks, after which passive motion was allowed. The patient did extremely well, and when last seen, six months after the accident, complained only of a little weakness in the foot; at that time the measurements of the bony prominences of the foot which had received the injury corresponded accurately with those of the left or uninjured foot.

The fractured humerus did well also.

Medical Times and Gazette.

SATURDAY, NOVEMBER 22, 1884.

We have from time to time made our readers acquainted with the precautions that have been taken during the last twelve months or so, in view of the approach of cholera; but as these measures were described in detail in the House of Commons on Monday last, by the President of the Local Government Board, in answer to a question on the subject by Mr. Moore, it may be useful to re-state them here. The "precautions against the infection of cholera" at our various ports constitute our first line of defence. Regulations have from time to time been issued against the admission of rags from infected countries; and the orders respecting rags from France and Italy are still in force. The Local Government Board have sent Dr. Blaxall and Dr. de Chaumont to examine into the sanitary condition of the principal English ports, with special reference to their preparedness against cholera; and inspection of this kind will be repeated. The Board have made enquiry into each rumoured case of cholera on board ships coming to English ports, and in every instance it was found that the sanitary authorities were taking proper precautions against the importation of the disease. The duties and powers of Officers of Customs and Port Sanitary Authorities in the matter were defined in regulations issued in July last year, and were accompanied by an explanatory circular, and by a memorandum prepared by the Medical Officer of the Board; and all these precautions are still in force.

As regards London, special reports have been made to the Board, by Sir F. Bolton, on the condition of the water supplies. The Metropolitan Asylums Board have been taking steps for the provision of hospital accommodation, and the Medical Officers of Health, with the Vestries and the District Boards, have been consulting as to the most practicable and efficient preparations, and the best course of action should cases of cholera appear. Last year a Committee was formed by the Local Government Board for the special purpose of conferring as to the best practicable measures for the prevention of an outbreak of cholera, and the most prompt and effective means of meeting it should it occur. This Committee includes the Medical Officer of the Board, Dr. George Buchanan, who, we may remind our readers, had considerable experience of the disease during its outbreaks in England in 1854 and 1865; Sir William Jenner, Sir Joseph Fayrer, Sir Lyon Playfair, and representatives of the Foreign Office, the Home Office, the Customs, the Metropolitan Asylums Board, and the Local Government Board. The Committee has not been called together this year as yet; but a conference was lately held between representatives of the Metropolitan Asylums Managers, Members of the Medical Staff of the Local Government Board, and Sir Charles Dilke as to the fitness and readiness of arrangements to deal with any cases of cholera that may occur. It may be added that, if needed, further and more stringent regulations can be issued under the Diseases Prevention Act, 1855, and the Diseases Prevention Clauses of the Public Health Act, 1875.

The cholera here, our Paris correspondent writes, seems to be rapidly decreasing, as far as figures can be trusted. In an official communication read before the Municipal Council, M. Poubelle, the *Préfet de la Seine*, gave the following statements:

November	4th . . .	2 deaths.
„	5th . . .	1 „
„	6th . . .	14 „
„	7th . . .	14 „
„	8th . . .	33 „
„	9th . . .	69 „
„	10th . . .	98 „
„	11th . . .	89 „
„	12th . . .	86 „
„	13th . . .	75 „

On the ensuing days, official statements give the following figures:

November	14th . . .	56 deaths.
„	15th . . .	72 „
„	16th . . .	44 „
„	17th . . .	36 „
„	18th . . .	41 „

It cannot be doubted that the authorities sincerely endeavour to state the truth; but it would require the calculating powers of a Babbage or a Leverrier to reconcile the contradictory statements of the *Préfecture de la Seine*, and the *Préfecture de Police*, neither of which coincide with the figures of the *Bulletin Municipal Officiel*. That these contradictions do not arise from falsification of the real truth, but rather from "stupid honesty" is self evident; but I cannot attempt to give the daily number of cases, a point at least as interesting as the daily number of deaths, on account of these discrepancies, which it would be insincere to overlook, and arbitrary to conciliate. It seems, however, from all reports, (1st) that the epidemic is decreasing; (2nd) that its severity, as tested by the

proportion of deaths to the number of cases on record, is less intense than on former occasions. These results may fairly be attributed to the sanitary precautions taken, and perhaps to the cold weather and frost which have recently set in. At Nantes, the disease is slowly fading away; and a small epidemic has recently broken out at Melun.

It is sincerely to be feared that, after travelling all over Europe (cases are reported in Spain), the cholera will settle down as a naturalised inhabitant of Western Europe, like small-pox, measles, and scarlet fever, which were unknown to the Roman world, and were imported into the Western world by the Mussulman invaders of the 7th and 8th centuries. The importation is already an accomplished fact in some parts of Russia; but from these points a vast expanse of territory separates us, and the current of trade runs in other channels. If cholera settles in Europe, there will be an end of quarantines, and sanitation will be the only safeguard against future outbreaks of the epidemic.

"It is an ill wind that blows nobody good," says the old proverb; and the invasion of cholera may have proved instrumental in solving one of the difficulties of modern physiology. Dr. Pouchet has ascertained the existence of biliary acids in large proportions in the blood of cholera patients. Now the functions of the liver seem during cholera to be momentarily suspended; the stools are white, and the gall-bladder is empty. The secretion of bile recommences during the last, or typhoid, stage of the disease. It is well known that, according to certain physiologists, the principles of bile exist ready formed in the blood, and that the liver only excretes them, just as the kidneys excrete the materials of urine. According to the opposite school, the liver really secretes bile, just as saliva is secreted by the salivary glands. Now the experiments of Dr. Pouchet would seem to resolve the problem in favour of the doctrine of *excretion*, not *secretion*. Dr. Pouchet has also found in the urine of these patients an extractive substance, which possesses highly poisonous properties. This substance is distinct from *cyanurin*, which we know to exist in large quantities in the urine of subjects affected with cholera.

In order to prove the non-contagiousness of cholera, Dr. Bochefontaine has tried upon himself a dangerous experiment. He collects five cubic centimetres of the liquid fæces in the bowels of a female just dead from cholera; he makes them up into pills with lycopodium and gum arabic, and swallows them. Although the fæces were ascertained, by microscopic inspection, to contain a large proportion of microbes, including the comma bacillus, yet Dr. Bochefontaine experienced no trouble beyond slight anuria, fever, and nausea. He, therefore, boldly concludes that cholera is not contagious, and that there is no danger in drinking water polluted by the fæces of patients. To this it might be replied, that cholera, like other infectious diseases, only attacks those who, from unknown causes, are predisposed to contract them. The *receptivity* of the subject is a factor of as great importance as contamination itself.

The meeting of the Clinical Society on November 14th was very numerously attended. Two subjects only were presented for discussion. The first of these, the treatment of chronic dysenteric diarrhœa by means of large injections of nitrate of silver, was introduced by Dr. Stephen Mackenzie, who gave a detailed account of a series of cases in which he had obtained some very successful results. So successful indeed has the treatment been in his hands, that it is probable that it will shortly be put in practice to a far greater extent than has even yet been the case. Beyond the production of local pain, it did not appear that any evil results had ensued upon what at first sight appears a somewhat heroic procedure. That chronic ulceration of mucous surfaces is best treated by local astringents, or even by caustics, is a well-known fact, and although the necessarily blind injection of three pints of fluid, containing a drachm of nitrate of silver, into the bowel would seem to be a very indefinite mode of application, still, the results on record speak most strongly in its favour.

The second paper, read by Mr. Morrant Baker, brought forward the subject of the joint lesions in cases of locomotor ataxia, concerning which a great deal has already been said in this and other societies. That much remains to be decided before the disease can be definitely accepted as an individual affection, there can be no doubt. The discussion, however, tended to show that the view is gaining ground that the original opinions of Professor Charcot are correct. The different clinical history of these cases when compared with that of chronic arthritis, and the remarkable fact that among the very numerous cases of arthritis in the workhouses and asylums there are no cases of locomotor ataxia to be found, are strong points in favour of this view. The debate was adjourned to the next meeting of the Society, on November 28th, when it is possible, however, that arguments may be urged upon the other side. The Hon. Secretaries of the Society ask us to state that before the adjourned discussion there will be the usual opportunity for exhibiting living specimens at 8 p.m., and the Society will be grateful to any of its members who can show illustrative cases, more especially examples of typical rheumatoid arthritis, combined with ataxia, or typical Charcot's arthropathy without ataxia. We may add that Professor Charcot has promised to send over for the occasion a series of preparations from his own private collection to illustrate the disorder and its specific characters.

A correspondent writes, with regard to the discussion:—"The Clinical Society has committed itself to a scholastic disputation upon Mr. Morrant Baker's thesis of the essential identity of rheumatoid arthritis and tabes dorsalis. That the debate will awaken fresh interest in many points of these maladies, and that a good deal of useful miscellaneous information will come to the surface next Friday is very probable. That any

solid result will be forthcoming from so premature a discussion is hardly to be looked for. To discuss the truth of the proposition $x=y$ with but a faint glimmering of what x represents, and no knowledge whatever of the value of y, is an exercise more philosophical than scientific. We have traced locomotor ataxy and its attendant symptoms up to a certain lesion of the spinal cord; so far we have progressed, but very little further. The origin of the spinal lesion is still wrapt in obscurity. As for the pathology of rheumatoid arthritis, it is not too much to say that we know nothing whatever about it, except in its effects in the morbid anatomy of the damaged joints. To the cause of the damage, whether to seek it locally, in the blood, in the vessels, in the trophic nerves, in the trophic nerve-centres, or where else, we have as yet scarce the barest clue. In our present state of knowledge it is a patient search for facts that is needed; the time for speculation will come in due course.

At the Medical Society, on Monday last, Dr. Markham Skerritt, of Clifton, read a paper on the Conduction of Physical Signs in Diseases of the Lungs. It was universally recognised, he said, that the lungs acted as a conducting medium for physical signs in heart lesions, but it was not so fully appreciated that the physical signs of diseases of the lungs themselves might be detected at a distance from the spot where they originated. He argued (1) that physical signs due to disease of a limited portion of lung were liable to be conducted by the adjacent tissue so as to be recognised at a distance from the site of the lesion—as in front when the disease was at the back, or over the sound lung where one lung only was affected. (2) That it was therefore as important to trace to their origin the physical signs dependent upon lung disease as it was to follow out those of a cardiac lesion. Instances were given of the adoption by a consolidated lung of the signs of pneumothorax derived from the other side, the transmission to the sound side of the tubular breathing of pneumonia, the interchange of physical signs between the affected side and the unaffected in pleuritic effusion, the conduction of the physical signs of phthisis from one apex to the other, and the conveyance throughout the pulmonary region of sounds having a strictly localised origin. The physical signs, he said, which were most liable to be conducted were those of auscultation, and chiefly *râles*, and altered breathing. In the localisation of a conducted sign in lung disease the process was the same as with a cardiac lesion. In conduction a physical sign retained its special quality, but lost in quantity in proportion to the distance from its source. The readiness with which a sound was conducted was also of value, he argued, as an indication of the state of the transmitting tissue. At the same meeting, Mr. Noble Smith exhibited the child who was shown last year with a meningocele, which he had since successfully treated by subcutaneous injections of the iodo-glycerine solution. The sac, situated on the occipital bone, was originally as large as a walnut; it was now no larger than a small marble, and was quite hard and solid, while the child was in good health. Mr. Smith had injected the fluid into the subcutaneous tissue of the scalp, and not into the sac. Apart from the rarity of the lesion, the success of this treatment is most gratifying.

At the meeting of the Pathological Society, last Tuesday, the most important communication was that of Mr. Sutton on behalf of the Committee on Comparative Pathology, in relation to a study of uterine and ovarian disease in all species of wild animals including, as he somewhat humorously said, the human female. The result of this investigation showed that ovarian disease was more commonly present in animals born in confinement than in those more strictly wild. Cystic disease of the ovary, due as he believed to dilatation of the tubules of the parovarium, was discovered in no less than two-thirds of fifty mares chosen at random. Dr. Percy Kidd showed a specimen of perforation of the pulmonary artery from bronchial ulceration, the result having naturally been a sudden and fatal hæmoptysis. The bronchial ulceration appeared to have been due to pressure of an enlarged gland. Dr. Kidd spoke of it as an extremely rare occurrence; we believe that it is less rare in the child than in the adult. Dr. Carrington showed a case of gastric ulceration associated with ulcerative endocarditis. Dr. Norman Moore exhibited a case of what must be admitted to be a most rare occurrence, namely of carcinoma of the stomach in a girl of 13. We should hardly be prepared to attach so much importance as he did to the fact that the child's paternal grandmother had died of carcinoma of the colon. Mr. Knowsley Thornton brought forward a specimen of hydronephrosis, and Mr. Hopkins some bones from cases of locomotor ataxy. There were several card specimens.

The subject of nephrectomy will be brought before the Royal Medical and Chirurgical Society on Tuesday next, November 25th, in a paper by Mr. Henry Morris. An interesting discussion is expected to follow, in which, besides others, Sir Andrew Clark, Sir Henry Thompson, Mr. Savory, Mr. Bryant, and Mr. Hulke will probably take part.

At the opening meeting of the Pathological Section of the Academy of Medicine in Ireland, on Nov. 7th, there were two papers of considerable interest which gave rise to some discussion. The first of these was by Mr. Kendal Franks, and related to a case of intussusception of the small intestine. The symptoms were very obscure, and he was only able to surmise before operating that the obstruction was situated in the small intestine. When the abdomen was opened the intestine was found to be almost gangrenous, and it was quite impossible to draw out the intussuscepted portion. The patient died a few hours after the operation. The debate turned mostly on the question of diagnosis and of operative interference, one speaker suggesting that probably the changes which had taken place in the intestine indicated the natural process of cure by sloughing and separation of the intussuscepted portion of intestine. The second paper related the case of a girl, aged 19, operated upon by Mr. Wheeler (who made the communication to the Society), for a hypogastric tumour which had originated behind the recti abdominis muscles, and had some connection with the periosteum of the pubic bone. The tumour

was removed and proved to be a spindle-celled sarcoma; there was an enlarged gland in its vicinity, also exhibiting sarcomatous characters. The patient died some five weeks after the operation, but the exact cause of her death did not transpire.

The second annual dinner of the Guy's Hospital Universities' Graduates Club was held, under the presidency of Dr. Galabin, at the Holborn Restaurant, on Monday, November 17th. A goodly number of graduates of the Universities of Oxford and Cambridge at present connected in various capacities with Guy's Hospital were present. The club is essentially intended for the social union of present students and teachers at the hospital, but by a wise elasticity of its rules, the presence of former members of the club will be permitted at future meetings. The very large increase in the entries of medical students at the older Universities has given rise to the establishment of several University Clubs of late and will tend to unite all former graduates at their respective hospitals in a manner which will materially improve the general social tone of those institutions.

The Council of the College of Surgeons have made but little progress at present with the important questions of procedure which are now under their consideration. Considering their importance, the wide ground they cover, and that they involve traditions almost sacred to the College authorities, we are not surprised at the delay. The Ordinary Council, doubtless, after discussing them, referred these questions to an Extra-ordinary Council, which, in their turn, have referred them to the Committee on Charters and By-laws. Meanwhile the Councillors have time to study the charters, and to turn the questions at issue over in their own minds; nothing is more likely to reconcile them to the proposed changes, or to impress on them the incongruities and the short-comings of the present system on which the College is worked. We trust that the present crisis will be solved in a manner which, while supporting the dignity of the College as a public institution, will secure for its body corporate that voice in its affairs and management which their number, their education, and social status give them the right to expect.

It is not altogether surprising to find that the lately effected union of the two London Colleges is not regarded with universal approval in the provinces. From the point of view of the provincial schools there are only two objects to be aimed at in any alteration of the existing system. Either the present mode of examining and granting diplomas should be rendered more convenient and less expensive, or some new plan should be devised by which a better class of qualification can be obtained for the same amount of trouble and money. Under the provisions of the scheme, as sanctioned by the General Medical Council, it is by no means clear that a saving of inconvenience will be effected, and certainly there will be no relief from expense. The relative value of the double qualification can only be determined by its ultimate popularity. Perhaps the most important consideration to the country candidate is the question of cost. College fees are in some cases formidable enough, without the additional burden of an enforced residence in London for a week or ten days, for the purpose of attending an examination which does not occupy as many hours. It is, of course, essential that due time should be allowed between the paper work and the *vivâ voce*, in order that the examiners may not be hurried in forming their estimate of every candidate's papers. There does not appear, however, any adequate reason for the present custom which obliges all candidates to come to London for the purpose of writing these papers. No great inventive effort is necessary to devise a scheme whereby provincial students might be enabled to write their examination papers within the limits of their own school buildings, or even at special local centres, under the most impartial supervision. Their attendance at the London centres for the purpose of *vivâ voce* examination might then be limited to a few hours if necessary. We are glad to learn that a petition is about to be presented to the Colleges of Physicians and Surgeons respectively, bearing the signatures of the Deans of the more influential provincial medical schools, praying that an arrangement of this kind may be embodied in the new scheme of Conjoint Examination. The granting of this petition would greatly add to the popularity of the new double qualification and might indeed serve to turn the scale of the balance in which the scheme is now being weighed, and by which in some quarters it has already been found wanting.

Here is an item of intelligence not calculated to raise the depressed spirits of our London teachers:—"The returns from the tutors show that 111 medical students have entered the University of Cambridge this term as freshmen. This number may be increased after the December previous examination, as some students postpone making up their minds as to medicine until this examination (the preliminary required for registration) is passed." In 1882 the number of entries, according to the medical registrar's returns, was seventy-six. That is to say, in two years the number of students commencing their medical education at Cambridge has increased by over 50 per cent., and the Cambridge School has leapt into the position of the second largest medical school on this side the Border. Another point worth noting is, that the large majority of these 111 students will succeed in getting their degree, whereas, if they had been so foolish as to compete for the London degree not more than twenty at the outside would have succeeded in passing the Second M.B., and the rest would have had to be content with a simple diploma. There yet remains a third point for comment, which is this—the policy of the Cambridge School is controlled by men who are active teachers. At the London University, on the other hand, there is hardly a single medical member of the Senate who is still employed in teaching, and very few who are thoroughly *en rapport* with the present lecturers at the medical schools. The Annual Committee of Convocation contains three or four medical teachers, but it is only a consultative body, which has very little influ-

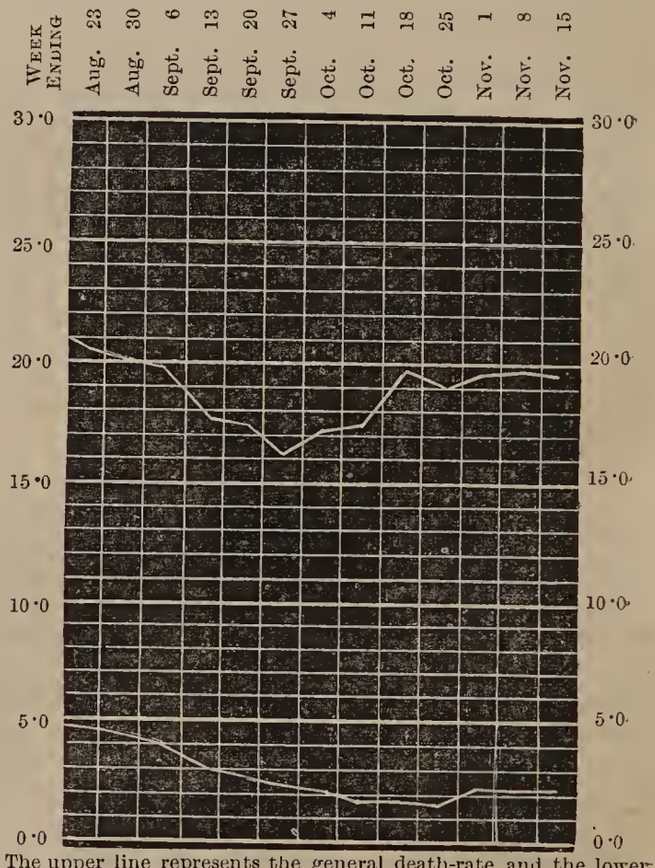
ence on the decisions of the governing committee. It is high time for the Senate of the London University to wake up from its complaisant dreams of its past successes, and to adapt itself to its altered environment.

To look at the matter from the meanest point of view. One hundred and eleven students this year begin their medical education at Cambridge (intending, no doubt, to finish it in London); forty-nine students having begun it in London have gone this year to finish it at Newcastle (Durham); in all 160 students. Of these we may fairly estimate that 100 would have taken their complete curriculum in London if they had seen a reasonable prospect of capping it with a degree. Put the fees that go into the pockets of Cambridge and Newcastle teachers at twenty-five guineas for each student—a low estimate—and it is obvious that London teachers are losing 2,625*l.* yearly, because there is no practicable London degree. Next year, if we are not mistaken, this figure will go up to 4,000*l.*; and where will it be the year after that?

We have looked forward to the Registrar-General's report for the third quarter of the present year with some interest, as the season with which it deals was one of quite exceptional character, and it was difficult to predict exactly what effect a long period of heat and drought would have upon the distribution of disease. Last summer was the first really hot one that we have had since sanitary activity became general throughout the country, and there is probably nothing which finds out the weak places in our armour like continued drought. The mean temperature of the quarter was 3·0° above the average in the preceding 112 years, and that of August was as much as 4·4° above the average. The rainfall of the quarter was 2·87 inches below the average. As a result of these meteorological conditions we find a general death-rate for the whole country (19·7 per 1,000), 1·1 above the average; but while the death-rate of the 28 great towns was 2·3 and that of the towns generally 1·3 above the average, that of the rural districts only exceeded the average by 0·5. On turning to the zymotic death-rate we find it in excess of the average by 0·55 per 1,000, an excess almost exclusively due to the greater fatality of diarrhœa; for the deaths from scarlet fever, whooping-cough and fever were below the average, while those from measles, small-pox and diphtheria were only slightly above it. The diarrhœa death-rate for the whole of England and Wales was 2·72 per 1,000, or 0·81 above the average; but it was 3·9 in the 28 great towns, and 3·2 in 50 other towns; whereas in the rural districts it was only 2·0, and in many counties only 1·0 per 1,000. In 12 of the great towns it was over 5·0 per 1,000; in 4, namely, Norwich, Nottingham, Preston and Leicester, it was over 6·0, mounting in the last two towns to 8·3 and 9·1 respectively. Both of these centres, however, have a high diarrhœa death-rate almost every summer, their average for the last ten years being 6·4 and 7·1 respectively.

It is curious to trace the rise in the diarrhœa death-rate in correspondence with the rise in the thermometer. The chief heat occurred during the first three weeks in August, and the average diarrhœa death-rate of the 28 great towns accordingly reached its maximum in the weeks ending August 23rd and August 30th. In London, however, the death-rate reached its maximum in the third week in July, as the result of a hot spell with a temperature 5·2° above the average, which terminated on July 11th. In the August heat, when for eighteen days the mean temperature was 5·9° above the average—on one day, the 8th, it was as much as 10·4° above it—the diarrhœa death-rate in London remained comparatively low, being more than 3·0 less than the average in the 28 towns. This is well shown in a table given by the Registrar-General, from which we see that of the 28 great towns only one, London, had its maximum death-rate from diarrhœa in the third week of the quarter, and only 2, viz., Leicester and Derby, in the fourth week; while in the case of all the other 25 towns the maximum occurred after the August heat, viz., in 2 in the seventh week of the quarter, in 12 in the 8th, in 7 in the 9th, in 5 in the 10th, and in 1 in the 11th week. There must be some cause for such different conduct on the part of the different towns, but what it is we are at a loss to say.

The Registrar-General has again this week a favourable return to make, both the general and zymotic death-rates being about the same as last week. The total deaths registered in London last week were 256, the deaths from zymotic diseases 85, and the deaths from respiratory diseases 86, below the ten years' averages. The mortality from small-pox unfortunately continued to increase, 49 deaths of London residents having occurred in the week; the admissions



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past thirteen weeks.

into hospital, however, fell from 233, the number of the previous week, to 199. The deaths from the rest of the common zymotic diseases, except diphtheria, were considerably below the average, those from measles, scarlet fever, and whooping-cough, taken together, being nearly one hundred fewer than usual at this period of the year. But there were fourteen deaths from puerperal fever, the average being six. The mothers, however, took their revenge, exactly the same number of infants (fourteen) having died from suffocation, in most cases, probably, from being overlaid. The average zymotic mortality of the 28 great towns was exactly the same as that of London, but their average general death-rate was 1·3 above that of the metropolis. Glasgow had a higher zymotic death-rate than any of the large English towns, except Cardiff, where measles is raging.

The increased prevalence of small-pox in London and elsewhere during the summer months has aroused the vigilance of our transatlantic cousins against a possible invasion of epidemic variola; and it has brought to light the existence of some exceedingly useful regulations which are intended to provide against the spread of the disease through the medium of schools. During a previous epidemic, the Illinois State Board of Health, issued a School Vaccination Order, which was then acted upon with the most satisfactory results. At the time when it first came into effect, Jan. 1, 1882, nearly sixty-nine per cent., or over 490,000, of the school children in Illinois, were either entirely unprotected against small-pox, or had again become susceptible through failure to re-vaccinate at the proper time. Within sixty days, that is by March 1, there remained less than 6 per cent. of unprotected and susceptible amongst those in attendance; and the frequency of small-pox and varioloid among public school children had been reduced by more than a third, while the rate of mortality amongst the children attacked had fallen from 16·5 to 3·3 per cent. During the four years 1880–83, the small-pox returns for the whole State showed that the deaths among un-vaccinated school children were at the rate of 48 in every 1,000 attacked; amongst the vaccinated school children the death-rate was only ·9 per cent. of those attacked. These figures certainly present a strong argument for the "necessity of a thorough enforcement of proper and successful vaccination as a pre-requisite to admission to the public-school room."

It is pointed out that this School Vaccination Order is permanent and continuous. Not only so, but the Attorney General has decided that it is the duty as well as the right of the State Board of Health to issue such orders for the preservation of public health; that these rules and regulations, when promulgated, have the force and authority of law; that the local authorities may exclude from school those children whose parents refuse to comply with such requirements; that if any School Board or managers refuse or neglect to carry out such orders, they may be proceeded against for neglect of duty; and should any such Board be prosecuted for enforcing the provisions of the order, they may defray the expenses of counsel, &c., for defending them out of any school funds of their district not otherwise specifically appropriated. Allow as much as we may for the abstract theories of the matter, the "liberty of the subject" always reaches its vanishing point when its further exercise would infringe the requirements of public health. A great step such as this in the direction of practical school hygiene might be adopted by us with national advantage.

Nothing can be more gratifying to the professional mind than to find the Science of Medicine received with open arms and unquestioning faith by the lay public. The German Government, above all others, should command our admiration in this respect. Attention has of late been prominently called to the exemplary manner in which, anticipating Dr. Klein, they have figuratively "swallowed" Professor Koch's bacillus. In a no less thorough and impetuous fashion did they receive the more important teachings of Sir Joseph Lister in respect of the antiseptic treatment of wounds, but their faith in this particular has lately led to a judicial decision of somewhat more than ordinary importance. Early in the present year a man was stabbed in the chest with a knife, and the wound thus inflicted was treated by a fully qualified surgeon, who did not employ any antiseptic precautions. Blood-poisoning ensued in course of time, and the patient died. The surgeon has recently been put upon his trial for mala praxis and has been convicted on the ground that he had not observed the well-recognised rules prescribed by modern medical science for the treatment of such cases, and that he must have known by ordinary observation that his own treatment would be followed by death! On an appeal to a superior court this remarkable judgment was confirmed and, although a further hearing has yet to take place before a third tribunal, the whole transaction suggests unpleasant thoughts of what might possibly arise in our own country if this example of the Teutonic method were to find followers on the English Bench.

The *Allgemeine Medicinische Central-Zeitung* reports the case of a Berlin doctor who was recently summoned to a police court for having practised deception. A person residing at Rostock having written to him asking him whether he could undertake the treatment of varices from which he suffered, received a reply that he could cure these completely and rapidly. After fifteen marks in advance had been forwarded, the treatment was commenced, but as this was attended with no success, the patient summoned the doctor for having practised a fraud upon him. The defendant maintained that no fraud existed, as the medicine sent was only preparatory, and the patient had received full instructions as to the course he was to pursue. The court, however, ruled the deception as proved, as the defendant must have known that he was making false representations when he stated that the varices would be completely and rapidly cured; and he was fined a hundred marks or ten days imprisonment. The two experts who were called, Professor Liman and Dr. Israel, both agreed

that "treatment at a distance" was always most objectionable, but added that the accused might not necessarily have been guilty of wilful deception, for as the intellectual condition of practitioners is so various, it is possible he might have believed in the efficacy of his remedies, which, however, they themselves regarded as of only temporary utility. To our mind, the decision of the magistrate seems in this case to have been far more praiseworthy than the shuffling of the experts.

Mr. Armstrong's report for the year 1883 on the city and county of Newcastle-upon-Tyne, shows a general death-rate in Newcastle itself of 25·4 per 1,000, considerably above that of any of its seven immediate predecessors, and nearly 4 per 1,000 higher than the average of the 28 large towns, according to the Registrar General's Report. The actual number of deaths was 3,792, whilst there were 5,482 births. Amongst the infectious diseases the mortality from measles was excessively heavy, no fewer than 209 deaths being attributed to this affection ; of these 30 were in infants under one year, exactly ten times as many as occurred from it at this age in 1882. There would appear to have been an extensive epidemic of scarlet fever during the year, as 1,152 cases were notified with a mortality of 10·8 per cent. There were 493 cases of small-pox with a death-rate of 12·2 per cent., 216 cases of enteric fever with a death-rate of 20·0 per cent., and 90 cases of typhus with a death-rate of 24·8 per cent. The compulsory notification of infectious diseases has been in force during the year, and Mr. Armstrong says that thus far it has worked smoothly and given satisfaction to all parties. The urgent need for better accommodation for infectious cases will be obvious when we state that only 13 cases of scarlet fever seem to have been admitted into the Fever Hospital during the year. Maps of the town are appended showing the distribution of cases of scarlet fever, small-pox, enteric fever and typhus, the fatal being distinguished from the non-fatal cases.

A large and annually increasing number of American medical men are in the habit of leaving their own country for the purpose of studying at some of the more famous European schools. The Students' Number of the *New York Medical Journal* contains, under the head of "Medical Study in Great Britain, France, and Germany," a very full account of the methods in vogue at the different centres of medical education, with particulars as to the courses given by the various professors, the scale of fees, the cost of living, and much useful advice as to the method by which the student may utilise the time at his disposal to the best advantage. As an outline programme for the student about to leave the States, but uncertain where to go first, the following plan is recommended: "Make a short stay in London to see the best men, and obtain an idea of English methods. If, by contrast later with German men and methods, they appear preferable, the student can return to England ; if not, he will have a longer time for work on the Continent. Go next to Germany, and select one of the smaller university towns for the first three months' work. Here, whatever time is not occupied in acquiring the language can be spent in the study of pathology in a laboratory whose director will be able to give his instruction to the beginner in his own language. Strasburg, Heidelberg, or Leipsic may be chosen for this purpose. As soon as the first semester is over, go to Vienna for obstetric work during the vacation, and while there obtain whatever information is desired regarding the special study which is to be pursued. Both the specialist and the general student will find one semester in Vienna indispensable, and will probably desire to take a second one. The second vacation may be passed at Berlin, Leipsic, or Munich, where special courses are to be obtained between the semesters. From Germany go to Paris, so arranging one's plans as to spend the months of April to July in that city. If French is not understood it can be learned in Germany during the preceding winter, or a competent teacher can be obtained in Paris at the International Society of Teachers in the Rue Royale. If one's time is very limited, spend it all in Vienna. If it is unlimited, visit as many Universities as possible, but do not spend less than an entire semester in each, for little good will be obtained from hearing but half-a-dozen lectures from any one man. Above all, remember that it is less the actual knowledge obtained than the new methods of acquiring knowledge which are to be prized and utilised. If the student returns imbued with the French enthusiasm combined with the German thoroughness, his medical trip will be a permanent source of congratulation."

There is to be held in London, in 1886, an American Exhibition of the Arts, Inventions, Manufactures, Products, and Resources of the United States of America. An immense Council of Welcome has been formed, comprising all the celebrities of the day ; a list of which has been published with an epitome of the achievements of each ; as for instance :—

GEO. BUCHANAN, Esq., M.D., F.R.S., London, Poet, Author and Dramatist ; Author of "Undertones," "North Coast Poems," "The Land of Lorne," also of "A Madcap Prince," "A Nine Days' Queen," "The Shadow of the Sword," "Lady Clare," etc. ; Member of the Executive Council of the International Health Exhibition, London, 1884.

THE BOWMAN LECTURE.

The series of Bowman Lectures instituted by the Ophthalmological Society of the United Kingdom was most happily inaugurated last week by Mr. Jonathan Hutchinson, whose lecture we publish to-day. After a short and graceful introduction, the lecturer points out that the subject chosen, Diseases of the Eye in relation to Gout, is an especially important one to us, from the frequency of the gout taint in the British population. He insists upon the existence of a clear distinction between gout and rheumatism, while admitting the difficulty, and even in some cases the impossibility, of actually drawing this distinction in practice. By *gout* he means "all states of health which are, whether directly or remotely, connected with the accumulation of lithate of soda in the

blood, as the result of overfeeding or defective assimilation." From the primitive idea of *rheumatism*, he would exclude as causes all that have reference to food or assimilation," and would "count only those which regard climate and weather, and especially exposure to cold and damp." Now, the primitive type of each of these diseases becomes much modified by inheritance, *e.g.*, a form of transmitted gout may exist, "not associated in the patient with either lithiasis or lithæmia." Again, the primitive type of the one disease may be associated with an inherited form of the same disease or of the other; while an inherited form of both may co-exist in the same individual. The intricacy of the investigation is therefore manifest and becomes almost hopelessly so when we are told that "strictly rheumatic disorders, acute rheumatism itself, if it happens in the relatives of those who have had gout, lends support to the theory of family tendency to gout. It is an observation . . . confirmed I am sure by daily experience, that the children of the gouty are more liable than others to attacks of rheumatic fever." It will be sufficient, for the present, to look upon the hereditary diathesis of both diseases as manifesting *arthritic susceptibility*, and to bear in mind the terse, pithy definition of each given in the lecture, viz, "arthritic susceptibility to food," and "arthritic susceptibility to weather." Attention is drawn to the modification of tissues liable to be produced in the subject of acquired gout, and to the proneness of those tissues "to suffer in a peculiar manner when exposed to the ordinary exciting causes of disease." The offspring of such a person inherits his tissues, and his tendencies as regards digestion, &c., and therefore has an increased proclivity to typical gout if exposed to its usual causes. But besides this, he inherits, independently of exciting causes, a liability to "forms of inflammation or of degraded nutrition, which are not unequivocal gout, but which are yet the direct consequence of it in predecessors." We are thus logically introduced to the class of diseases forming the subject of the lecture.

"Hot Eye" is the term applied by Mr. Hutchinson to a condition associated with quiet, or as it is commonly called "suppressed" gout. This affection is characterised by repeated short attacks of conjunctival congestion, and a feeling of heat and pricking in the eyeball, and is liable to occur after taking injudicious diet. In connection with this affection, our attention is also directed to the occasional occurrence of sharp shooting pain in the eyeballs in persons suffering from unequivocal gout. The lecturer has done good service by drawing attention to the true nature of such cases, and to the definite course of treatment indicated. He next makes a most important note in reference to a form of asthenopia, occurring in young persons in association with inherited gout. Most ophthalmic surgeons are, we think, too apt to order glasses in slight degrees of ametropia with asthenopia, without considering the other possible causes of the symptoms complained of.

Nearly all cases of "arthritic iritis" are believed by Mr. Hutchinson to be really due to gout, either alone or in association with rheumatism. "It is, I think, decidedly exceptional" he says "for rheumatism pure and uncomplicated to show any tendency to attack the tissues of the eye." He points out, in support of this view, that iritis in conjunction with rheumatic fever of the ordinary type is almost unknown. He considers consecutively the different types of arthritic iritis, and enquires into the evidence we possess connecting each with the tendency to gout. First he takes the ordinary recurrent form, frequently called "rheumatic iritis," which occurs in acute transitory paroxysms of well known type. He finds that a considerable number of such cases occur in the subjects of true gout, but that in a much larger number of cases the concomitant symptoms are those of rheumatic arthritis and not of true gout. He argues that this form of rheumatic gout is "in reality a hybrid disease, possessing, in addition to an unquestionable share of rheumatism, an admixture also of gout tendency." This view is supported by its infrequency in women, and by the age, habit of body and mode of life of those usually its subjects. Secondly, he mentions the iritis occurring in connection with gonorrhœal rheumatism, and points out that, while iritis in association with acute or chronic rheumatism is very rare, it often accompanies the rheumatic affections induced by gonorrhœa. This peculiarity he explains by showing that gonorrhœal rheumatism occurs usually in the subjects of inherited gout. He describes two other distinct forms of arthritic iritis less frequently met with and both often associated with a history of inherited gout. He thus brings forward weighty evidence in favour of the general association of arthritic iritis with gout rather than with rheumatism, and his observation that gonorrhœal rheumatism nearly always occurs in those who inherit a gouty constitution is one of great value. He next introduces a strong array of cases to prove the existence of a peculiar form of destructive iritis always associated with the inheritance of a gouty constitution. That such a true "gouty iritis" undoubtedly occurs has now been taught for several years by Mr. Hutchinson, and his views have been extensively adopted in this country. In favour of *Relapsing Cyclitis* being of gouty origin, facts are still wanting. He merely suggests "that it is very probable that in some cases the constitutional cause . . . may be gout." The case here is evidently weak.

The next enquiry is, "does gout cause neuritis?" Such a question has manifestly most important bearings, not upon diseases of the eye alone, but upon pathology in general. Unfortunately here again little evidence can be produced in argument, but we trust that further attention may be directed to this matter under the stimulus of the cases now described. That gouty sciatica may be produced by an inflammation of the nerve or its sheath is at least plausible; and, if so, it is also possible that some forms of optic neuritis may really be due to gouty inflammation.

In reference to *Retinitis Hæmorrhagica*, Mr. Hutchinson expresses the belief that it is "very rarely seen excepting in those who are themselves gouty." This is, in our opinion, much too sweeping an assertion, yet we feel considerable diffidence in thus casting doubt upon it after the lecturer's vindication of the wide-spread nature of the gouty malady and of the multifarious aspects under which it may be encountered.

In recapitulation, Mr. Hutchinson shows how the

different gouty eye affections may be divided into two groups, according as they are associated with (1) acquired, or (2) inherited gout. In the former group the attacks are generally acute, transitory, and painful, and the patients are adults; here he places hot eye, sclerotitis, recurrent iritis, and retinitis hæmorrhagica. In the second group the attacks are prone to be chronic and persistent, often insidious, and usually destructive; here we find the true gouty iritis, relapsing cyclitis, and certain forms of soft cataract. Indications as to treatment are afforded by the nature of the gout in the two groups. Altogether, this, the first Bowman Lecture, is a brilliant example of Mr. Hutchinson's masterly power of generalisation from carefully recorded observations made on a large number of cases. Even where it may not be convincing his argument is always fruitful in fresh ideas, and deserves our careful consideration and with it our gratitude.

CLINICAL PAPERS.

XVI.—Tracheotomy in Diphtheria.

Tracheotomy is the one operation of vital importance which any practitioner may find himself called upon to perform, and when we reflect how very few students on commencing practice have had the opportunity of doing it or even of seeing it done, it is easy to understand why the majority regard it with such dread. And yet there is really, in most instances, but little difficulty in the operation, and with proper assistance such difficulties as there are entirely vanish, provided always that the case is not of such urgency as to demand a swift and masterly operation. The difficulty is often inherent rather in the diagnosis than in the treatment. In cases where membrane is or has been present on the fauces, or where there is presumptive evidence of infection from clear instances of diphtheria having occurred in the same house, the diagnosis will be open to little doubt. In other cases where no evidence of this nature is obtainable, the mode of onset of the attack must be carefully enquired into, and the liability of the patient to previous attacks of hoarseness duly taken into consideration. Too much weight, however, should not be attached to a history of frequent attacks of croup, for we all know that those who are subject to tonsillitis are at least as liable as others, if not more so, to contract pharyngeal diphtheria, and the same argument may be applied without much forcing to the case of the larynx. The present writer remembers a case in which a child was admitted into hospital for croup, the parent stating that he had had many similar attacks. On the strength of this history, tracheotomy was deferred until too late to save life, while ample evidence of the presence of diphtheria was ultimately obtained. The presence of albuminuria in a given case affords valuable evidence in support of the theory of diphtheria, but its absence must not be allowed much weight in the contrary sense.

As regards the indications for the operation in the absence of clear evidence of diphtheria, the most reliable sign is the character of the breathing, together with the colour of the patient. So long as there is no recession of any part of the chest wall or of the suprasternal or supraclavicular region during inspiration, we need not feel much alarm; it is this sign which gives the best information as to the amount of laryngeal or tracheal obstruction. Auscultation of the lungs will probably reveal at this stage an impeded entry of air with perhaps a dry stridulous kind of râle. The presence of abundant moist râles, more or less fine, would indicate that another factor was entering into the causation of the dyspnœa in the shape of blocking of the small tubes probably with that semifluid mucus which often seems to precede the formation of membrane, and the presence of which renders any operative interference futile. If, in spite of treatment by means of inhalation of steam or medicated vapour, a supporting diet, and appropriate internal remedies, the dyspnœa, increases, and the lips and face become gradually more livid, nothing will be gained by delaying the operation. We are alluding more especially to the case of children in whom it is decidedly exceptional for membranous casts of the trachea or bronchi to be coughed up. Chloroform should, as a rule, be administered, unless the asphyxia has already reached the stage of unconsciousness. A very small quantity usually suffices, and its administration requires more than ordinary care, but it enables the operator to proceed with much more deliberation, a point of no small importance.

A good light is essential to success, and if the operator has any doubt as to whether there is sufficient light he will do well to provide himself with artificial illumination before commencing the operation, as afterwards there will be no time to wait whilst it is being obtained. The shoulders and neck should be supported by a little pillow, so as to throw the head back and put the neck on the stretch, and great care should be taken that the shoulders are square in order that the operator may have no difficulty in finding the middle line of the body. The incision should commence just below the lower margin of the thyroid cartilage, and be continued downwards for over an inch; it is better to have too large an incision than too small a one. After dividing the skin, each side should be kept back by an assistant holding a retractor in each hand, and taking care to maintain an equal tension on each. The less the knife is used in the subsequent steps until the trachea is reached the better, though, of course, if the patient should have stopped breathing no time must be lost in dissecting down to the trachea, which must be boldly opened at once. The safer plan for the operator, if time permits, is to push aside with two pairs of forceps the various structures that he meets with, or to tear them through with his forceps, or if any fibrous layer should prove too tough, it may be divided with a scalpel on a director. The isthmus of the thyroid should be pushed down, or if absolutely necessary the operator may cut through it, but it is far better to avoid doing so if possible. Meanwhile, the assistant with the retractors should successively grasp and hold aside the tissues beyond which the operator has passed, his great object being to keep an equal traction on the two sides;

otherwise he would encourage the operator to dissect to the side of the middle line, and so the trachea might never be reached at all. In many of those unfortunate cases that will happen to young surgeons who perform tracheotomy without bringing any relief to the patient, and learn next day in the *post-mortem* room that the trachea has never been opened, the blame belongs really to the assistant.

As soon as a sufficient length of the trachea has been laid bare (the first two rings or so) an incision should be made through these from below upwards in the middle line and a pair of Trousseau's dilators inserted without loss of time. The violent coughing which immediately follows the opening of the trachea is one of the most pleasant sounds an operator can wish to hear. He should be at once on the alert to remove any pieces of membrane which may be coughed up into the orifice in the trachea in order to prevent their being sucked back at the next inspiration. Hitherto the operator has been, in spite of himself, perhaps, in more or less of a hurry; it is of great importance, if ultimate success is to be obtained, that he should not hurry over the remaining steps. Keeping the trachea well open with the dilators he should pass feathers moistened either in warm water or in some weak alkaline or antiseptic solution, according to his prejudices, down the trachea and into the bronchi and by twisting them round before withdrawing them, endeavour to remove any membrane that may happen to be lodged there. He should then do the same to the larynx, passing the feather upwards from the wound. If necessary, he might also pass a soft flexible tube, or some apparatus of like nature, and attempt by aspiration to remove any membrane that may be blocking the air passages. When he is satisfied that he cannot remove more membrane by any of these methods, the ordinary silver tracheotomy tube, of the largest calibre that the child's trachea will admit, should be inserted and the patient put back to bed again. The accident of which one so often reads of the tube getting blocked with membrane directly it is put in and obstructing the breathing is one that never ought to happen; it shows that the operator has not thoroughly finished his operation. With the return of the patient to bed the operation may be considered to be over and the after treatment then begins, a subject our space does not permit us to deal with at present. Φ

REVIEWS AND NOTICES OF BOOKS.

Brain: A Journal of Neurology; London: Macmillan & Co., October, 1884.—The current number of *Brain* is worthy of the good reputation that this periodical has so thoroughly established. The first article is by Professor Obersteiner, of Vienna, and deals with the "Cerebral Blood-Vessels in Health and Disease." Especial attention is called to certain histological changes that occur in the vessels of brains which are in all other respects healthy, and are not connected with any disturbance of function; such as calcareous deposit, fatty degeneration of the muscular coat, connective tissue degeneration, and dilatation of the adventitial lymph-sheath. Professor Pitres, of Bordeaux, contributes a paper on the "Early Occurrence of Ankle-Clonus in Hemiplegia," in which he points out that this phenomenon takes place probably much earlier in many cases than is usually believed, and quotes a few instances in which it was noticed eleven and fifteen hours respectively after the occurrence of the apoplectic seizure. He states his opinion from his own experience that the cases which show this phenomenon early remain permanently and more or less completely hemiplegic, with late rigidity of the affected leg; so that he considers the elicitation of ankle-clonus during the first few hours or days of the attack to be an almost certain sign of an incurable paralysis. If this view be correct, and it seems *à priori* probable from the little we know about the import of ankle-clonus, we have doubtless a very definite and useful additional aid to prognosis in these practically important cases. More observation, perhaps, is wanted as to the non-occurrence of ankle-clonus in cases which recover before Professor Pitres' dictum is accepted as absolutely as he makes it, but it seems likely that in cases where the lesion in the motor tract is sufficiently grave to affect the control of the so-called reflexes perfect recovery would not ensue. This paper is valuable too as emphasizing the point that ankle-clonus is only in certain cases due to lateral spinal sclerosis, it being probably quite as often caused by cerebral as by spinal conditions. It is clear that in the cases of Pitres, lateral sclerosis is out of the question. In an interesting paper on Cases of Tumour of the Corpus Callosum, written with his usual clearness and accuracy, Dr. Bristowe points out that growths in the median portion of the structure do not give rise to characteristic symptoms, but that the symptoms which are presented in these cases are due to an extension of disease to the hemispheres. From these negative and positive grounds it is possible to make a diagnosis, the progress of such a case being probably first headache and vague symptoms of progressive cerebral disease; second, the gradual onset of more or less marked hemiplegia; third, the appearance of some such similar symptoms on the opposite side of the body, and, fourth, the coming on of dementia, with drowsiness, loss of speech, difficulty in swallowing, and want of control over rectum and bladder. Dr. Bristowe thinks that, though attention has not been specially directed to such cases as these, they are examples of a class which are not unlikely to be met with in practice. Dr. Radcliffe Crocker's paper on Lesions of the Nervous System Ætiologically Related to Cutaneous Disease consists of a *résumé* of the main facts and views in relation to this interesting subject, with which the name of Weir Mitchell will always be connected. Although there is nothing very new in this paper, it is valuable for its conciseness, and will be useful for reference. The series of original articles closes with one by Dr. Charles Mercier, who by his writings in various periodicals is rapidly making good a claim to be considered one of the ablest and clearest of our neurological thinkers. A devoted though independent professor of the creed of Mr. Herbert Spencer, as edited by Dr. Hughlings Jackson, Dr. Mercier in the present paper acts most usefully to the medical profession as an interpreter of his predecessors in this line of thought. We have nowhere seen such a clear and aptly-illustrated account of what is meant by the term "Nervous Discharge" as we find here set forth. It must be read *in extenso*; we will not attempt to give it in abstract. The subject is one of obvious difficulty, and the terminology by means of which it is expounded is of necessity somewhat metaphorical; but Dr. Mercier has succeeded in making a maximum use of "terms of the known" in his explanation with a little, and that a decidedly brilliant use of the scientific imagination. Much, however, as we welcome this paper, which will doubtless be most valuable in clearing up the minds of many thinkers on the subject, we can scarcely agree to Dr. Mercier's "Experienced Alienist" (see the first page of his essay), who rejected the existence of a nervous discharge, because he thought it was of the nature of a discharge of pus, being adduced in evidence of any necessity of enlightening such a mind as his. Probably the most superficial student has always in view the analogy of the *electrical* discharge on hearing this term, and this alone would be ample justification for Dr. Mercier's most lucid exposition of the *real* nature (if we may be excused the paralogism) of the supposed nervous discharge. But the alienist

who confused himself about the word was probably suffering more from alienism than ignorance, and, like many of his patients, was beginning to be caught by the analogies of "empty words." For him we would counsel a short detention, and we sincerely hope that Dr. Mercier's compassion for his aberrant friend will never induce him to lower his standard or style of writing which is so admirably suited to his legitimate purpose of expounding and contributing to philosophic neurology.

Surgical Handicraft; by Walter Pye. H. Kimpton, 1884. — This might be expected to be a work on manipulative surgery pure and simple, but it is intended to be something more, for it is a manual also for "other matters connected with the work of house surgeons and dressers." The meaning of this is not quite clear. We have looked for any account of house surgeon's duties, responsibilities or privileges, but there is nothing that we can find in the work that answers to this. Similarly, as to dressers, we find no instructions as to duties, what to observe or how to observe it, none as to the instruments he should possess, none as to case taking or the performance of *post-mortem* examinations. Then if the manual should be intended for students beginning the practical work of surgery, we have looked in vain for how to make the simplest of common applications, a poultice, or how to apply it. The preface leaves one as vague as the title page on the object of the book. It states that the author's endeavour has been "to describe the details of surgical work as it appears from the point of view of house surgeons and dressers in surgical work." We have been thus critical because of our inability to see the author's aim, and we have examined the book with care as coming from a surgeon of recognised ability. The subject matter is good, and if we can divest ourselves of the idea of its being a manual of elementary practical work for dressers, or other than a handbook of minor surgery, bandaging and splints, with special chapters on surgical emergencies, practical surgery and anæsthetics, we shall find in it much to speak highly of. But even as such we should have been glad to see a helping description of how to tie a ligature properly, how to take off ordinary strapping best, how best to remove a plaster of Paris or similar splint. These are omissions which no doubt will be rectified in future editions, for a student should not require an infinity of instruction books, and these points may fairly be looked for in a work on surgical handicraft. But in the chapters which treat of minor surgery, practical surgery such as fractures, wounds, &c., and especially in that which treats of joint diseases, the information given is of great value to student and practitioner alike. The illustrations to the text are very abundant and useful, and in the treatment of fracture or disease by means of splints, illustrations of splints properly applied are of great use to the student and save lengthy description. One section on surgical emergencies is of great practical value to advanced students and practitioners, for it contains short chapters on retention and extravasation, hernia and intestinal obstruction, fits, drowning and other forms of suffocation, and on poisons. And a chapter on anæsthetics by Mr. Mills is good and likely to be referred to by the reader for practical information. There is a useful chapter on the extraction of the teeth by Mr. Hayward and another on some points in the practical management of aural cases by Mr. Field. The book has convenient marginal references and is well printed.

ABSTRACTS AND EXTRACTS.

SURGERY.

The Micrococcus of Gonorrhœa.—Dr. Sternberg contributes a paper on the ætiological significance of the micrococcus which is so frequently found in gonorrhœal pus. He concludes that the organism *is* connected with the infective virulence of this discharge; but this "gonococcus" does not present any distinctive morphological character as claimed by Neisser and some other observers, according to Sternberg. "Pure cultures" of this organism, carried to the *fourth* generation, have shown its infective qualities; but Sternberg thinks that to absolutely ensure all exclusion of the original material, or of micrococci still infected with it, cultivations should be carried further. He discusses their varying characters under cultivation, and does not attach much importance to them. His observations lead him "to think that they are subject to the modifying influence of changes in their environment as well as the higher plants"; and he does not the less regard them as the essential feature of these discharges because similar organisms are found in other kinds of discharges.—*The Philadelphia Medical News*, October, 1884.

Subcutaneous Ligature of the Brachial Artery, followed by Primary Union.—Dr. Canizzaro relates, in *Lo Sperimentale*, for June, the following case: Messina, 22 years of age, during a struggle, 10th April, 1882, received a wound from a dagger on the anterior surface of the right forearm, three fingers' breadth below the bend of the elbow, the weapon issuing at the posterior part of the arm, having wounded the ulnar and interosseous arteries. Violent hæmorrhage ensued, which was arrested by compression applied by means of snow. The bleeding repeatedly recurred at intervals notwithstanding the compression and digital compression of the brachial; and after a vain attempt at tying the divided ends of the vessels it was resolved, several days after the accident, to tie the brachial. Esmarch's bandage was applied and the skin of the arm forcibly drawn externally, so that the incision into it should not correspond with the spot where the brachial was tied. The ligature of the artery was easily effected. Union readily took place, and by the fourteenth day the pulse could be distinctly felt in the radial artery. The original wound took some time to heal, but six months afterwards all effects of the accident had disappeared.

A Second Attack of Syphilis.—In the *Philadelphia Medical Times* for August, Dr. Engel records a case in which a man had two attacks of syphilis. He was first called to the patient for an epileptic seizure. When the patient had recovered from this, Dr. Engel learnt that eight months before he had had a chancre, for which he had been treated by a homœopath who had pronounced him cured when there was still a bubo left. A few months later he had sore throat, followed by an eczematous coppery eruption of which he still bore traces. He was at once put upon the line of treatment to be subsequently described. For five years he continued under treatment. Seven years after the epileptiform seizure he came back to Dr. Engel with a Hunterian chancre. This healed in three weeks, and he was then lost sight of for three months when an eczematous eruption similar to that he had had before made its appearance. At the same time, he began to suffer from pain beneath the sternum, and when seen, eleven days after the onset of these symptoms, he was very ill, and the physical signs led Dr. Engel to diagnose inflammation of the aorta. He was at once put upon the treatment by mercurial inunction and rapidly began to improve. Dr. Engel then proceeds to discuss the diagnosis, and he points out that this could not be considered a relapse of the previous manifestations, because he had a typical chancre after the second infection. Again, the time which elapsed between the first manifestations and these later ones was much greater than is ever seen. Other points which he mentions are that when once the internal viscera have been attacked by syphilis the skin eruptions cease to appear, excepting gummata and rupia. Another point too he notes is, that syphilitic patients hardly ever get the same form of skin eruption twice. On the second occasion the patient had a perfectly typical chancre, nor were the secondary symptoms in any way modified by his former attack. From this Dr. Engel concludes that the cure of his syphilis must have been quite complete in the first instance seeing that the second attack was in no degree milder than in an ordinary attack. The treatment is by mercury in the first instance, the patient beginning with a grain of calomel daily; at the

end of three days this is increased by one third of a grain a day, and in three days more a like amount is added, and so on till the patient is taking three grains daily. If the inunction treatment is adopted, a drachm of the mercurial ointment is daily rubbed into some part of the body, the patient not being allowed to change his underclothing more than once a week. This plan is continued until salivation has set in and is not then stopped until the gums commence to ulcerate. When the effects of the salivation have passed off, a mixture of bark and iron is administered, under which the patient rapidly regains the flesh he had lost under the mercury. At the end of a week iodide of potassium is given in increasing doses, from five grains daily up to sixty grains a day. If any manifestation of syphilis reappears at this time, this dose is still further increased until no sign of syphilis is present. The maximum dose is then continued for a week longer, and it is then gradually diminished. Change of air at this time is generally recommended, and after two or three weeks the patient is ordered a hot bath every other day and takes a decoction similar to Zitmann's decoction. If any sign of syphilis should still be present, the patient goes through the whole course from the commencement again. If the patient is quite free from syphilitic manifestations, he takes for four weeks one-fourth of a grain of yellow iodide of mercury; then for four weeks one-sixteenth of a grain of corrosive sublimate; then for four weeks the same dose of binoxide of mercury; then for four weeks iodide of potassium as before; then the same round again until seventeen months are past, during the last two of which he also takes some bark and iron. For the next eighteen months, every three months the patient passes through a three weeks' course of iodide of potassium; beginning at five grains a day, and altering the dose every four days up to twenty grains and down again. At the end of this period he is recommended to take a short course of iodide of potassium twice a year for the rest of his life.

Conical Stumps.—During a discussion on this subject at the Société de Chirurgie (*Union Méd.*), Professor Verneuil observed that conicity of the stump has no dependence upon the mode in which union has been effected. He is not in the habit of healing his stumps by first intention, and he in general obtains most excellent stumps, while in the exceptional instances in which he has obtained union by first intention he has had conical stumps. This accident in fact occurs only in cachectic individuals in whom the stump has become atrophied, or in those in whom it has become inflamed. Conicity is not met without such inflammation, or unless the patient is suffering from a bad general condition, which, by impairing nutrition, produces atrophy of the soft parts of the stump. "Everything which favours *antiphlogistie*, to use a neologism, is a means of preventing conicity of the stump."

Injections of Ether and Iodoform In Cold Abscess.—Professor Verneuil obtains a rapid cure in almost all his cases of cold abscess, abscess from diseased bone, or from congestion, &c., by ethereal injections of iodoform of the strength of one in twenty. The abscess is first emptied by means of Potain's aspirator, and then receives from 100 to 300 grammes of the iodoform solution. By not exceeding this quantity (*i.e.*, five to fifteen grammes of iodoform) no fear of accidents need be felt. The liquid penetrates into all the anfractuosities and diverticula of the abscess, the ether becoming absorbed or evaporated, and the antiseptic agent being deposited uniformly on the pyogenic membrane, the action of which it modifies. This simple means, so exempt from danger and so easy of application, has proved highly successful, very large abscesses having yielded to three or four injections.—*Revue de Thérapeutique*, August 15.

New Method of Treating Large Bone-cavities.—Dr. F. Lange (*New York Medical Journal*) has applied Neuber's system of deep canalization to the treatment of large cavities in the lower end of the femur in adults. An anterior flap is formed from the soft parts covering the front of the lower end of the femur: the whole of the anterior wall of the cavity is removed, and the abruptness of its lower edge is removed by an oblique section, which substitutes for it a smooth inclined plane. The whole bone-cavity is thoroughly scraped out and disinfected: for this purpose the application of a strong carbolic spray is recommended as being specially efficient. Then the dorsal flap, whose length must correspond to the extent of the cavity, is depressed towards the bottom of the cavity, and fastened there by a nail or needle. No sutures are applied. The raw surfaces above the edges of the flaps heal by granulation: and the flap itself becomes gradually raised to the level of the rest of the wound, by a new formation of apparently bony tissue beneath it. Cases in which this procedure was successfully adopted are given in detail.

Carbolic Acid Injections in Hæmorrhoids.—Dr. Washburn, commenting on the statement of Dr. Matthews, of Louisville, that this is a dangerous practice, observes that it is so only when the proportion of acid used is too large. He has employed it in numerous cases without any ill results having been produced. If the pile is external he always returns it, even if an anæsthetic has to be resorted to for this purpose, before examining it by a bivalve speculum, and especially before treating it. If he wishes to slough out a tumour, he uses but one part of acid to two of sperm oil, but if he wishes to secure absorption only, he employs one to four. If the patient is very sensitive to pain, only from five to fifteen drops of the solution should be injected, and this may have to be repeated two or three times before complete removal of the tumour. To prepare the injection, the acid is dissolved by heat and measured with the oil into a phial, which is then placed in a water-bath. The water is brought to about boiling point, after which the acid and oil will not separate. Before operating the bowels should be thoroughly moved and washed out, so as not to want moving again for 24 hours, and if the patient is very susceptible, a dose of morphia may be given to keep him quiet and allay pain. The needle should be inserted so as to deposit the fluid in as nearly the centre of the tumour as possible. In some cases inflammation will follow, but generally the patient can at once go about his affairs. Only one tumour, especially if large, should be treated at a time, the remainder being operated upon at intervals of two weeks.—*Philadelphia Medical Reporter*, August 16.

Treatment of Carbuncle by Compression.—In a clinical lecture on carbuncle, delivered at the Hospital of the University of Pennsylvania (*Philadelphia Medical Times*), Prof. Ashhurst observed that some peculiarities which occur in the ulceration of a carbuncle have not been understood until lately. The ulceration causes a sieve-like appearance of the surface, owing to its being set up at several distinct points. Why it should thus manifest itself has been recently shown by Dr. Collins Warren, of Boston, in his examination of the skin at the back of the neck, where he found little processes or tubes of fat connecting the deeper tissues with the surface, and which he calls *columnæ adiposæ*. It is along these columns that the pus of the carbuncle, which originates as a phlegmon of the deep cellular tissue, begins to make its way to the surface. The slough, commonly called the core, which is the result of sloughing of the deep cellular tissue, protrudes through these openings. Prof. Ashhurst states, that in regard to the treatment, he now always resorts to a modification of compression by adhesive plaster, as first recommended by Mr. O'Ferrall, of Dublin, finding it a much more simple, and far less painful and dangerous procedure than crucial incision or cauterization. On suppuration occurring, Mr. O'Ferrall cut a hole in the plaster for the discharge of the pus, but Prof. Ashhurst prefers adhesive strips applied concentrically, as in the treatment of swelled testicle. They are first applied at the margin and gradually brought more and more inwards, leaving a space in the centre to allow the slough to come out. From the time of application the spreading of the carbuncle is arrested, and the pain is greatly relieved. The carbuncle rapidly diminishes in size, and over its centre a small poultice is applied, which after a while is changed for resin or zinc ointment.

Suture of Nerves.—M. Chaput, from an elaborate research into the particulars of the cases hitherto published, arrives at the following conclusions:—(1) Suture of nerves is an absolutely harmless operation; (2) It may be

followed by immediate reunion and with a return of almost all the functions of the nerves; (3) Suture has been successful at least in a proportion of 66 per cent.; (4) Primary and secondary suture have furnished nearly similar results, but somewhat to the advantage of the latter.—*Archives Générales*, September.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 14TH, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

Chronic Dysentery treated by Voluminous Enemata of Nitrate of Silver.

DR. STEPHEN MACKENZIE read a paper on this subject of which the following is an abstract. The author alluded to a former series of cases he had brought before another Society, and stated that extended experience had strengthened his belief in the value of large enemata of nitrate of silver in the treatment of cases of chronic dysentery or dysenteric diarrhœa. The mode of procedure he adopted was as follows:—The quantity of nitrate of silver to be used was dissolved in three pints of tepid water in a Leiter's irrigating funnel, which was connected by india-rubber tubing with an œsophageal tube with lateral openings. The patient was brought to the edge of the bed and made to lie on his left side, with his hips well raised by a hard pillow. The terminal tube, well oiled, was passed about eight or ten inches into the rectum, and the fluid allowed to force its way into the bowel by gravitation. The injection rarely caused much pain, and often none. It usually promptly returned, but when long retained it was advisable to inject chloride of sodium, to prevent absorption of the silver salt. Various strengths had been used, from thirty to ninety grains to three pints of water, but usually one drachm of nitrate of silver was employed. The treatment was based on the view that, whatever the nature of dysentery, whether constitutional or local, in the first instance, the later effects were due to inflammation or ulceration of the colon, which was most effectually treated, as similar conditions elsewhere, by topical measures. Sometimes one, sometimes two, injections were required, and in some cases numerous injections were necessary; but in all the cases thus treated, many of which had been unsuccessfully treated in other ways previously, the disease had been cured. In most cases other treatment was suspended, but in some Dover's powder or perchloride of iron, which had been previously administered, was continued or subsequently prescribed. The cases narrated were—1. In which the disease had lasted several years on and off; two injections were used, and the case was cured in six weeks. 2. Second attack, duration uncertain; four injections used; cured in five weeks. 3. Duration two months; two injections used; cured in three and a-half weeks. 4. Duration five years; one injection used; cured in three weeks. 5. Duration eighteen months; two injections used; cured of dysenteric symptoms, but remaining under treatment for diabetes. 6. Duration fourteen months; one injection used; cured in seven weeks. The treatment, which laid no claim to novelty, was brought forward to elicit the experience of others who had tried it, or to induce others to employ it in suitable cases.

Dr. CARRINGTON, while congratulating Dr. Mackenzie on the success of his series of cases, expressed some doubt whether such good results would be obtained when the treatment came to be more widely practised. It had been tried at the hospital at Greenwich without any remarkable effect, but the injections had not been so voluminous as those used by Dr. Mackenzie, which might, perhaps, explain the fact. He could not help observing that to anyone familiar with the extent of the local lesion in dysentery, the almost immediate cure by the nitrate of silver injections seemed almost phenomenal. The colon was usually capable of holding six pints of fluid, and the three pints used in some of the cases might possibly have failed to reach the affected parts. He should employ the method, however, when an opportunity occurred.

The PRESIDENT observed that large injections of astringent fluids into the bowel had been practised since the time of Hippocrates. He was not sure what the opinion of Indian physicians had been upon this subject, and suggested the possibility that a marked difference might exist between these cases and those occurring in the tropics.

Dr. CULLIMORE asked Dr. Mackenzie whether he would advocate the use of injections in all cases, irrespective of the presumed seat of the lesion? He referred to cases previously recorded, and showed that in many instances the patients had been suffering from recurrent attacks, and had only recently returned to England after long voyages from the tropics. The good influence of complete rest and of suitable food might have been the really essential point in their recovery. Absolute rest was a most important factor. He gave his own experience of the treatment of chronic dysentery in Indian gaols, by means of rest and milk diet. The average duration of the illness was two months. In one case, where he had used an injection of forty grains of nitrate of silver in two pints of water, the chief result was the production of great pain. He mentioned a case which had been apparently caused by starvation, and referred to the common Indian experience of dysentery following famine. He had tried other forms of injection, but with no marked results. Krameria appeared to be useful in some cases. Iodoform only had the effect of checking fœtor.

Dr. DUCKWORTH had only used the nitrate of silver injection in one case, and that without any very striking result. He thought that it was frequently forgotten that a very large number of conditions were apt to be classed together under the label of "dysentery." Purging and the presence of ulceration in the large intestine were the main clinical and pathological phenomena characteristic of the disease. Cases might, however, vary very greatly in their ætiology, and especially in the idiosyncrasies of individual patients. The constitutional state of the patient was a most important consideration in all cases of tropical disease.

Dr. BERNARD O'CONNOR mentioned the case of an Indian physician in whom recurrent dysentery had been cured by a voluminous injection of hot water.

Dr. STEPHEN MACKENZIE, in reply, pointed out that he had purposely used the term "chronic dysenteric diarrhœa" to express the various forms that are met with. He described the clinical course of such cases as seen in hospitals, and quoted the experience of many former physicians of the Seamen's Hospital as to the inefficacy of any of the ordinary forms of treatment. In the very advanced cases, where the bowel was fairly rotten, he did not believe that any treatment could be of service, but in the less severe cases he thought the injection treatment would prove most effective. He would, however, employ sedative treatment at first. The ordinary remedies had been tried, and had failed in all the cases in his series. With respect to the size of the injection, he thought that more than three pints would be liable to stretch the intestine too severely.

Three Cases of Joint Disease in Connection with Locomotor Ataxy.

Mr. MORRANT BAKER contributed the above. The patients were two males, aged respectively 45 and 56; and a female, aged 54. In all, the symptoms of locomotor ataxy were well marked, the disease having existed in one case for about 2 years, in another for a few months, and in the third for 20 years. In two cases (male) the joint chiefly affected was the right knee-joint; in the female the right elbow-joint and both hip-joints, with incipient disease of the left elbow-joint. In all the cases the disease of the joints was apparently a typical example of the affection usually termed Charcot's disease. The joints were much enlarged, the articular surfaces greatly mis-shapen, and the ligaments weakened or destroyed. There had been very considerable

wearing away of the articular ends of the bones—one or other condyle and a large portion of the head of the tibia in the case of the knee-joints, and apparently nearly complete disappearance of the heads of the femora in the case of the hip-joints. The joints were loose and flail-like; although in the case of the diseased elbow-joint, and in those of the knee-joints, the patients retained considerable power of voluntary movement. Mr. Baker remarked that he had brought the cases before the Society chiefly in order to add to the record of facts regarding a rare and not well-understood disease; but he thought a discussion might well be raised in connection with them on the following points:—(1) Whether the disease is actually new? (2) What are its alliances, if any, with rheumatoid arthritis? (3) If connected with the last-named disease, is its occurrence in conjunction with locomotor ataxy a mere coincidence? or do these stand in the relation, one to the other, of cause and effect: and (4) If connected pathologically both with rheumatoid arthritis and with locomotor ataxy, should not all cases of rheumatoid arthritis be considered of neurotic origin, whether accompanied or not by symptoms of locomotor ataxy? There was still another theory possible, even if Charcot's disease and locomotor ataxy and rheumatoid arthritis were all connected in pathological origin. It was conceivable that all arose from some antecedent diseased condition of which the result was expressed in pathological changes, sometimes in the cerebro-spinal nervous system, sometimes in the joints, and sometimes in both.

Dr. Buzzard thought that the views expressed by Mr. Morrant Baker would greatly add to the better appreciation of this disease. But the disease itself was not by any means a new one. He had recently found in Dr. Graves's work, written before the days of Duchenne, an account of a case of typical gastric crises, which were manifestly a part of locomotor ataxy. The symptoms in this case began as long ago as 1823. Since that time a far larger proportion of the population had come under medical supervision owing to the spread of the out-patient system in hospitals. The main point at issue was the connection between Charcot's joint disease and rheumatoid arthritis. He reminded the Society that Charcot first brought up the subject in the year 1868 as an affection of the joints only. Five years afterwards a case was shown in which the joint changes were accompanied by fracture of the long bones, and it was at that time believed that the bone lesion was the principal feature of the disease. Tioville described certain cases of a similar kind. An analysis of the chemical composition of these bones was made by Regnard, who found that a marked reduction in the mineral substances had occurred, the proportion of fat being much higher than normal. He (Dr. Buzzard) would suggest to surgeons the advisability of testing the specific gravity of the bones entering into the diseased joints in these cases. He had found no record of this having been done in Dr. Adams's work on the subject. Bones should be taken for the purpose from each variety of bone disease. With respect to the discrepancy between the experience of Professor Charcot and that of Dr. Moxon, he pointed out that it was valueless as an argument. The peculiar circumstances which enabled the former to see and examine such vast numbers of cases are not present in the practice of the London physician. With his own personal experience of many hundred cases of locomotor ataxy he could point to hardly any cases of joint disease. Such cases did not come to the physician. After seventeen years' experience among large numbers of all forms of nervous disease he had seen a very few cases of swelled joints, but in every instance they occurred in association with locomotor ataxy. Why should other diseases of the nervous system be free from this connection? He thought that these cases of joint disease contrasted most strongly with those of rheumatoid arthritis. The latter might go on slowly for years, and did not break down rapidly as was the case with Charcot's diseases. Chronic arthritis was best seen in workhouses and asylums, and in such institutions he had sought and found numerous examples of it, but not a single case of locomotor ataxy among them all.

Mr. A. E. Barker related particulars of a case shown by him in 1881 of a railway porter who first sought his aid in consequence of a difficulty in micturition, associated with frequency, and some straining. He also suffered from vomiting and epigastric pain at intervals, with much gastric distension, and nausea at other times. Numbness and pain in one foot was also complained of, and on examination a perforating ulcer was diagnosed. A careful examination of the case by Dr. Gowers failed to detect any symptoms of ataxia at that time. A second ulcer developed in the foot, but these improved under treatment. A year later the patient was seen again, and it was ascertained that the return of pain and ulceration in the foot was always synchronous with the occurrence of the gastric symptoms. At the beginning of the present year the same symptoms were observed, coupled with quivering of the muscles of the thigh, and at times sudden and extreme weakness of them. At the present time there was evident commencing disorganisation of the knee-joint, the tibia being partially dislocated backwards, and slightly inwards. Throughout the course of the illness there had been no ataxic symptoms present, and there is still an ordinary knee-jerk. The periodical gastric symptoms have somewhat improved. There had been occasional pains in the legs. No ocular symptoms had been noticed. The patient was exhibited to the Society.

Dr. Duckworth thought that the Society was much indebted to Mr. Morrant Baker for the philosophical views that he had expressed with reference to this subject. He was one of the few surgeons who had not been content to regard the occurrence of the joint disease and the nerve symptoms as merely coincident. For himself, he was satisfied that there was a joint disease in these cases quite distinct from rheumatoid arthritis, and he thought that the clinical features alone would serve to distinguish it. In some of the cases there appeared to be recovery, but in others the disease seemed to run riot and to cause disintegration of the joint with a rapidity and violence not seen in the ordinary cases of arthritis. It seemed hardly likely, moreover, that a physician of Dr. Charcot's position, and with such a vast field of experience, should fall into error in this matter. He admired the philosophical tone of Mr. Baker's remarks as to the possibility of the joint and spinal lesions being both manifestations of a single disease, and pointed out the fallacy of the supposition sometimes indulged in in the deadhouse, that identity of pathological lesions proved the similarity of the processes that have led up to them. He believed that it was not possible to distinguish from the bones alone between Charcot's joint-disease and rheumatoid arthritis.

Dr. Hale White referred to a statement made by Dr. Moxon at a previous meeting, that in thirty consecutive cases of locomotor ataxy he had not met with a single example of the joint lesion, and contrasted it with Charcot's experience in which the cases occurred in the proportion of one in every ten. He thought such a discrepancy as this was remarkable. Many opportunities of observing these joint changes occurred in the dissecting room, and he had lately had the opportunity of seeing one case in which osteo-arthritic changes were present in the larger joints, whilst the temporo-maxillary articulation showed alterations precisely identical with those in Charcot's cases. Such a case formed one of many connecting links between the two conditions. No case had as yet been shown in which a patient with osteo-arthritis was suffering simultaneously from locomotor ataxy. The absence of such a case rendered it difficult to accept the explanation so frequently given, that these joint lesions are simple forms of disease occurring in cases of locomotor ataxy.

On the motion of the President, the debate was adjourned to the next meeting of the Society.

The following living specimens were exhibited:—

A case of Spina Bifida, shown by the sub-committee appointed to investigate the subject, and sent by Dr. Maude, the patient, aged 19, having been under the care of Dr. McLean, of Portland, Dorsetshire.

A case of Spina Bifida, by Mr. R. W. Parker.

Favus, by Dr. Malcolm Morris.

Charcot's disease, by Dr. Buzzard, and Messrs. Turner, Barker, Bowlby, and Morrant Baker.

A case of Muscular Wasting, in illustration of his paper, postponed till the next meeting, by Dr. H. B. Donkin.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 18TH, 1884.

J. W. HULKE, F.R.S., President, in the Chair.

Fatal Hæmoptysis from Bronchial Ulceration Perforating the Pulmonary Artery.

DR. PERCY KIDD showed a specimen taken from the body of a girl, aged 15, who died suddenly from profuse hæmoptysis. At the *post-mortem* examination the body well nourished but extremely blanched. Traces of blood about nose and mouth. Main passages contained blood throughout. Both lungs marked with patches of inhaled blood, and studded with small hard nodules. The left apex contained a large cavity; there were also a few small cavities in the lower part of the upper lobe, and the small bronchi were generally thickened and slightly dilated. A large firm *post-mortem* clot filled the left main bronchus and the secondary bronchi. The bronchial tube to the upper lobe, about half an inch beyond its origin from the main bronchus, had been perforated by ulceration, which implicated this branch and the neighbouring parts of the main bronchus. The ulceration of the bronchus had extended into a secondary branch of the pulmonary artery lying in front of it, the opening in the artery being as large as a hempseed. A little below and internal to this point there was another perforation of the bronchial wall leading into an irregular space containing a crumbling cretaceous bronchial gland. The bronchial ulceration was soft and ragged, and had merely the ordinary characters of scrofulous or tubercular ulceration. The other lung contained no cavities. Bronchial glands generally cretaceous and slightly enlarged. The stomach contained two pints of blood, but was healthy. The intestines showed slight scrofulous ulceration. The mesenteric glands were enlarged and calcareous, and the liver was slightly amyloid. Other organs normal. The hæmorrhage in this case was clearly due to perforation of the pulmonary artery, by the bronchial ulceration, which in its turn was set up by the pressure of an enlarged calcareous gland. The case was an extremely rare one.

Ulcerative Endocarditis.

Dr. CARRINGTON showed this specimen. The patient, aged 23 years, had suffered from acute rheumatism, of three months' duration. He had a soft blowing systolic murmur at the apex, which subsequently became louder and very harsh, and albumen appeared in urine with blood. There was pyrexia throughout. At the *post-mortem* there was extreme ulceration of the mitral valve with rupture of many of the chordæ tendineæ. The spleen contained infarcts. The kidneys showed acute nephritis and contained many infarcts. The stomach contained 15 ozs. of clotted blood, it was dotted with hæmorrhages. Projecting inwards at the posterior wall, near cardiac end, was a hemispherical mass, formed by a false aneurysm into which the splenic artery opened. There was no induration round the ulcer, some recent clot was found in the walls of the stomach round it. The case was interesting because ulceration of the stomach in cardiac disease was rare, and although this was a strong argument against the embolic theory of gastric ulcer this case illustrated one mode of the formation. The three stages seemed to be indicated by the condition of the duodenum without ulceration, and the superficial and deep ulcers in the stomach. Probably the pressure of the effused blood caused local anæmia, and permitted gastric solution. Another point of interest was that an aneurysm seemingly cured might bleed between the sac wall and its contents. The sudden increase in intensity of the bruit had enabled a surmise of rupture of the chordæ tendineæ to be made.

Carcinoma of the Stomach in a Child.

Dr. NORMAN MOORE showed sections of the stomach taken from a girl, aged 13 years, who was brought to the hospital with extreme anæmia and slight anasarca of the face, hands, and legs. Her heart's action was very feeble and she had a loud systolic murmur, audible at the left base. Her pulse was of very unequal beat, and a systolic thrill was to be felt over the whole cardiac area. She had no albuminuria. Besides her anæmia, her chief symptoms were repeated attacks of cardiac distress. She never vomited blood, but two days before her death complained of pain in the abdomen, and was slightly sick once or twice. An enlargement of her spleen was felt. She died five weeks after admission. *Post-mortem*—A new growth of which sections were shown, was found at the cardiac end of the stomach close to the œsophagus. The mass was about three inches across. Its periphery arose from the mucous membrane, and was of the same colour, but its central parts were ragged, dark coloured and very tense. On section, it was red with paler stripes. The outer part of the growth was adherent to the liver, but did not penetrate it. There was a little recent peritonitis apparently due to a slight tear at the periphery of the growth. No glands, and no other organs were infiltrated. There was a very old, and perhaps congenital dislocation of the right hip joint. The heart was greatly dilated. It contained several adherent, softened, *ante-mortem* clots, and there was an adherent thrombus in the left jugular vein. The microscopical characters of the growth were those of a carcinoma with somewhat wide trabeculæ, with extensive mucoid degeneration of the cell contents, but no degeneration of the trabeculæ, and with hæmorrhages into several parts of the growth. Three distinct stages were visible in the growth. In the least degenerate, numerous cells of an epithelial type were collected in large alveoli. In another, advanced mucoid changes were observable in the epithelial cells and in some cells the nuclei had disappeared. In the most degenerate parts almost all the nuclei had disappeared, leaving a mass of mucoid material intersected by traces of the cell boundaries. In all three parts the fibrous trabeculæ of the carcinoma remained unaltered. The early age of the patient was a remarkable feature of the case: it was one of the earliest, if not the very earliest example of cancer of the stomach (with microscopical determination) hitherto recorded. The cancerous mass was less dense than such new growths in the gastric wall usually were but resembled many such cases in the absence of secondary deposits. The child's paternal grandmother died of carcinoma of the descending colon at the age of 53, in 1878, and was examined *post-mortem* by Dr. E. D. Wallis, of Leiston, Suffolk. The growth was not examined microscopically, but there could be little doubt that it was a true carcinoma, and his case might be regarded as an example of the law of heredity that peculiarities tended to appear at an earlier age in the progeny than that at which they occurred in the ancestor.

Mr. HENRY MORRIS referred to a woman with cancer of the breast operated upon, who died, and some months later the mother also had cancer. It was a striking instance of the tendency of the disease to occur at an earlier period in the offspring.

Mr. EVE said that cases of cancer of the stomach were usually cylindrical, in this case the cells were spheroidal.

Mr. CRIPPS disbelieved in the hereditary theory of cancers. According to Dr. Moore's theory, how was it that cancer was still a disease of old age? It ought by now to appear immediately after birth.

Mr. HUTCHINSON thought there was little doubt as to the law. In cases occurring early in life, there was a strong history of cancer in the family as a rule, but not in cases occurring late in life.

The PRESIDENT referred to the case of two sisters who suffered late in life from cancer, the parent having died from cancer in early life.

Mr. BUTLIN thought that in this case there was no evidence of strong tendency to cancer. The Collective Investigation Committee were about to issue a card enquiring especially into the question of heredity of cancer.

Dr. NORMAN MOORE, in reply, thought the law was well established in reference to certain varieties of structure, and it might apply to certain varieties of epithelial structures.

Uterine and Ovarian Disease in Amphibian Birds and Mammals.

Mr. J. BLAND SUTTON exhibited a series of specimens which served to show that flexions of the uterus were not

confined to the human race. The first was an example of retroflexion in a macaque monkey; the second specimen showed acute anteflexion in a bonnet monkey; the third, acute lateral flexion of the uterus to the right side, also in a monkey. In the last two specimens, the pelvis was considerably distorted, as a result of rickets. Two other specimens, illustrating anteflexion of the uterus, were taken from deer; one hyomoschus, which had, a short time previous to its death, given birth to a young one; the other from a molucca deer. The pressure of the anteflexed fundus in the last case had caused atrophy of the anterior wall of the uterus. The uterus of a kangaroo was shown, in which both Fallopian tubes had become greatly distended on account of the accumulation of caseous material in their interior, due to some obstruction of their openings into the uterine cavity. Some of the contents of the tubes had probably leaked into the peritonæal cavity, and had given rise to fatal peritonitis. Mr. Sutton stated that ovarian disease was not uncommon in animals born in confinement, but seemed to be very rare in "wild animals." He observed that it had long been shown that some cysts in the broad ligament frequently arose from abnormal distension of the tubules forming the "organ of Rosenmüller" (the parovarium). He had made an investigation with a view to determine how far the notion of cystic dilatation of functionless tubules held good. The results, briefly stated, were, that male toads possessed the remains of Müller's ducts in a well marked degree; and it was no uncommon thing to find these ducts, which in the male toad were functionless, dilated in their lower third into cysts, some very small indeed, but others of considerable size, and affording indisputable testimony to the origin of cysts from a pre-existing duct. About two hundred and fifty frogs and toads were examined to test the point, and about ten well marked examples of the cyst were found; they were, as a rule, arranged symmetrically. In birds, as in frogs and toads, upon the Müllerian ducts devolved the duty of conveying the ova from the abdomen to the outer world. In the embryo chick, there were normally two oviducts; but the left duct alone persisted, whilst the right one usually disappeared, though now and then a small rudiment of the lower end, from a quarter of an inch to an inch long, remained attached to the cloaca. It might become the seat of cystic change, and in some cases assumed considerable proportions. The occurrence of these cysts was by no means unfrequent; and their presence was injurious, for a cyst might become detached, and set up fatal peritonitis. A curious fact, first pointed out by Hunter, was occasionally noticed; a hen-bird would lay aside the sober plumage of her sex, and take on that of the cock. This fact had been attested by several naturalists of eminence; and Mr. Sutton exhibited a drawing of a hen golden pheasant now living in the Zoological Society's Gardens. Two years ago, she assumed the resplendent dress of the male bird; the only difference being, that there was no white rim to the pupil and no spurs. She lived quite happily with her mate, and they did not fight. This singular change was always associated with disease of the ovaries or the oviduct. In mares, cysts in the meso-salpinx were so frequently found, that in fifty old mares, taken at random, two-thirds possessed cystic ovaries, the cysts varing in size from a grape to an orange, and in number from three or four to a dozen. Careful examination of these cysts had convinced him that they arose by dilatation of the tubules of the parovarium, brought about by the increased blood-supply to the ovary in old age, due to the dilatation of the ovarian veins, much as was seen in the prostate of men advanced in life. Among other animals, he had met with cystic ovaries in a tiger who was born in this country and lived in confinement for twelve years. The cysts were small, numerous, and pedunculated, resembling the incipient cysts so frequently seen about the ovary and Fallopian tubes in virgins. Cystic tumours were also shown from a cat, a goat, and a tree-porcupine. He had brought these facts before the Society, not as mere curiosities of disease occurring in animals, nor as interesting in that they illustrated truths which might *à priori* have been anticipated, but because they demonstrated, unquestionably, that there was a strong tendency for functionless ducts to dilate into cysts.

Mr. Doran said that removal of the ovaries in the young human female was not necessarily followed by loss of feminine character. A large number of thin walled parovarian cysts sprang from the hind part of the parovarium. Papillomatous cysts were sometimes found in these cases, and he asked whether Mr. Sutton had found any such growths. Gaertner's duct was frequently persistent though not always patent. These did not always lead into the urethra, but had been traced sometimes into the vagina near the cervix uteri.

Dr. Drewitt thought that the hen bird taking on male plumage was usually ascribed to old age, but he would ask if disease of the right tube really interfered with and spoiled the function of the left ovarian tube.

Mr. Eve referred to a case in which cyst of Müller duct caused a large tumour. He agreed with Mr. Doran in his view of the cyst behind the ovary. True parovarian cysts had a fluid of low specific gravity, and had no albumen, a point of diagnostic importance.

Mr. Sutton said that the cysts contained albumen; he had not met with any papillary cyst. Such might, however, be developed from the remains from the Wolffian bodies. Gaertner's duct, when patent, often became the seat of cysts. In reply to Dr. Drewitt he said that disease on the right side did not interfere with the function of the left side.

Hydronephrosis from Papillary Growth.

Mr. Knowsley Thornton showed the specimen and drawing taken from a female, aged 32, with cystic abdominal tumour. She had had pain in right loin, colic, and hæmaturia nine years previously. Under the anæsthetic the diagnosis of hydronephrosis was made, and an operation performed by right lateral incision. Three pints of urine, sp. gr. 1011, trace of albumen, were drawn off from tumour during operation. A papillary growth, backed by a calculus found overlapping orifice of the ureter. Probably the papilloma was congenital, and the calculus had formed subsequently. The communication with the bladder was shut off. The left kidney was felt to be enlarged at the time of the operation. The patient recovered.

Bones in Tabes Dorsalis.

Mr. Hopkins showed specimens from two cases of this disease. In the first there was an old fracture of the neck, with changes identical with those of rheumatic arthritis. The patient had presented well marked symptoms of tabes, but no gastric crises; bulbar symptoms appeared towards the close. The right hip joint was too freely movable, and the right knee joint contained an excess of fluid. Left optic neuritis and contracted field of vision had been noticed. In the second case the patient had well marked tabes; there was effusion into the right ankle joint, and also a spontaneous fracture of the left femur. Optic neuritis was observed, and bulbar symptoms had been present. The femur and articular ends of the bones forming the knee and ankle joints presented irregular cartilaginous surfaces, due to ulceration and wearing down of the cartilages. A ring of new cartilage, in part ulcerated, had formed round the head of the femur. The fracture had firmly united.

Card Specimens.

Mr. Knowsley Thornton—(1) Cystic kidney removed by abdominal section. (2) Scrofulous kidney removed by abdominal section.

Mr. Hutchinson, F.R.S.—A drawing of a case of gangrene of the finger in a case of diffuse morphœa.

Dr. Hale White—(1) Ulceration of trachea after tracheotomy. (2) Primary encephaloid cancer of liver.

Mr. W. Arbuthnot Lane—Fracture of sternum.

Dr. W. B. Hadden—Bacilli with cancer of the liver.

Dr. F. C. Turner—Traumatic aneurysm on renal artery.

Mr. Godlee—Extensive fracture of skull, with great separation, and corresponding laceration of brain opening latent ventricle.

Mr. Davies Colley—Synostosis of vertebral spine (living specimen).

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 5th, 1884.

H. Gervis, M.D., F.R.C.P., President, in the Chair.

The following specimens were shown :—

Tubal fœtation—Dr. Sydney Jones for Mr. Lawson Tait.

Fibroid uterus with two cystic ovaries, removed by operation.—Mr. Thornton.

Fibroid of uterus with cystic degeneration, removed by operation—Dr. Aveling.

Retroverted and adherent uterus with two prolapsed and adherent ovaries—Mr. Walter Griffith.

Hagedorn's surgical needles and holder—Dr. Bantock.

Double intra-uterine tube—Dr. W. Duncan.

Greenhalgh's spring pessary with glycerine pad—Dr. Godson.

A plea was raised for the revival of toughened glass specula by Dr. Heywood Smith.

On the severe and so-called "Uncontrollable" Vomiting of Pregnancy.

A contribution on this subject by Dr. Graily Hewitt was read. The author's object was to investigate the question as to the influence of morbid conditions of the uterus in giving rise to the disease. The facts and cases published and available for discussion of this question were now arranged and tabulated and analysed. The first series of cases were 32 in number, and included all cases the author had been able to collect in which the condition of the body of the uterus was noted and observed in cases of severe vomiting in pregnancy. In a second series of cases, 13 in number, the condition of the os and cervix uteri was particularly noted and described. These two series of cases constituted the clinical data available for use in the discussion of the question as to the influence of the condition of the uterus itself in causing the vomiting, and they included 10 cases observed by Professor Horwitz, of St. Petersburgh, 8 recorded by the author, 7 by Dr. Copeman, 2 by Stoltz, 2 by Dance, and single cases recorded by other authorities. In the series of 32 cases there were 28 cases of a very typical description, in which sickness of an intense degree of severity was present in the course of the first half of pregnancy. In the majority of these 28 cases the vomiting was so severe that the question of artificial abortion arose. In 23 of these cases the uterus was in a state of decided anteversion or anteflexion, and in 12 of these 23 cases, there was impaction of the anteverted or anteflexed uterus in the pelvis. In one case the uterus was anteverted slightly, but had been considerably anteflexed shortly before the pregnancy occurred. In 4 of the 28 cases, the uterus was retroverted. It thus appeared that out of the 28 cases in question, the uterus was decidedly altered in shape and position in 27 cases, and in the one case remaining was anteverted slightly. The cervix was thickened and unduly hard in 3 of the 32 cases, and much thickened in 6 cases. In the other series of 13 cases, the cervix was described as very hard in 4 cases. In 2 cases (of the 32 series) pus was found between uterus and decidua after death. Excessive sensitiveness of the uterus was present in most of Horwitz's cases, and in four or five what Horwitz termed parenchymatous inflammation. The remarkable feature in the series of 32 cases was that in all the cases where attempts were made to raise the uterus from its displaced position, and when this attempt was successful, the vomiting ceased; whereas, when the attempt failed, the vomiting continued, and the patient died, the exceptions being those in which artificial abortion was induced, and one in which abortion occurred naturally. In some of the cases, artificial abortion was had recourse to as a primary procedure. Of the 32 cases 11 died, 20 recovered, in 1 result not known. The 20 recoveries included 6 after induction of artificial abortion, 1 natural abortion, 7 after manipulative treatment and replacement of uterus; 6 following positional treatment, rest, anti-inflammatory remedies, &c. The second series of 13 cases were, with one exception, cases in which the new treatment suggested by Copeman was carried out, and in which no record was given as to the state of the body of the uterus. In these 13 cases recovery took place. The author concluded: (1) That the cases in which the disease is due to some other organ than the uterus are so few in number (only 1 in the series of 32) that they may be almost excluded from consideration. (2) That in the large majority of cases the disease presents itself during the first half of pregnancy. (3) That the evidence points to interference with the normal expansion and growth of the gravid uterus as the condition of the production of this dangerous affection, and that this is most frequently brought about by or in connection with retention of the bulk of the uterus in the bony pelvis, in 88 per cent. the uterus being anteflexed or anteverted, and in 12 per cent. in a state of retroversion, the other conditions met with being hardness, resistance or unusual rigidity of the os and tissues of the cervix. (4) There appear to be two factors to be considered capable of interfering with the expansion of the uterus (*a*) incarceration with flexion or version; (*b*) undue hardness, and rigidity of os and cervix. These may be conjoined in a given case. It appears to be borne out by the facts recorded that the incarceration is the more important of the two factors, as a rule at least. The facts appear to point to the occurrence of embarrassment in the expansion of the uterus very early in the pregnancy, such as might be expected to be occasioned by a previously flexed state of the uterus or by a congested indurated state of the cervix, or by the two conditions combined. As the pregnancy advances, the congestion and swelling are intensified, and the resistance to expansion thus increased. It appears probable that the particular cause of the sickness observed is the compression of the nerves situated in the tissues which are especially exposed to compression, viz., those around the cervix uteri, and especially those near the internal os. Copeman's success in the treatment of severe sickness by dilating the internal os is evidence in this direction. The importance of the flexion element has been denied, one principal objection being that sickness is not always present when the uterus is flexed. But the case is the same in the non-gravid uterus; severe sickness is not seldom due to flexion of the non-gravid uterus, while flexions are observed without sickness. Corroboration of the author's views are contained in Gehrung's recent paper. As a rule, severe sickness is limited to the first half of pregnancy, in a very few cases it persists longer; in these rare cases, the cause may be rigidity of the tissues round the internal os, persisting to a late period. As regards treatment, the first indication is to secure the normal upward movement of the fundus uteri, to relieve the incarceration of the uterus, when present, if that be possible, and to prevent its occurrence by a properly arranged method of treatment. Absolute rest in the supine position if anteversion be present or on the face or side if retroversion be present, and the use of the knee-elbow position will be required. These measures suffice in many cases. If the uterus be fixed, gentle continuous pressure must be applied internally by the fingers, or by an air-ball, and the position maintained by a suitable pessary. These measures failing, Copeman's procedure of dilating the cervix should be employed. The last alternative, induction of artificial abortion, will, it is believed, be rendered unnecessary if the other less severe measures are applied sufficiently early.

[The discussion, which was adjourned soon after its commencement, will be given in the notice of the next meeting].

The Female Internat in Paris.—The projected permission of women to become *internes* of the Paris hospitals, which the new Préfet is, it would seem, about to grant, excites great opposition on the part of the medical officers of the various hospitals. At a meeting of the Paris Hospital Medical Society (composed exclusively of these officers), called expressly to consider the question on the 5th November, after a warm address on the part of Professor Verneuil in favour of the ladies, and a brilliant reply by Professor Trélat, the meeting almost unanimously pronounced against the project, there being only four votes in its favour.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN SCHOOLS.

[To the Editor of the Medical Times.]

SIR,—A somewhat important point in connection with this question has lately come under my notice, which should, I think, be clearly understood and duly regarded by all who are concerned in the present controversy as to the existence or the prevention of over-pressure. Dr. Crichton Browne has given evidence, and it is apparent from the recent manifesto of the school teachers themselves, that a large body of teachers believes that over-pressure exists. Mr. Fitch, the apologist of the Code, practically maintains that the danger of over-pressure is fore-stalled by the vigilance of the teachers on this point, and that their desire that children who are in their opinion unfit should be "exempted" or withdrawn from the examinations constitutes a safety valve which may be trusted to regulate the prescribed pressure. Mr. Fitch says in his now notorious memorandum, that on a visit paid by him and his assistants last year to schools containing upwards of 40,000 children, "the exceptions desired by the managers and teachers had been almost always freely sanctioned, except in cases of truancy and unexplained absence." The Code, moreover, provides as follows for this matter of exemption. (Art. 109, *e.* 6). "The following, amongst others, will be considered reasonable excuses for with-holding a scholar, or not presenting him in a higher standard; *delicate health* or prolonged illness; obvious dulness or defective intellect, temporary deprivation, by accident or otherwise, of the use of eye or hand, &c." It would thus seem that if this rule were strictly carried out (and it would only be strictly carried out, especially as regards the words I have underlined, by means of some kind of medical inspection) the evil of over-pressure might be reduced to a minimum if indeed it did not disappear altogether. Now it is obvious that if the teachers' "exemptions" are to be relied on as in any sense a practicable safety valve, such as Mr. Fitch apparently considers them to be, the principle on which they are made is all-important to the question at issue. A recent visit to two large Board schools gave me considerable insight into the matter, and I have reason to believe that the conclusion to which I came would be applicable to every school under the Code. I was asked by a manager to visit certain Board schools with him, in order to indicate, if possible, the children who, from reasons of ill-health, should not be pressed for the forthcoming examination. I found on arriving, that from most of the classes, in expectation of my visit, several children considered to be proper subjects for "exemption" were picked out by the teachers for my inspection. In nearly every case these children were dullards, or "very backward"; some of them indeed obviously from their conformation and physiognomy deficient in intellect, most of them stupid, but scarcely any in such a condition of ill-health, nervous or otherwise, which need have prevented them learning the little all that it was possible for them to learn. The obvious and indeed freely avowed principle on which the teachers had placed these exceptions before me was, that the children could not learn, and therefore could not pass the examinations. In one class only were two orders of "exceptions" placed before me. In this instance a highly-intelligent male teacher had put aside as usual a group of dullards, but also a group of children whom he said he thought would suffer from being pressed, but whom he should be obliged to press against his will if they were not exempted. These children were all intelligent enough, but some were obviously very delicate, and others had been but a short time at work — one regulation of the Code is, that a child who has been in regular attendance during half a school year, should be presented with those who have had the whole year's work. With pressure, the teacher said, which he himself thought harmful, these children would pass well enough. This, however, was the only case in which a teacher seemed to have any notion whatever of making an exception for the child's sake rather than his or her own. The sole object of the teacher's exemptions is to keep up their percentage of passes, for on that their credit, and, indirectly, their position depend. It is clear that the cases on which the regulations of the Code are likely to press most hardly are such as are not likely to be detected by most teachers with the best intentions, but would often be a source of vexation to the teachers' souls if they were withdrawn, for many of them would be bright and industrious enough to do their schooling credit. The teachers are of course in no way to be blamed; they must do their work in the best way they can; but it must be clearly understood and loudly proclaimed that if over-pressure can take place under the Code, the teachers' exemption principle as urged by Mr. Fitch is no safety valve whatever. They do not except the cases which would be harmed, while but little harm could be done by any educational Draco to most of those whom they wish to withdraw.

It may perhaps be conceded to the defenders of the Code that it is suitable to the average child who is well fed, housed and cared for, and subject to no hereditary disease, but the grave question in many London districts at least, is how many children do not come up to this desirable average. That a very large number do not it requires no medical eye to see, and from experience gained elsewhere in addition to my recent visit to these two schools I am sure that, in the East of London at least, there are very many children ill-clad and ill-fed enough to render the question of any educational pressure at all in their cases sadly out of place, and almost grotesque.

I am, Sir, yours &c.,
H. B. DONKIN.

[To the Editor of the Medical Times.]

SIR,—The following was unfortunately omitted from the list of short histories of chorea cases, which you were good enough to insert under the above heading last week:—Nellie L. P., aged 6. "Has always been a sharp child; quick in learning; works hard when at home; always spelling."

I am, Sir, yours, &c.,
F. D. DREWITT.

THE PHYSIOLOGICAL DEPARTMENT AT EDINBURGH UNIVERSITY.

[To the Editor of the Medical Times.]

SIR,—I observe that some notes of mine in previous numbers of the *Medical Times* have called forth a long and angry letter from Professor Rutherford, which appears in your issue of Saturday. Will you permit me to reply to his strictures as briefly as I can?

In the first place he goes back to a remark of mine in your number of October 11th, with reference to Dr. Gibson's resignation, and waxes indignant because his departure was deplored, and regret expressed that he seemed not to have met with sufficient encouragement to induce him to stay among us. Now, I would ask Professor Rutherford to note that no blame was attached to any particular person in connection with this matter, and certainly it was neither expressed nor understood by me that he was in any special way answerable for his assistant's resignation. What I meant to indicate was, that there must be some fault in a system which permitted the withdrawal from our school of so many able physiologists just at a time when their training as teachers was more or less completed, and when we should be justified in expecting their real work as investigators and superintendents of laboratory work to commence. From the way in which Professor Rutherford supposes the blame directed to him and the elaborate defence he thereupon proceeds to make, one would almost suppose that some element of personal unpleasantness had entered into the circumstances of Dr. Gibson's resignation. With evident complacency, Professor

Rutherford gives a list of former assistants who during the past eight years have been withdrawn from our school in order to fill chairs in various home and colonial schools of medicine. He evidently seems to regard this result as in every way satisfactory, and certainly no one admits more readily than I do that it is a compliment to the school of physiology here. But I would ask Dr. Rutherford whether, admitting an unexampled capacity on his part for training professors of physiology, he will undertake to say that the teaching of physiology in the university has gone on without hitch in spite of the frequent changes of *personnel* in his staff which have occurred during the past eight years. It is all very well and proper to train physiologists for chairs in other schools, but is it not Professor Rutherford's first duty to see to the efficiency of his own? Is it right that the status and emoluments of the senior assistant in what is probably the largest physiological department in the world, should be such that the first vacancy in any provincial or colonial school at once attracts him to compete for it? Does he suppose that the assistant working directly under him, doing all or nearly all the practical teaching in his department, influences physiological teaching less than the occupant of a chair in Leeds or Sydney? Would the gentlemen holding these appointments not have found a better outlet for their energy as teachers and investigators as senior assistant in such a department as we have here, and would not the benefit to physiology have been greater than as matters are? If Professor Rutherford would apply himself to improve the position of his assistants so as to induce them to remain longer with him, his time in training them might be saved, his energy directed to greater advantage, his department enhanced in efficiency, and physiology both as regards teaching and investigation greatly benefited. I do not mean for a moment to assert that Professor Rutherford is in any way specially answerable for the state of matters as they stand at present, nor did I suggest such a thing, but I unhesitatingly affirm that a condition of things which permits a biennial change of the official in his department next in importance to himself is deeply to be deplored. Nothing which Professor Rutherford's letter contains proves the contrary.

Professor Rutherford next refers to some remarks of mine regarding the matter of a text-book. He suggests that I attempt to induce his students to "worry" him about writing a text-book. I believe that it is the almost unanimous wish of his students that he should write a text-book, and I certainly suggested that they were quite within reason in asking him to complete either his text-book or his "Notes" begun last year. It may enable you readers to understand the state of the case if I make the following statement. It is supposed to be a special feature of the medical faculties of the Scottish Universities that they recognise the lectures of other teachers besides their own as qualifying students to appear for examination. Thus, theoretically, a certain amount of free-trade is introduced into the teaching for the M.B. While this is nominally so, there is on the other hand, rightly or wrongly, a deeply rooted opinion among students, that it is well for them to be more or less familiar with the expressed opinions of the professors who act as chief examiners as well as teachers. This can only be accomplished in one of two ways. Either the student must attend the professor's class, or else read a text-book of which he is the author, or one which accurately reflects his teaching. In 1880, Professor Rutherford published Part I. of a "Text-book of Physiology" which covered about an eighth part of the course. From time to time during the past three years the second part has been announced by the professor himself, but has been as frequently deferred for some reason or another. Last session, as the result of considerable pressure on the part of his students, he published a small volume of 160 pages, entitled, "Notes of Lectures on Physiology. Fasciculus I." This contained notes on part of the physiology of the blood, the physiology of respiration, and part of that of digestion. They were, so far as they went, admitted to be excellent, and of great value to his students. In a note prefixed to this volume, Part II. of the text-book was again announced as likely to appear this year. I need hardly say that the hopes so raised have not been as yet realised. I may further state that Professor Rutherford has a peculiar way of ending the parts of his books somewhat after the manner of the serial stories in the weekly "dreadfuls." Let me quote the concluding sentences of both his books so far as completed. The test-book ends thus: "By transferring the actual vibrations of the muscle by resonance to a strip of flexible metal, Helmholtz proved that the note actually produced by the——" and the "Notes" thus: "Fig. 16 shows a fairly constant normal secretion of bile, falling during the later hours of the experi——"

I would ask any of your readers if they know any method more calculated to whet the appetite for Part II. than this mode of closing Part I.? It is hard enough for the reader of the weekly serial to have to stop in the middle of a murder; what would he think if he were compelled to stop in the middle of a sentence, let alone the middle of a word? And yet Professor Rutherford says his students "worry" him if they ask him to relieve the suspense of four years!

Professor Rutherford then deals with the subject of research in his laboratory. He states that his laboratory is always open for research, and then proceeds to explain why it is so empty of researchers. First, he says, on account of the Vivisection Act, and, secondly, because of the comparative want of a direct bearing of physiology on medicine. I always thought that in order to understand morbid processes we must first be acquainted with the normal ones, and I should consequently have supposed that the bearing of physiology on medicine was *specially* direct; but since Professor Rutherford says it is not so, I must, I presume, take his word for it.

Next he details the results of the work during the past session. All I can say on reading these is, that they are even less than I had supposed; and if Professor Rutherford thinks they are worthy of the department over which he presides, most men will admit that he has the virtue of being easily pleased. He certainly does not flatter his colleagues when he says he has done more research during the past ten years than any of them, but that is their matter. If more men cannot be got to work than there are at present, what in the name of wonder was the purpose of building such an establishment? And if research-fellowships are necessary in order to induce men to devote themselves to physiology, would it not have been wiser to devote less money to the multiplication of rooms, and have employed the rest for the payment of some men to come and work in them? Professor Rutherford says he has devised laboratories which will serve for centuries to come. Would it not have been better to let the "centuries to come" take care of themselves, and contrive to accomplish a little work in the present one?

Professor Rutherford occupies a distinguished and privileged position. He need not complain if his distinction exposes him to criticism, and his privilege involves obligations. He has practically the monopoly of the teaching of physiology in a gigantic school; the generosity of the public has provided him with unsurpassed accommodation. He admits that he is responsible to "the minutest detail" for the extent and design of the laboratories he governs; have not the public a right to demand that he assumes the responsibility of employing them to the best advantage? The same remarks apply to all his colleagues; they will certainly be required to give an account of their stewardship. They are the guardians of public property; the public have given ungrudgingly, and will unquestionably claim the right of enquiry as to its administration.

I have the honour to be, Sir,

YOUR EDINBURGH CORRESPONDENT.

Edinburgh, November 17th, 1884.

[To the Editor of the Medical Times].

Sir,—Professor Rutherford, in his attempt to answer the charges of your Edinburgh correspondent has wandered into side issues which have little to do with the main question, but which show that he is still sore on the defeat his party sustained in the University in connection with the Medical Bill of last year. He talks of the "delusions" entertained by members of the Edinburgh Extra-mural

School regarding the attitude of certain professors to that school. Does Professor Rutherford really mean to assert that there were no good grounds for the so-called "delusions?" Does he forget the determined fight he and his party made to maintain the extraordinary preponderance of votes given to the Universities, and to Edinburgh University in particular, on the proposed Medical Board? Has he forgotten the letter which appeared in the *Scotsman* of Thursday, May 17th, 1883, under the signature of "Justice?" Does he imagine that it was not well known in Edinburgh that that letter, with its unjust attacks on Edinburgh teachers, and unmanly references to "disappointed" and "rejected" candidates for University chairs emanated from a University source, and was written by a professor? Truly if professors ever managed to dissemble their love they did it then. Professor Rutherford's answer about his late assistant is insufficient. Without doubt private influences may have induced that gentleman to return to Queensland, but there is no doubt here that Dr. Gibson himself was under the impression that he had been treated with scant courtesy by certain of the professors, because of the active part he took in trying to improve the status of university assistants. I do not know who your Edinburgh correspondent is, but there is no doubt he represented a state of feeling that is very prevalent among the younger members of the profession here.

I am, Sir, yours &c.,

AN EDINBURGH GRADUATE.

THE ENGLISH CONJOINT EXAMINATION.

[To the Editor of the Medical Times].

SIR,—I fear the new examination scheme of the English Colleges of Physicians and Surgeons will, unless modified, tend to perpetuate one of the weak points of ordinary English medical education. In almost every other country instruction in Science precedes instruction in subjects purely medical, and in our universities the examinations are so arranged that the student is encouraged to acquire a knowledge of Chemistry before he commences to study Physiology. But it seems that according to the new scheme the student's first examination is to include Chemistry as well as Anatomy, Physiology, and Materia Medica, and he will thus be led to attend lectures on the first three of these subjects simultaneously as heretofore. This combination is objectionable on several grounds. An average first year's student cannot give due attention to all these subjects at once, and Chemistry is habitually neglected, as most lecturers at medical schools know only too well. Again, some knowledge of Chemistry is essential to the due comprehension of lectures on Physiology, but how can this knowledge be secured if instruction in the two subjects commences simultaneously?

Lastly, the combination of Chemistry with Anatomy and Physiology leads students to enter a medical school at an earlier age than they would if attendance on Chemistry were made to precede studies purely medical. Education is hardly advanced enough in England for all the examining boards to insist on such preliminary instruction in Science as is required abroad, but surely a movement in the right direction may now be made by *allowing* students to pass the examination in Chemistry and Chemical Physics before commencing their strictly medical work. They would thus be encouraged to attend a course of Science in the year preceding their entrance on the study of Physiology and Anatomy. If the present combination of subjects is made compulsory, students who take such a course will be placed at a disadvantage, since the examination in Chemistry will be separated from the antecedent instruction by more than twelve months.

I am, Sir, yours, &c.,

D. J. LEECH.

The Owens College, Manchester, November, 1884.

INVENTIONS AND IMPROVEMENTS.

MEAT PREPARATIONS FOR INVALIDS.

MR. GEORGE MASON, of 417, King's Road, Chelsea, has entered into competition with other well-known makers in the preparation of meat essences and other specialties for the use of invalids. We have examined his essence of beef, his concentrated beef-tea in skins, and his savoury meat lozenges, and have found them to be pure and of good flavour. The beef essence, which is the form best suited for medical cases, is especially worthy of recommendation.

MEDICAL NEWS.

THE ROYAL COLLEGE OF SURGEONS.

AN extraordinary meeting of the Council was held on Wednesday last, to discuss Mr. Heath's resolution relative to the election of President and Vice-Presidents, and for other business. In Mr. Heath's unavoidable absence, through indisposition, Mr. Thomas Smith took charge of the first motion: "That the office of Vice-President be for the future held for one year only by the same person."

This was seconded by Mr. Allingham. After a discussion the motion was lost. Six members voted for, fourteen against it, three members were absent, and the President did not vote. The minority included Mr. Thomas Smith, Mr. Allingham, Mr. Holmes, Mr. Cadge, Mr. Lawson and Sir William MacCormac. The majority included Mr. Erichsen, Mr. Marshall, Mr. Savory, Mr. Lund, Mr. Wood, Mr. Power, Mr. Hutchinson, Sir Spencer Wells, Sir Joseph Lister, Mr. Bryant, Mr. Hulke, Mr. Croft, Mr. Hill and Mr. Durham.

The second Resolution, "That the President be elected annually by the Council from among its Members, and that no President hold office for longer than five years," was then moved and seconded, and finally withdrawn by permission of the Council; whereupon Mr. Cadge moved as a substantive motion, "That the President be elected annually by the Fellows in a manner to be hereafter agreed upon by the Council." To this an amendment was moved by Mr. Marshall, seconded by Mr. Wood, and carried *nem. con.*, "That the subject of the election of President be referred to the Committee on Charters and By-laws, to report thereon to the Council." This was also carried as a substantive motion. This Committee consists of Sir James Paget, Mr. Erichsen, Sir Spencer Wells, Mr. Marshall, Mr. Lund, Mr. Cadge, and Mr. T. Smith, together with the President and Vice-Presidents, *ex officio*.

It was also resolved, on the motion of Mr. Marshall, seconded by Mr. Holmes, and carried *nem. con.*, that "The communication from the Association of Fellows, and the accompanying recommendations be also referred to the same Committee to report thereon to the Council."

UNIVERSITY OF LONDON.—M.B. Examination:—

First Examination—George Elliott Caldwell Anderson, Guy's Hospital; Frederick William Bennett, Owens College and Manchester Royal Infirmary; William Henry Bowes, Guy's Hospital; Edmund Percival Cockey, St. Mary's Hospital; Edgar March Crookshank, King's College; John Roberson Day, University College; Harry Lord Richards Dent, King's College; John Philip Glover, St. Thomas's Hospital; William Ayton Gostling, B.Sc., University College; Charles David Green, St. Thomas's Hospital; Charles Gross, Guy's Hospital; Frederick David Irvin, University College; Frederick William Caton Jones, St. Bartholomew's Hospital; John Hervey Jones, Owens College and Manchester Royal Infirmary; Arthur Hamilton Nicholson Lewers, University College; Langton Philip Mumby, Westminster Hospital; Francis George Penrose, University College; John Joseph Powell, University College; Frances Helen Prideaux, London School of Medicine for Women and Royal Free Hospital; Charles Edwin Purslow, Birmingham School of Medicine; Ernest Septimus Reynolds, Owens College and Manchester Royal Infirmary; Rolla Edward Rouse, St. Thomas's Hospital; Frank Rushworth, St. Bartholomew's Hospital; Herbert Ritchie Spencer, University College; William Thorburn, B.Sc., Owens College and Manchester Royal Infirmary; Alfred Jefferis

Turner, University College; John Foster Vince, Queen's College and Hospital Birmingham; Frederick Womack, B.Sc., St. Bartholomew's Hospital; Henry Robert Woolbert, University College.

Second Division—Joseph Rosamond Adie, University College; Daniel Elie Anderson, B.A., B.Sc., University College; Hugh Reeve Beevor, King's College; Letitia Caroline Bernard, London School of Medicine for Women and Royal Free Hospital; Samuel Ferguson Bigger, University College; James Grierson Brown, Liverpool Royal Infirmary; George Frederick Cooper, St. Thomas's Hospital; Joseph Dobson, Leeds School of Medicine; William Arnold Evans, Owens College and Manchester Royal Infirmary; William Wadham Floyer, Guy's Hospital; Robert Garner Lynam, King's College; William Herbert Lister Marriner, St. Thomas's Hospital; Charles Joseph Parkinson, Owens College and Manchester Royal Infirmary; John Raglan Thomas, St. Bartholomew's Hospital; Theodore Thomas, Universities of Aberdeen and Edinburgh.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 13th, 1884:—

Alfred Naylor Darlington, Queen's College, Birmingham; David Davis, King's College; Joseph Jewitt Dickinson, Cambridge and London Hospital; Alfred Dudley Edginton, St. Bartholomew's Hospital; Albert Ernest Foster, Leeds School of Medicine; Ernest Humphry, St. Bartholomew's Hospital.

King and Queen's College of Physicians in Ireland.—The following Licentiates in Medicine of the College, having complied with the By-Laws relating to membership, pursuant to the provisions of the Supplemental Charter of 1878, have been duly enrolled Members of the College, viz.:—

Henry Lionel Smith, Lic. Med., 1869, Kirkwall, Orkney; Thomas F. Young, Lic. Med., 1877, Bootle; Frederick Joshua Roberts, Lic. Med., 1878, Enniscorthy.

At the usual Monthly Examinations for the Licences of the College, held on Monday, Tuesday, Wednesday and Thursday, November 10, 11, 12 and 13, 1884, the following candidates were successful, viz.:—

For the Licence to practise Medicine:—

Robert Abraham, Aughnacloy, County Tyrone; John Martin Coates Cole, Clones, County Monaghan; Eugene Crowley, Bandon, County Cork; Ignatius P. Doyle, Dublin; John J. Gaynor, Roxboro', County Roscommon; Daniel Kenny, Ballyconran, County Wexford; Patrick Joseph Kiernan, Dysart, County Westmeath; Annie McCall, London; John McGuiness, Dublin; James Longheed Rowlett, Dublin.

For the Licence to practise Midwifery:—

Robert Abraham; John Martin Coates Cole; Eugene Crowley; Ignatius P. Doyle; Thomas Frizell, M.D., R.U.I., Dungannon; John J. Gaynor; Charles Hayden, M.D., R.U.I., Carrick-on-Suir; Daniel Kenny; Patrick Joseph Kiernan; Marcus Moore, London, M.D., R.U.I., Myroe, County Derry; Matthew McAulay, M.D., R.U.I., Castlewellan, County Down; Annie McCall; John McGuiness; James Longheed Rowlett; Hugh Smith Morrison, M.D., R.U.I., Garvagh, County Derry; William Alexander Wadsworth, M.D., R.U.I., Brookeboro', County Fermanagh.

Royal College of Surgeons.—Mr. William Scovell Savory, F.R.S., Vice-President of the College, will deliver the annual "Bradshaw Lecture" on Thursday the 4th proximo. This lecture was founded by the widow of Dr. William Woods Bradshaw, F.R.C.S., some time Mayor of Reading, in memory of her husband. The lady left 1,000*l.* each to the Royal Colleges of Physicians and Surgeons for that purpose.

M. Pasteur.—It is stated that M. Pasteur is about to proceed to Rio Janeiro in order to study the yellow fever.

University of Cambridge.—Professor Humphry has been elected to represent the University in the General Medical Council for a further period of five years. Dr. Michael Foster has been elected President of the Cambridge Philosophical Society.

Edinburgh Royal Infirmary.—Several thousand pounds have been recently bequeathed to the infirmary, subject to certain life-rents.

The Hospitals Association.—The programme of papers to be read at the general meeting of the Association, to be held during the winter, has been prepared. The following subjects, amongst others, will be discussed:—"On Hospital Ships," paper by P. Murray Braidwood, M.D. "A Re-discussion of the Out-patients Question," paper by J. S. Bristowe, M.D., F.R.S. "On Horse Ambulances in connection with Hospitals," paper by Captain William Joyner, Chairman of the Northern Hospital, Liverpool. "The relation of the Provident Dispensary to the Hospital," paper by C. J. Radley. The opening meeting will be on the 6th December, but it will take the form of a soirée, and will be held at the rooms of the Medical Society of London, No. 11, Chandos Street, Cavendish Square, when the members will be received by the Council of the Association. We are asked to state that Mr. J. S. Wood, Secretary of the Chelsea Hospital for Women, and Hon. Secretary of the Bolingbroke House Pay Hospital, has been elected a member of the Council of the Hospitals Association, and that he has also joined Mr. J. L. Clifford-Smith as Hon. Secretary of the Association.

Glasgow University.—The election of a Lord Rector of the University to succeed the late Mr. Fawcett took place on Saturday morning. The proceedings were conducted in the Bute Hall. The unanimous selection of Emeritus Professor Lushington by the various clubs deprived the occasion of the interest and excitement connected with past rectorial elections, and the great bulk of the students did not turn out at the early hour of 9 a.m., knowing that the proceedings would be purely formal. This is the only occasion on which a Lord Rector has been unanimously elected by acclamation and without a contest. A torchlight procession took place in the evening in honour of the event, and a holiday was allowed on Monday by the Senate. A holiday in connection with the election of Lord Rector is generally given at the solicitation of the Lord Rector himself, but on this occasion the Senate were willing to draw a distinction, as the Principal said. It may be stated that the new Lord Rector, Edmund Law Lushington, LL.D., was for the long period of 37 years Professor of Greek in the University of Glasgow, a general favourite with his students, and as many said he not only "spoke Greek but thought Greek." The Lord Rector is a brother-in-law of Lord Alfred Tennyson, Poet Laureate. It was intimated last week that there was a likelihood of a request being made to Mr. Matthew Arnold to allow himself to be proposed for the vacant honour, but at the meetings which took place amongst the students, it was found that the desire was not unanimous. Dr. Lushington was then proposed and carried unanimously. He accepted, and was duly elected.

APPOINTMENTS.

Adams, Matthew A.—Analyst for the County of Kent. Re-appointed for one year.

Blumer, W. P., F.R.C.S.E.—Honorary Surgeon to the Monkwearmouth and Southwick Dispensary, *vice* James Murphy, M.D., resigned.

Calwell, W., M.D.—House Surgeon to the Belfast Royal Hospital.

Chadwick, Alfred, M.R.C.S. Eng., L.R.C.P. Edin., and L.S.A. Lond.—Medical Officer to the Heap District, Bury Union, *vice* Mr. James Henry Worsley, deceased.

Cufande, Frank, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer to the Aele District, Blofield Union, *vice* Mr. W. H. Cufande, deceased.

East, C. H., L.S.A.—Assistant House Physician to King's College Hospital.

Fraser, T. A., M.B., C.M., M.R.C.S.—House Surgeon to the North Riding Infirmary, Middlesbrough.

Galpin, George Luck, M.R.C.S. Eng., L.S.A. Lond., M.D. and Mast. Surg. Queen's University, Dublin.—Assistant Medical Officer and Dispenser at the Asylum of the Central London Sick Asylum District, *vice* Mr. Edward Davis, resigned.

Gibb, W., M.B.—House Surgeon to Barnhill Hospital, Glasgow, *vice* Thomas S. Dunn, M.B., resigned.

Grimsdale, T. B., B.A., M.B., M.R.C.S.—Assistant Medical Officer to the Children's Infirmary, Liverpool.

Hall, W. W., M.B., C.M. Edin.—Resident Medical Officer to the Kilburn General Dispensary.

Harris, T., M.D. Lond., M.R.C.S.—House Physician to the Radcliffe Infirmary, Oxford.

Hasell, E. S., L.S.A.—Physician Accoucheur's Assistant to King's College Hospital.

Heaton, Frederic Luxmore, M.B., M.R.C.S., L.K.Q.C.P. Dublin, —Medical Officer to the St. Asaph District and of the Workhouse, St. Asaph Union, *vice* Mr. L. Lodge, resigned.

Hewitt, F. W., M.B. Cantab., M.R.C.S.—Administrator of Anæsthetics to Charing Cross Hospital.

Hodges, Herbert Chamney, M.R.C.S. Eng., and L.R.C.P. Lond.—Medical Officer to the Fourth District, Hertford Union, *vice* Mr. Herbert Busy Hodges, resigned.

Hodgson, G. G., M.R.C.S., L.S.A.—Physician's Assistant to King's College Hospital.

Hughes, Edgar A., M.R.C.S., L.S.A.—Assistant House Accoucheur to King's College Hospital.

Hutchinson, Samuel John, M.R.C.S. Eng., and L.D.S.—Lecturer on Dental Surgery and Pathology at the Dental Hospital of London, *vice* Coleman, resigned.

Jacomb-Hood, C., M.R.C.S., L.S.A.—House Surgeon to King's College Hospital.

LANE, ALEXANDER, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the Presteigne District, Knighton Union, *vice* Mr. Richard Harding.
LITTLEWOOD, J. O., L.R.C.P., M.R.C.S.—Consulting Surgeon to the Walsall Cottage Hospital.
MENZIES, J. H., M.R.C.S., L.S.A.—House Surgeon to the West London Hospital.
MOLONY, J. L.K.Q.C.P., F.R.C.S.I.—Resident Medical Superintendent of St. Patrick's (Swift's) Hospital for Lunatics, Dublin.
OAKES, HENRY, L.R.C.P. Edin., L.F.P.S. Glasgow.—Medical Officer to the Loppington District, Wem Union, *vice* Mr. J. G. Wilson, resigned.
PARKINSON, SIDNEY GEORGE, M.R.C.S., and L.S.A.—Medical Officer to the Second District, Wimborne and Cranbourne Union, *vice* Mr. W. Wyke-Smith, resigned.
PEARSON, SILVESTER, M.D., M. Ch.—Professor of Materia Medica in Queen's College, Cork, *vice* Prof. O'Keefe, deceased.
PENNY, FRANCIS, M.R.C.S., L.S.A.—House Surgeon to King's College Hospital.
REID, FRANK, M.R.C.S. Eng., L.R.C.P. and L.M. Edin., and L.S.A. Lond.—Medical Officer to the Sixth District, St. Saviour's Union, *vice* Mr. J. Tunmer, resigned.
RUNDLE, EDMUND, L.K.Q.C.P., L.M., L.R.C.S. Irel.—Medical Officer to the Sitluey District, Helston Union.
SHEARS, C. H., L.R.C.P., M.R.C.S.—Assistant Surgeon to the Liverpool Eye and Ear Infirmary.
STEWART, A. H., M.R.C.S.—Resident Medical Officer of the Male Lock Hospital, Dean Street, Soho.
TRIMMER, HENRY B., M.D., M.R.C.S., L.S.A.—Medical Officer to the Third District, St. Neot's Union, *vice* Dr. Walker, resigned.
TURNER, N. H., M.R.C.S.—House Surgeon to King's College Hospital.

VACANCIES.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—Resident House Physician. Salary, £65 per annum, with board, lodging and washing in the Hospital. Candidates must be duly registered. Applications with qualification and testimonials to be sent to the Secretary (from whom further particulars can be obtained), on or before Decr. 9th.
ALSTON WITH GARRIGILL.—Medical Officer for the Second District, in succession to Dr. Walter R. S. Jefferies, resigned. Area, 24,000 acres. Population, 2,333. Salary, £8 per annum.
ASHBOURNE UNION.—Medical Officer for the Calton District, in succession to Mr. James B. Hall, deceased. Area, 12,171 acres. Population, 1,638. Salary, £18 per annum.
BOROUGH OF NOTTINGHAM.—Medical Officer of Health. (*For particulars see Advertisement.*)
BRENTFORD UNION.—Medical Officer to the Sixth District, in succession to Dr. Hunter, deceased. Area, 2,920 acres. Population, 8,086. Salary, £60 per annum.
ERPINGHAM UNION.—Medical Officer for the Northrepps District, in succession to Mr. Arthur E. Fluder, resigned. Area, 4,916 acres. Population, 1,170. Salary, £24 per annum.
GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, N.—House Surgeon. (*For particulars see Advertisement.*)
KING'S COLLEGE, LONDON.—Chair of Materia Medica and Assistant Physicianship. (*For particulars see Advertisement.*)
NORFOLK AND NORWICH HOSPITAL.—House Surgeon. (*For particulars see Advertisement.*)
ROYAL CORNWALL INFIRMARY.—House Surgeon. Salary, £120 per annum, with furnished apartments, fire, light, and attendance. Candidates must be legally registered to practise both in medicine and surgery, and unmarried. Applications, stating age, with testimonials to be sent to the Secretary, Royal Cornwall Infirmary, Truro, before November 27th.
ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—Senior Resident Medical Officer. (*For particulars see Advertisement.*)
ST. MARY ABBOTT'S, KENSINGTON.—Analyst for the Parish, in succession to Mr. E. L. Cleaver. Salary, £50 per annum, and 5*s.* for each analysis.
THE BIRKENHEAD EYE AND EAR HOSPITAL AND DISPENSARY.—Honorary Surgeon. Applications, stating qualifications, &c., to be sent to the Honorary Secretary, on or before November 22nd.
WESTERN OPHTHALMIC HOSPITAL, 155, MARYLEBONE ROAD, W.—Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, and have attended Ophthalmic Practice for twelve months. Applications to be sent to the Secretary at the Hospital, on or before November 22nd.
WEST LONDON HOSPITAL, HAMMERSMITH, W—Assistant Ophthalmic Surgeon. Candidates must be Fellows of one of the Royal Colleges of Surgeons of London, Edinburgh or Dublin, and not practising Midwifery or Pharmacy. Applications and testimonials to be sent to the Secretary by November 27th.

DEATHS.

BOWMAN, H. T., M.D., at 22, Windsor Terrace, Newcastle-on-Tyne, on November 13th, aged 30.
CARROLL, WM., M.D., at 37, Lady Lane, Waterford, on November 8th, aged 81.
LANGSTAFF, CHARLES, M.D., of Bassett, near Southampton, at Havre, France, on November 9th, aged 51.
MOSELEY, W. A., M.D., at Cheltenham, on November 14th, aged 31.
RAINEY, GEORGE, M.R.C.S., of St. Thomas's Hospital and Brixton, on November 16th, in the 84th year of his age.
SALL, W., M.D., Deputy-Inspector of Army Hospitals, &c., at Munster Terrace, Fulham, on November 15th, aged 73.
SEWELL, J. J., M.R.C.S., L.R.C.P., at Guy's Hospital, on Nov. 10th.
WILSON, JOHN, Surgeon-General, Madras Army, retired, at Lonsdale, Newton Abbot, on November 13th, aged 56.
WRIGHT, THOMAS, M.D., F.R.S., at 4, St. Margaret's Terrace, Cheltenham, on November 17th, aged 75.

NOTES, QUERIES, AND REPLIES.

VITAL PROCESSES IN ADVANCED LIFE.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In your last number you quote Professor Humphry's statement that wounds in the aged heal more rapidly than at earlier periods of life and the same remark applies to the union of fractures, and you observe that the professor apparently has not been able to form any theory entirely satisfactory to his own mind and so he offers no explanation. I would suggest that these results admit of explanation as it is a well recognised fact that wounds or ulcers do not heal, or the process of repair in fractures commence while inflammation be present. In early periods of life the circulation is vigorous and the nutritive functions are in activity and inflammation in consequence more apt to follow injury. These attendants of youth are absent in age, therefore the healing processes are not disturbed by inflammation, indeed there may be so little energy that sloughing may result in cases of wounds or disunion in cases of fracture. In the same number of your journal, I observe a communication of a case where the person was grey at the age of 62, and the original colour of the hair was restored when he died at 83. I think it would be worth while to enquire how long he was dyeing before he departed this life.

I am, Sir, yours &c.,

M.D.

"*Querist*,"—1. If the Guardians elect a duly qualified and resident District Medical Officer the appointment is valid without ratification by the Local Government Board; but no salary can be legally paid to the Officer unless it has been previously sanctioned by that Board. If the Medical Officer appointed is not fully qualified, or does not reside in the District, the Guardians can only employ him for such period as the Local Government Board approve. 2. You can obtain it as a subscriber, but it is cheaper to obtain it as a Member.

Royal College of Surgeons.—Essays for the Jacksonian Prize, awarded by this institution, for the present year must be sent in on or before Wednesday the 31st proximo. The subject for this prize for the ensuing year is "the Diagnosis and Treatment of such affections of the Kidney as are amenable to direct surgical interference."

COMMUNICATIONS RECEIVED—

Dr. S. WEST, London; Dr. DONALD MACALISTER, Cambridge; Dr. G. E. HERMAN, London; Dr. MACEWEN, Glasgow; Dr. EUSTACE SMITH, London; Dr. RABAGLIATI, Bradford; Dr. GEORGE W. GAY, Boston; Mr. W. H. BRIDGMAN, London; Mr. W. YOUNG, London; Messrs. ALLEN & HANBURY, London; THE SPONGY IRON FILTER COMPANY, London; Mr. H. SAINT MAUR, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. W. J. SPENCE, Bradford; Mr. A. J. HARVEY, London; THE HON. SECRETARY OF THE OBSTETRICAL SOCIETY, London; Mr. P. S. ABRAHAM, Dublin; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; OUR GLASGOW CORRESPONDENT; THE REGISTRAR-GENERAL, London; THE SECRETARY OF THE INFIRMARY, Newcastle-on-Tyne; OUR VIENNA CORRESPONDENT; M.D.; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Mr. W. E. PORTER, Lindfield, Sussex; Dr. D. J. LEECH, Manchester; Dr. LANGMORE, London; THE SECRETARY OF THE LONDON SOCIETY FOR THE ABOLITION OF COMPULSORY VACCINATION, London; Dr. MAXWELL ROSS, London; THE REGISTRAR-GENERAL, Edinburgh; THE HON. SECRETARIES OF THE CLINICAL SOCIETY, London; THE SECRETARY OF THE MEDICAL SOCIETY, London; Messrs. SOUTHALL BROS. & BARCLAY, Birmingham; THE SECRETARY OF THE PARKES MUSEUM, London; THE SECRETARY OF THE HOSPITALS ASSOCIATION, London; OUR PARIS CORRESPONDENT; OUR EDINBURGH CORRESPONDENT; Dr. BURNEY YEO, London; Mr. T. M. STONE, Wimbledon; Dr. CLIFFORD BEALE, London; Dr. CHOLMELEY, London; Mr. HENRY MORRIS, London; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE, London; Mr. CLEMENT LUCAS, London; Mr. J. STARTIN, London; THE SECRETARY OF THE UNIVERSITY OF LONDON; THE HON. SECRETARY OF THE HUNTERIAN SOCIETY, London; Dr. CLIFFORD ALLBUTT, Leeds; Mr. J. B. BARNES, London; THE REV. R. L. BAMPFIELD, Dulverton, N. Devon; THE HON. SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; Dr. R. G. DAUNT, St. Paulo, Brazil; THE SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London.

BOOKS RECEIVED—

Girlhood, by Dr. Alice Ker—Hygiene, by Edward F. Willoughby, M.B. Lond.—Practice of Medicine, by Robert J. Graves, M.D., F.R.S.—L'Estomac, par Le Dr. Marc Mathieu—Aids to Public Health, by J. L. W. Thudichum, M.D., F.R.C.P.—On the Healthy Manufacture of Bread, by B. W. Richardson, M.D., F.R.S.—Quarterly Return of Births, Deaths and Marriages in Scotland, for the quarter ending September 30—Elements of Surgical Diagnosis, by A. Pearce Gould, M.S., M.B. Lond.—Report on the Health, etc., of Kensington, from October 5 to November 1—Clinique Chirurgicale, par Le Dr. Charles Monod—Guy's Hospital Reports, Vol. xxvii—Annual Report on the Condition of the Combined Sanitary District of West Sussex—The Transactions of the Medico-Chirurgical Society of Edinburgh—Annual Report of the Taunton Sanitary Hospital—Report on the Sanitary Condition of the Whitechapel District, for the quarter ended September 27, 1884—Public and Private Responsibility in Sanitary Matters—Intestinal

Obstruction, by Frederick Treves, F.R.C.S.—Report on the Sanitary Condition, etc., of the Parish of St. Matthew, Bethnal Green, for 1883—Report on the Water Supply of Newcastle-upon-Tyne—Index-Catalogue of the Library of the Surgeon-General's Office, United States Army—The American Method of Giving Potassium Iodide, etc., by E. C. Seguin, M.D.—Illustrations of the Anomalous Course of Posterior Spinal Sclerosis, by E. C. Seguin, M.D.—The Ambulance Movement in Scotland, by James Whitson, M.D., F.F.P., and S.G., F.R.M.S.—Diseases of the Spinal Cord, by Byrom Bramwell, M.D., F.R.C.P.—Medical Examination—Club-Foot, by Der Forest Willard, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Kliuische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—Centralblatt für die Mediciuischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médical—Revista de Medicina—North Carolina Medical Journal—The Alienist and Neurologist—Popular Science News—The Chemist and Druggist—The Midland Medical Miscellany—Centralblatt Therapie—The Journal of the Vigilance Association—The Dublin Journal of Medical Science—Society—The Journal of the British Dental Association—The Canada Lancet—The Canadian Practitioner—Revue de Chirurgie—Revue de Médecine—The Medical World—The American Journal of Obstetrics—The Western Medical Reporter.

APPOINTMENTS FOR THE WEEK.

Friday, November 21 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Society of Medical Officers of Health, 1, Adam Street, Adelphi, London, 7.30 p.m.—Meeting. Mr. Alfred Spencer, on "Noxious Trades."

Saturday, November 22.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, November 24.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London, 8.30 p.m.—"A Discussion on Anæsthetics"—(1) Paper by Mr. Woodhouse on "The Brain" Discussion opened by Mr. G. H. Bailey.

Tuesday, November 25.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Anthropological Institute, 8 p.m.—Dr. J. G. Garson, "Exhibition of a Prehistoric Skull from the Island of Antiparos;" Dr. W. H. Coffin, "Note on the Abnormal Dentition of a Hairy Boy from Russia;" Miss A. W. Buckland, "Facts suggestive of Prehistoric intercourse between East and West;" Mr. Horatio Hale, "On some Doubtful or Intermediate Articulations;" Mrs. Erminie A. Smith, "Remarks on the Customs and Language of the Iroquois."

Royal Medical and Chirurgical Society, 8.30 p.m.—Henry Morris, M.B., F.R.C.S., "A Successful Case of Lumbar Nephrectomy for Renal Calculus."

Wednesday, November 26.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operatious), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Hunterian Society, 8 p.m.—Dr. Goodhart, on "Water on the Brain;" Dr. Herman, on "The Number of Persons who Suffer from Headaches;" Mr. Charters J. Symonds, on "The Spontaneous Disappearance of Nævi."

Thursday, November 27.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Parkes Museum, 74A, Margaret Street, Regent Street, 8 p.m.—Lecture by Dr. Alfred Carpenter, "On Progress and Co-operation in Sanitary Work."

Friday, November 28.

Clinical Society of London, 8.30 p.m.—Adjourned discussion on Mr. Morrant Baker's Paper, "On Cases of Charcot's Joint Disease." Living cases will be exhibited at 8 p.m., as well as some illustrative specimens sent by Professor Charcot. If time permit, a "Case of Tumour of the Frontal Lobe, with few symptoms," by Dr. Hale White, will also be read.

Quekett Microscopical Club, University College, Gower Street, 8 p.m.—Ordinary Meeting. W. F. Bates, "On the supposed Sexual Threads in Zygnemacea.

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The Medical Times *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

SUMMARY OF CONTENTS, NOVEMBER 15.

MEDICAL TIMES

AND GAZETTE.

No. 1796. LONDON, SATURDAY, NOVEMBER 29, 1884.

Contents.

CLINICAL LECTURES ON THE DISEASES OF WOMEN.

By J. MATTHEWS DUNCAN, M.D., F.R.S.

Physician Accoucheur to St. Bartholomew's Hospital.

II.—*On Endometritis.*

Having no supreme central authority to define terms and punish deviation from proper use of them, we have much to suffer. Who can tell what anyone means by endometritis? Often its use is the parent or the child of ignorance and confusion; often it is a cloak of ignorance and confusion.

In beginning this lecture I must make it clear what I do not mean by it and what I do mean by it. It is not chronic cervical catarrh or "ulceration," a disease which is sometimes called cervical endometritis. The uterine cervix is a different organ from the uterine body, and endometritis is inflammation of the corporeal endometrium, that is the mucous membrane of the body of the womb. Those who speak of cervical endometritis speak of this as corporeal endometritis. Time is too precious to permit the survival of such long names as "corporeal endometritis." Further distinction has been made of inflammation of a part of the corporeal endometrium, that of the fundus uteri, fundal endometritis; and this I cannot adopt, in the meantime at least. No doubt a part, not the whole, of the corporeal endometrium may be inflamed, partial endometritis, but that is a very different matter from describing as a distinct disease an endometritis of the fundus.

Inflammation of a part or of the whole of the corporeal endometrium I shall call endometritis, and in so doing I believe I concur with the best literary examples.

I may, in passing, mention to you the occurrence of endometritis in pregnancy—decidual endometritis. Sometimes a hypertrophic endometritis is seen in abortions, sometimes a croupous, sometimes a catarrhal, with or without accumulated hydroperione. Exaggerated hypertrophic endometritis is occasionally observed in abortions after fever, and I have seen it well developed after ordinary typhoid. With or without syphilitic infection you may have decidual endometritis, affecting the vera, and producing projecting masses or little tubera, or affecting the serotina and resulting in the production of fibrous tissue and sometimes consequent adherent placenta. Then you have catarrhal inflammation of the vera,

often seen in advanced pregnancy, and often the cause of the hydrorrhœa gravidarum.

Again, you have endometritis of the puerperal state, sloughing or diphtheritic, seen in *post-mortems*. Rarely you have purulent endometritis after delivery, with very copious flow of laudable pus; often you have catarrhal endometritis, with copious flow of thin, and generally blood-tinged, serous fluid—lochial catarrh.

Then you have, after the puerperal state has passed, it may be long passed, and this whether the delivery was a mere abortion or at the full time, a purulent endometritis, the discharge being very copious and often fœtid, and all produced by a retained, often a putridly decomposing, bit of decidua, or of placental tissue. This disease you will not cure otherwise than by removal of the retained mass.

These various examples of endometritis have all connection with pregnancy, and are not, in ordinary medical writing or speaking, thought of when this disease is the subject.

The endometritis of elderly women, that is, of women after the menopause, is seldom heard of, but it is a true endometritis, not extremely rare, and we have had it illustrated in our work in "Martha." I call it the endometritis of elderly women because I have never seen it except in such. Here is a museum specimen of it, as observed in a case of cancer of the cervix. The internal os uteri had become closed—acquired atresia—and the body expanded into a globe as big as a small orange, its walls somewhat thinned (they were distended by pus), its internal surface lined by a thin pyogenic membrane. When an elderly woman has occasional or constant bloody, or blood-tinted, discharge, or purulent discharge, and still more when the discharge is fœtid, it is natural to entertain the gravest suspicion that she has cancer of some of the internal genital organs; and yet it may be only a senile vaginitis or an example of the endometritis of elderly women. Several such cases I have seen diagnosed as hopeless cancer of the uterine body and yet they were easily cured. No doubt this is rare good luck, and it is important to know it. In this disease there is generally little or no pain, the woman notes only the new and alarming discharge. If you dilate the uterine cervix by tangle tent, and this must be done carefully, you find the uterine cavity somewhat expanded. Instead of having practically only two dimensions, it has three, or is more or less globose. Your finger passed into it may feel nothing peculiar, or it may feel a portion of the mucous membrane slightly elevated, and softer than the rest, and this is plainly the diseased part. It is cured by local applications, and the cure may be effected after the disease has lasted for years. In the few cases which I have observed, a 10 or 20 grain to the ounce solution of nitrate of silver has been used, injected through a hollow probe; or powdered nitrate of silver has been passed in Lallemand's port-caustique. But, alas, in most such cases you are doomed to failure. Good may come from your cauterisation, but the disease persists. It is a commencing epithelioma, not an endometritis. It is only in the earliest stages of commencing malignant disease that you are liable to this confusion, and I know of no way of diagnosing except retrospectively. If it is cured it is an endometritis. Retrospective diagnosis is not of much value to your patient. It is prognosis that you desiderate.

The next endometritis that I mention is the pseudo-menstruation of fever and of rheumatism. It is known to be an endometritis, for, after death in such cases, the mucous membrane is found in a catarrhal condition, swollen, red, and bleeding. The ovaries also are found to be affected simultaneously. In another place, indeed, speaking of ovaritis, I have pointed out its frequent association with corporeal endometritis; and pseudo-menstruation.

Now, at length, I come to what would be in the present day called the real (the common!) endometritis; and I know nothing more unsatisfactory. I often hear of it, but very rarely do I find any evidence of its existence. Much is said of it, and I remind you that many authors delight in long descriptions of what is little known or not known. There is, truly, little to be said of what is known. If you go back to the French journals and elsewhere to read the first and starting descriptions of this disease, you will be very much disappointed—little else than verbiage. The disease is often called granular; but who has seen or knows anything about these granulations? No doubt a granular condition, seen after death, has been described, and this is very valuable; but in the case whose *post-mortem* description I remember, there were no symptoms during life. In reading and in conversation I often met with a granular condition observed during life, but all the time I am inwardly most sceptical. I have looked for it carefully and often, but I have never seen it or felt it. Then it is said, Oh! take a curette and scrape it out, and then you have the diseased tissue in your hands. But the scrapings are very small and you would get the same by scraping a healthy uterus. There is, indeed, nothing more unsatisfactory.

Yet I have no doubt there is endometritis; and, if it has any symptoms, they are very ill-defined, or unknown as yet. The disease is suspected by finding menorrhagia or a prolonged secretion of thin bloody fluid. A great writer says the fluid is glairy, but this is a mistake. The cervix is more or less patulous. If the cervix is dilated by tangle tent the body of the uterus is found to be expanded, its cavity having three dimensions, or being globose, and its surface very soft, or feeling villous. Two cases with all these characters we have recently had in "Martha," and I would not consent to founding a reliable description of a disease on two cases. These cases we treated by ergot and painting the uterine cavity with tincture of iodine. If this dilatation and painting is thoroughly done, you may bring your patient into more danger and disease than resulted from the original malady. You must, therefore, be very careful and circumspect. Of course the local remedies can be applied without dilatation, in a somewhat hap-hazard fashion; for without it your diagnosis is imperfect.

To give you an idea of the rarity of the disease, or of anything like it, I may tell you what I did one winter. You know what a large number of cases come to the out-patient department and how they are attended to by Dr. Godson. Well, I secured his special attention to

finding for me cases of endometritis that we might specially study them that winter. We got not one.

Endometritis with copious secretion of pus, or of thin, watery, or blood-tinted fluid, is not rare in connection with uterine fibroids; and this is perhaps partly explained by the liability of these tumours to all degrees or kinds of inflammation. I show you here a museum specimen of a uterine fibroid, in which the uterine cavity was dilated and filled with pus.

Then membranous dysmenorrhœa is generally supposed to be the result of inflammation of the menstrual membrane—menstrual endometritis. The mucous membrane gets hardened, blood is effused at the junction of its superficial and deep layer, and so the superficial layer is separated, and then it is thrown off in large flakes, or rarely even unbroken, and is discharged on the first or second day of the flow. The discharge of small soft thin flakes of the superficial layer is common in healthy menstruation. It is the discharge of the entire membrane (very rarely) or of large patches, as thick as a shilling or thereabouts, that constitutes this disease. The dysmenorrhœal pain accompanying the discharge is not of the greatest, not such as is seen in a case of dysmenorrhœa spasmodica. You distinguish the disease from monthly abortion, the membrane in this case being much thicker and richer than the dysmenorrhœal membrane and the disease being cured by celibacy. You will find it hard to do any good in a case of membranous dysmenorrhœa. I cannot tell you any treatment that is likely to even ameliorate the condition. Yet, of course, you regulate the general health and you may try iodide of potass or corrosive sublimate. In the virgin, I meantime advise you to abstain from local treatment.

Chronic endometritis is described as sometimes ending in atrophy of the mucous membrane and complete arrest of function. The mucous membrane is said to be replaced by a thin layer of fibrous tissue, from which the gland tubes have disappeared, its surface covered not by cylindrical but by flattened or scaly epithelium.

Nothing has given such an impulse to this subject as the paper of Olshausen, published a few years ago, on what is called fungous or tuberous endometritis, and you may wonder why I have put off to the end of my lecture such an important disease of the mucous membrane of the cavity of the body of the uterus. The reason is that I do not regard it as an inflammatory disease—not an endometritis. You would not call a myxomatous polypus an inflammation. Neither would I so call this. It is a general myxomatous hypertrophy of the mucous membrane, and a similar condition is, I believe, not uncommon in the nose. It is not spontaneously separated and discharged. It is, in my experience, a rare disease. We have had one good case in "Martha," and I have seen lately two good cases in private practice.

The disease has no distinctive symptoms. There may be pelvic malaise; there may be anæmia from loss of blood, for generally there is profuse menorrhagia with more irregular and less severe metrorrhagic loss; or rarely a thin watery discharge may flow, frequently more or less blood-tinted. I have seen the disease only in married women and it entails sterility.

When you examine, you find the uterus, including the cervix, bulky. The latter is pale and may be excoriated. The cervical canal is enlarged, and the swollen mucous membrane of the body I have, in one case, seen as a red mass hanging into or almost through it. This is very deceptive, and you are pretty sure to say to yourself—Oh, here is a clear case, a mucous polypus hanging in the cervix, a simple matter. You seize it with volsella, and it is so soft that you get no real hold. You seize it with forceps and it is compressed and almost disappears between the blades. Now you will perhaps suspect the real nature of the case, retrospectively remarking that there was nothing like a pedicle to the red mass. Then you dilate the cervix by tangle tent; and, passing your finger through it, you feel the enlarged uterine cavity filled with soft tissue, uniform in surface, or hanging in looped up or curtain-like folds. Then, with a curette such as I show, you scrape out this myxomatous tissue, or you may, with uterine forceps, pull it off in masses. You may get away one or two teaspoonfuls of it; and its bulk is small now compared with its bulk *in situ*, for it is an œdematous tissue and the distending fluid has run out. The removed masses are more or less hyaline and almost bloodless, or they may be firmer and distinctly blood-tinted.

This proceeding may cure the patient if the scraping has been complete, but the disease returns and returns, and you may have to scrape again and again. Besides scraping you may try caustics, such as nitric acid; and you may administer ergot to try to induce uterine retraction.

The masses removed by curette present, under the microscope, the characters of ordinary mucous membrane of the body of the uterus, little altered. The adenomatous malignant outgrowth from the endometrium is scarcely liable to be confused with this; it is much larger in mass, more solid in structure, continuous in increase, and has special histological characters.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.
President of the Health Department, Social Science Association, and of the Epidemiological Society.

(Continued from page 538.)

Cretismus.[54]

Wherever Bronchocele is extremely prevalent in India, Cretinism may be found.

Our local medical literature contains a considerable amount of observation upon this disease.

Writing in 1859, Mr. McClelland stated that in one locality alone, during a halt of a few hours, Mr. Nicholson, of Bubnowlee, in the Goruckpore District, collected numerous children — *bowkuts*, or cretins — from an adjoining village for his inspection, as examples of the condition of the people in large tracts of country in

[54] I have thought it well to place Bronchocele and Cretinism together.

his neighbourhood. He found that ten per cent. of the children of the villagers where goitre prevails are *bowkuts*, or idiots. Many are deaf and dumb; their limbs weak and feeble; their features large and without expression; the eyes dull and vacant. They seldom live to attain adult age. Cretin children in these districts are generally, but not always, born of goitred parents. Sometimes one parent has goitre; more rarely the parents are free from the disease. Cretinism begins to show itself at a very early age; the goitre comes on later. Both forms of the disease sometimes go together in the same individual; but there are many instances of cretins without goitre. Mr. McClelland's remarks on the association of goitre and cretinism in Kemaon[55] deserve close attention. He considered that these diseases are intimately connected. He observed that, in the little hamlets where goitre prevailed to a great extent, the people were characterised by a want of enterprise and bodily vigour, as compared with their immediate neighbours, who were free from the disease. "In Goseragong the people are generally affected with goitre, yet there are no cretins among them. The same may be said of Deota; but in the villages of Salmora, Oliel, Goraght, Tomilly, and Ager, which contain 138 inhabitants, 78 had goitre, and 42 were cretins; while there was not one of the latter class to be found in any of those villages that were exempt from goitre. Hence it appears that, in a population in which goitre prevailed to the extent of rather more than 50 per cent., 30 per cent. were cretins; while, in the remaining portion of the people, amongst whom goitre did not extend to above 9 per cent., there were no cretins."

In that variety of goitrous disease which occasions cretinism, the patient is invariably seized before the age of five years, and the disease continues uninterruptedly throughout adolescence. During this time there is a depraved action of the absorbent system, shown in the monstrous development of certain organs; while the natural growth of others is proportionately suspended.

Hence the limbs are short and crooked, the spine distorted, the head often of enormous size, the features bulky and idiotic, and glandular swellings are common on various parts of the body, and seldom entirely absent on the neck. The cretins are not, in general, so imbecile as natural-born idiots. They retain at least some glimmering of reason acquired in childhood, which enables them to perform many useful offices. Cretins are sometimes seen without any great enlargement of the thyroid gland, but such cases are rare, and they are generally much deformed, so as not to be mistaken for congenital idiots. Tumours on the elbows, knees, and other joints, as well as along the course of the lymphatics, are common with the cretins of Ager and other villages in Kemaon.

In writing upon the diseases of Nepaul,[56] Dr. D. Wright notices that, in that country, cretinism, as usual, is an accompaniment of goitre, but the cases seen in Nepaul are by no means very numerous in proportion to the number of goitrous people that are met with."[57] Writing eleven years earlier, Dr. Wright's predecessor, Mr. John Brown, observed that "In the Valley of Nepaul and its vicinity, goitre and in many instances, cretinism prevails to a large extent." He adds that the towns of Deopatun and Nunksal "are affected with goitre and cretinism to a large extent." In his valuable "Observations on Goitre as seen in Oude," my friend Mr. H. M. Greenhow[58] maintains, apparently with too much confidence, that cretinism "is quite unknown throughout the Himalayan regions, and that, according to his own experience in Oude, it is equally unknown there." Out of his 300 cases of goitre he only met with one individual who showed the least sign of weak intellect. This was a boy who was not deformed in body in any way, but whose mind was evidently imbecile. He urges that it is not surprising that, in such a number of persons brought indiscriminately together, one should be found of less than ordinary capacity. Those he examined were generally as healthy and strong in mind and body as are the country people in any part of India he has visited. It will be noticed that, while stationed for a winter at Secrora, Mr. Greenhow "sent his servants and other agents out into the bazars of the town, to bring to him any goitred persons whom they might encounter; and in this manner he soon brought together 300 cases." Doubtless these were mostly sufferers of exceptional vigour anxious to obtain relief by medicine, while their torpid cretins remained inactively at home. At any rate, a special search for cretins by medical men who may travel through that district appears desirable.

Dr. Coates stated, in 1880,[59] that Chumparun is a peculiarly goitrous district. Goats and sheep, dogs and horses suffer from the disease. Cretins (*bods*) are frequently met with in goitrous villages.

In his paper on "Goitre," which I have cited in my notes on that disease, in speaking of the great prevalence of bronchocele in the districts about Motiharee, Segowlee, Bethiah, and on to Goruckpore, indeed, along the whole line of the Himalayan Teraie, Dr. Mouat says; that, in reply to the question "Have you seen any cases of goitre patients whose intellect was affected by the disorder? Captain Cunningham, who had treated some 25,000 cases of goitre, replied, "I have seen many cases of goitre patients whose intellect was decidedly affected by the disease, as, after the goitre was reduced, they appeared much more intelligent, and like rational creatures, which they were not before." He added, "However, there are so many idiots about this part of the country only slightly afflicted with goitre that it would be difficult to say whether idiotcy was actually induced by it, or the symptoms increased in those whose intellect was naturally defective."

Between London and the Snowy Range, Dr. J. Fleming saw many cases of goitre, but few cretins.

Surgeon-Major Ross[60] found goitre very prevalent in Kashmir, especially in the Sind Valley. It almost exclusively affects females. "Some cretins are to be seen."

In a paper on the Medical Topography of Orissa, published in No. X of the "Indian Annals," Dr. Shortt makes bare mention of the fact that "cretins are met with in many parts of the Hill Districts."

I am not aware that the above remarks by Brown, Wright, Greenhow, and Mouat have led to any systematic enquiry into the subject of cretinism in the Sub-Himalayan Districts. I shall be grateful for further information upon this important subject from brother officers who may visit those localities. Late research having shown that cretinism may attend congenital deficiency, or acquired disease of the thyroid, and may follow its ablation, it will be well to learn something regarding the mental condition of those innumerable native patients in whom goitre has disappeared under the use of biniodide of mercury ointment. In conducting such enquiry, valuable data may be looked for in the observation by Professor Kocher and Dr. Lardy, of Berne[61] who declare that a progressive cachexia, designated by Kocher *cachexia strumi priva*, is very liable to be induced by extirpation of bronchocele.

[55] *Op. cit.* p. 105.
[56] *Indian Medical Gazette*, August 1, 1867.
[57] "Indian Annals of Medical Science," No. xi., p. 176.
[58] "Indian Annals of Medical Science," No. xii., p. 449.
[59] *Indian Medical Gazette*, for that year.
[60] *Indian Medical Gazette*, for October, 1878.
[61] Beilage zum *Centralblatt für Chirurgie*, and *Union Médicale*, December 6, 1883. *Medical Times and Gazette*, vol. ii., for 1883, pp. 273 and 693.

This they find to be characterised by great anæmia, tumefaction (especially of the face), and a diminution of intellectual activity, furnishing a display of symptoms resembling those of cretinism. Dr. Lardy adds that a remarkable feature in these cases is "the brutalized countenance these unfortunate persons assume, while they become incapable of executing any employment that demands intelligence." We are told that Professor Billroth, who has himself performed thyroidectomy 120 times, entirely denies that this condition is liable to follow the operation.

The experience of M.M. Jaques Louis and Auguste Revertin[62] confirms the observation of M.M. Kocher and Lardy. They noticed torpor of intellect, puffiness of the face and extremities, which, however, did not pit on pressure, and an alteration in the complexion, a whitish yellow colour, not that of anæmia or albuminuria, but similar to what is seen in some cretins. It is added, "These symptoms closely resemble some of those noticed in cases of *myxœdema* which have been recorded by Ord, Hadden and others, and the similarity is especially noteworthy from the atrophy of the thyroid gland which has been observed." A very important discussion on the association of cretinism and myxœdema with changes in the thyroid gland took place at the Pathological Society on the 23rd of November, 1883, and it is understood that the society will appoint a commission for the investigation of this question.

Although bronchocele is not endemic in the Delta of the Ganges, many cases present themselves there. I did not see cretinism or myxœdema in Lower Bengal.[63]

Diabetes.

Glycosuria is frequent among rich elderly natives in Calcutta, many of whom are fat and indolent and immoderately fond of sweetmeats. I heard of several fatal cases of carbuncle in such diabetic patients.[64]

Writing in 1871,[65] the Editor of the *Indian Medical Gazette* remarked that he believed that "among the upper and middle classes of natives in Calcutta, almost every family had lost one or more of its members from diabetes." Baboo Satcory Dutt had informed him that, in one of the most respectable and influential native families in Calcutta, No. 1 died of acute diabetes at the age of 65; No. 2, his eldest son, of chronic diabetes; No. 3, his third son, had chronic diabetes; No. 4, his fourth son, died of acute diabetes; No. 5, daughter of No. 1, now aged 65, has diabetes; No. 6, eldest son of No. 2, grandson of No. 1, died of chronic diabetes; No. 7, second son of No. 2, has diabetes; No. 8, eldest son of No. 4, has diabetes. In addition, the wife of No. 3 died of diabetes.

I saw, in India, three European gentlemen suffering from this disease. These cases were very chronic. Two of their number attained advanced ages. The third, a Bengal civilian, was found to be diabetic, by one of our best authorities, about sixteen years ago. As he is now a very robust man in green old age, it appears likely that the glycosuria was due to a transient cause. This case is probably explained by Dr. Wilks's observation that, in young diabetic patients, the tendency is sooner or later towards a fatal termination; whilst, in the old, the presence of sugar in the urine is often found in those who are suffering from mere dyspepsia or gout. Cases of diabetes have frequently been detected in India by noticing that flies and trains of large black ants visit the utensil. Morehead gives an account of six cases of saccharine diabetes in natives, all the instances of that disease of which he had personal knowledge in India.

Dr. Cayley relates[66] a case of removal of a scrotal tumour in a native which terminated successfully, although diabetes appeared three weeks after the operation, and recovery was retarded by repeated attacks of secondary hæmorrhage. In 1874, when the milk system in glycosuria was much under discussion, I showed, in the *Indian Medical Gazette*, that, in his Phthisiologia, or a Treatise of Consumptions, Dr. Richard Morton, who died in 1698, gave histories of milk treatment in diabetes.

I did not see *Purpura Hæmorrhagica* in India, and I have met with very few recorded cases.

In a report upon the health of H.M's. 54th Regiment in the Madras Presidency, Mr. Hamilton noticed[67] that six cases of purpura hæmorrhagica had been under treatment, one proved fatal; the immediate cause of death was effusion into the thorax after a very tedious illness. Two men were invalided for this disease. In the treatment, more decided benefit was derived from the use of quinine, with liberal diet and moderate use of wine, than from any other means.

There is[68] a very full report by Dr. Gamble of a case of purpura occurring in a private of the K. O. R. at Bellary, Madras Presidency. There were considerable ecchymosed spots on some and vibices on other parts of the body. There was also hæmoptysis. Two ounces of pure blood of arterial hue were spat up daily. There appear not to have been any febrile symptoms. On the fourth and seventh days there was profuse epistaxis. On the twelfth there was considerable hæmatemesis, followed by melæna. Oranges were then allowed. Slight epistaxis recurred from time to time, but he was convalescent in less than three weeks. According to the practice of the time, V.S. to eight ounces was employed on the twelfth day after the "considerable hæmatemesis." We are told that "the blood drawn separated after a few hours almost entirely into serum; the crassamentum consisting of a mere scum occupying the whole surface of the bleeding cup, of a dark sooty colour."

Mr. Raleigh[69] treated, in 1834, a stout well-made sailor, aged 21, who, having come from America in 123 days, had been about two months in Calcutta. On the voyage he had been fed principally on salt provisions, but since coming into port, had been liberally supplied with fresh meat and vegetables. He had invariably been in good health at sea, and during his last voyage "had been perfectly free from scurvy" or other complaint. When he had been about a fortnight in port, a "red rash" appeared, without any accompanying indisposition, on his face, chest, arms and thighs. The spots became daily more numerous, larger and darker for six weeks. Three days before his admission, "copious bleeding took place from the mouth, from which a constant draining of blood had continued." The reporter does not precisely indicate the source from which he considered that this hæmorrhage (the stools frequently contained large quantities of blood) proceeded, but perhaps the explanation appears in the following paragraph: On the dorsum of the tongue were five black *elevated* spots of the size of a pea, and on the inside of each cheek were two others of the size of a sixpence with irregular edges, the soft palate and uvula were thickly

[62] Review of their note—"Sur vingt-deux Opérations de Goitre." *Medical Times and Gazette*, vol. ii., for 1883, p. 527.

[63] For numerous data relative to Bronchocele in India, see an article from the *British and Foreign Medical Review*, fully cited in the *Indian Journal of Medical and Physical Sciences*, vol. v., p. 47, N.S., for 1840, and an article on "Bronchocele," by Mr. Brett. *Ibid* vol. iv., p. 438, N.S.

[64] Baboo Kamikha Nath Acherjee gives, in vol. ii, p. 201 of the *Indian Medical Gazette*, two cases of carbuncle and boils in well-to-do natives in which the characters of these diseases led him to discover that diabetes was present.

[65] *Indian Medical Gazette* for December, p. 259.

[66] *Indian Medical Gazette*, for August, 1875.

[67] *Madras Medical Quarterly Journal*, vol iv., p. 329.

[68] *Ibid*, p. 369.

[69] *Indian Journal of Medical and Physical Sciences*, vol. iii., N.S., p. 734.

speckled with petechiæ, the gums were *not* ulcerated." He had no contraction or stiffness about the joints. The face, chest, and trunk generally, but particularly at the sides, over the shoulders and nates, were thickly covered with spots, varying in size from that of a pin's head to the circumference of a large pea, and of various shades of colour, between bright purple and dark brown, not elevated. On the forearms and nates were several large vibices in stripes, as if produced by the lash of a large whip; these were very black, and irregularly raised so as to feel rough. His countenance was rather sallow. He declared, on admission, that he experienced no uncomfortable sensations or pain. His appetite was good and he slept well. In the first ten days of his treatment, there was occasional mention of feverishness and headache. There was considerable bleeding from the mouth for four days in hospital. From the fourth to the sixth day, much blood passed by the urine, which, for the first two of these days, was loaded with mucus. Upon the principle which then ruled practice—that hæmorrhage indicates V.S.—he was bled eight times from the arm during the first nine days "and lost at least 120 ounces of blood, independent of the enormous quantity which flowed from the mouth and was voided by the stools and urine. He took a powerful cathartic daily." On the sixteenth day after admission, he was reported "perfectly recovered, a little weak." It is added, "he was never so much reduced by the treatment as to be confined entirely to his bed. I found him daily walking about the hospital, and he always walked to the door or window of a morning, in order that I should examine the eruption."

My friend Dr. Herbert Baillie recorded[70] the case of a male infant to which he was called when it was nearly exhausted by hæmorrhage from the gums which he had lanced five days previously. The bleeding was with difficulty stopped by the application of nitrate of silver. There was the peculiar flea-bite appearance seen in purpura over the body and limbs. Dr. Baillie then recalled the fact that, during the two preceding months there had been an occasional appearance of maculæ on the trunk. There would appear a little lump under the skin nowise discoloured. In two or three days the swelling increased and was accompanied by an erythematous blush, which in a few days more extended, and became of a deeper hue, leading to the belief that suppuration was about to take place, when, in another day or two, being then larger in circumference than a rupee, the place became bluish, then green, and disappeared gradually like a bruise. The decline of these patches closely resembled the changes seen in cases of erythema nodosum, which it also resembled in the presence of fever. The house being low and damp, the family removed the child to a boat on the river, and to Calcutta, where recovery was speedy.

In 1878, Mr. Harden reported a fatal case of purpura hæmorrhagica in a Hindoo boy of 10. There was dry gangrene of both feet.[71]

The gaol returns for 1881 give the death from purpura of a prisoner in the Bombay Presidency, and three admissions of soldiers' children, all in the Bengal Presidency.

(*To be continued.*)

THE FRENCH STUDENTS' NUMBER. — The *Progrès Médical*, for the 8th November, is exclusively occupied by an account of the Medical Schools, hospitals, &c., in France, and the various lectures delivered at them. It contains more than 50 pages of closely-printed double columns, quarto, and is sold separately, price sixpence.

[70] "Indian Annals of Medical Science," No. 7, p. 297.
[71] *Indian Medical Gazette*, for March, 1878.

THE NUMBER OF PERSONS WHO SUFFER FROM HEADACHES.

By G. ERNEST HERMAN, M.B., Lond.,
Obstetric Physician to the London Hospital &c.

ONE point which is incidentally raised in the controversy between Dr. Crichton Browne and Mr. Fitch, relates to the frequency of headaches in children. Dr. Crichton Browne went into some schools, and asked those children who suffered from headache to hold up their hands; and he adduces the large proportion who did so as some evidence of the existence of over-pressure in those schools, quoting Sir Richard Owen to the effect that if more than five per cent. of children suffer from headaches, there must be something wrong. Mr. Fitch thinks enquiry to be answered by the holding up of hands a very rough and uncertain way of ascertaining the facts. But it seems to me that as the conclusion that headaches were excessively frequent in the schools under examination is drawn from comparing with Sir Richard Owen's estimate the number of headaches ascertained in answer to enquiry, a much more important fallacy lies in the assumption that Sir Richard Owen's opinion is correct. I have not seen any account of the evidence on which it is founded; and it is plain that its value entirely depends upon what steps Sir Richard Owen took to find out what proportion of children in general suffer from recurrent headaches.

I was led to make some enquiry into this point when commencing the study of the diseases of women, because I found headaches so frequently associated with these diseases, and, in works upon the subject, so commonly described as reflex effects of uterine disease. It seemed to me that before we could put down headache as a regular reflex effect of uterine disease, we ought to know whether headache is more frequently associated with uterine disease than with disease of other kinds; and whether it is more common in women suffering from uterine disease than in women of the same class who consider themselves in their ordinary health.

To get information on this point, I, in 1876 (when engaged as Medical Registrar to the London Hospital), went round the general medical wards, both male and female, and enquired of each patient whether *before the present illness* he or she had been subject to headaches. Those patients who said that headaches had come on with the illness for which they entered hospital I excluded altogether, putting down their answers neither as negative nor affirmative. I also excluded those patients, chiefly men, who said that they had had headaches after getting drunk, or in connection only with some equally definite occasional cause, and also those who entered hospital for some cerebral disease of which headache might be regarded as an early symptom. With these exceptions, I took every patient without any selection. As my object was only to get an approximate idea of the frequency of headache for my own guidance, and not to make a complete investigation of this intricate subject, I did not carry my enquiry very far. I regret now that I did not enquire of larger numbers. But as I can find no other numerical estimate of the frequency of recurrent headaches, I think even these small figures worth publication. It is well known that recurrent headaches are extremely common. Dr. Liveing says "there are few people who have not some acquaintance with it, either in themselves, their families or friends."[1] I enquired of 67 women, and 95

[1] "Megrim, sick headaches and allied disorders," 1873, p. 5.

men. Of the 67 women, 44 said they were subject to headaches; 23 were not subject to them. Of the 95 men, 25 said they were subject to headaches, while 70 did not so suffer. I have notes in some cases of the age at which the headaches began. I am sorry they are so few in number, but I give them for what they are worth. Of the 44 women, 16 said they had suffered from them as long as they could remember; 1 mentioned 7 as the age at which they began; 6 said they began at 15 or 16. Of the 25 men, 5 had had them as long as they could remember, 1 said since boyhood, 1 since the age of 12, and another since the age of 22.

The proportion of men to women suffering from headaches agrees fairly with the estimate formed by other investigators. Liveing,[2] basing his statement only on 53 cases, finds them slightly more common in women than in men. He quotes Labaraque, Calmeil and Lebert to the effect that headaches are much commoner in women, and Symonds, who found that out of 90 patients so suffering, 76 were women.

With regard to the age at which the headaches begin, all agree that they most commonly begin in early life. Symonds found that half his patients had suffered from them as long as they could remember; Liveing found that 11 out of 49 assigned a similar duration to their trouble, and that 16 out of 49 had begun to suffer before they reached the age of 10.

Out of my total of 162 patients 42·6 per cent. suffered more or less from recurrent headaches. Of the total number questioned 12·9 per cent. had suffered from headaches as long as they could remember, but information as to the age at which the headaches began was only obtained in less than half the cases. Taking the lowest enumeration, that of Liveing, as representative, it would seem that a third of the people who suffer from headaches begin to do so before they reach the age of 10. Applying this to my percentage, it would seem that, taking boys and girls together, about 14 per cent. of all school children might be expected to suffer from headaches. This estimate may or may not be correct, but I can find no other attempt to form an estimate based upon facts. I may point out that as the figures I use were collected from adults in the year 1876, School Board regulations could only have affected a few of them, and those not early enough for the blame of their attacks of headache to be attributed to the Board school.

It may be added also, that Liveing estimates that in half the cases these headaches are hereditary. It is of course well known that the attacks of headache are often excited by emotional disturbance, anxiety, or mental strain of any kind, and it must be admitted that a child subjected to undue educational pressure is liable to have inherited headaches thereby intensified in severity and increased in frequency. But before the mere fact of a number of children suffering from headache can be regarded as any evidence that educational over-pressure exists in a particular school, we need to know that headaches are more frequent in the children of that school than among children in general; and we need to know also the number of such children that inherit from either or both parents a tendency to recurrent headaches. And the same caution should be used in judging of the connection between headaches and uterine disease. That the catamenial period may provoke an attack of headache, and that uterine disease may cause headaches to be more severe and frequent, I think cannot be denied; but before setting down headache as simply a reflex result of uterine disease, we should enquire as to the patient's previous history as regards headaches, and also as to her family history on the same point.

[2] Op. Cit., p. 22.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

WESTMINSTER HOSPITAL.

A CASE OF CHOREA—DEATH, WITH SYMPTOMS OF ACUTE MANIA.

By H. B. DONKIN, M.B., F.R.C.P. Physician to the hospital; and
R. G. HEBB, M.D., Pathologist to the hospital.

(For the notes of the progress of this case we are indebted to Mr. T. SWAIN, House Physician.)

A. G., a girl aged 20, a cloth-sorter, was admitted into Westminster Hospital on July 30th, 1884, suffering from general and well-marked choreic movements, and manifesting also great excitability, knocking down a nurse soon after admission into the ward, and running downstairs screaming. She soon, however, quieted down and was got to bed.

The history of the case showed that the girl had been "very delicate" up to 14 years of age, but with the exception of having had scarlatina at four years old, had never been laid up. There had never been any symptoms of rheumatism. The father of the patient had suffered frequently from delirium tremens, and had much alarmed her mother two months before patient's birth. Just two months before admission, the patient was much frightened by being detained all night in an excursion train, which, by reason of some accident, was delayed in a siding. She complained immediately afterwards of numbness of the legs, great "nervousness," headache, loss of appetite, and of gradually failing sight. On the 26th July, she was first noticed to drop things, and the speech became affected, general chorea rapidly ensuing.

On admission a well-marked systolic bruit was heard over the præcordia, loudest at the apex. The heart's action was irregular, and the respirations jerky.

July 31.—During the previous night the patient was very restless, but appeared rational. She complained of palpitation and a feeling of a "ball in the throat." During this day she took food well, but was very talkative and did not sleep at all.

August 1.—No sleep last night. Menstruation began at four a.m. Patient talked nonsense all night, and continues to do so to-day. Fancies her mother is dead, and in the next room. Is very excited, and alternately shrieks out and has fits of crying. In the evening she was still more excited and incoherent, refused to take some chloral that had been ordered her, became furious, jumped out of bed and assaulted the nurse. At ten p.m. she had a hypodermic injection of morphia, and another in two hours afterwards.

August 2.—At two a.m. (two hours after the second hypodermic injection) the patient fell asleep for two and a half hours, then awoke suddenly and became almost unmanageable. At six a.m. the fury suddenly ceased, and she slept again for two hours. On awaking, the choreic movements were very violent, but otherwise the patient was tractable. About three p.m. she became again suddenly violent, turned the nurse out of the room, locked herself in and began breaking the furniture. The door was forced open, and the patient was with difficulty restrained from doing harm to herself and others. A hypodermic injection of morphia was given, but she continued to rave for about two hours.

Then she became exhausted and fell asleep. About six p.m. the nurse noticed a sudden change in her respirations, and going up to the bed found her dead. The temperature was immediately taken and found to be 107° F. In the morning it had been 100°, and had previously ranged between 97·8° and 99·6.°

Post-mortem examination made 36 hours after death. Body well-nourished. Rigor mortis nearly passed off. There are the usual signs of *post-mortem* decomposition, but though there is much blood-staining of the tissues, and considerable evolution of gas, there are no holes in the viscera. Brain 50 ozs. Dura mater adherent to the bone throughout; with this exception the meninges and their blood vessels seem fairly normal. The brain is of a green colour, and is very soft, especially in its anterior third, where, in places, it is almost fluid. The walls of the ventricles, although their cavities did not seem to contain any excess of fluid, were greatly disintegrated. There was nothing noteworthy in the cerebellum. The spinal cord, reserved for microscopical examination, was fairly firm except towards the lower end of the cervical region. The right pleura was adherent throughout; left pleura normal. At the apex of both lungs was a patch about the size of a bean, of caseation, encapsuled in a fibrous sheath and surrounded for a short distance by a net-work of old and quiescent tubercle. The mediastinal glands were much enlarged, one, the size of a pigeon's egg, being caseo-calcareous. The pericardium was normal. With the exception of the deep-staining of the endocardium, and the softness of its muscular tissue, the heart was quite normal. Careful examination was made of all the valves, but no trace of structural alteration could be detected. At the root of the aorta were several very small patches of commencing atheroma. There was nothing noteworthy in the liver, the spleen, the gastro-intestinal tract or the bladder. The pyramids of the kidneys were of a dark purple colour, while the cortices were pallid and relatively large; their weights were $4\frac{3}{4}$ and 5 ozs. The uterus was normal in position, its cavity was bathed by a thin sanious fluid; the left ovary contained a recent menstrual follicle. There was partial prolapse of the anterior vaginal wall. Hymen circular. Microscopical examination of the spinal cord was made from sections of the cervical, dorsal and lumbar regions. The sections show abnormal anatomical conditions. Throughout its extent, the anterior fissure is merely indicated by the presence of a small blood vessel, which in some places does not extend half-way to the commissure. This defect, most noticeable in the dorsal region, has produced an agglutination of the anterior columns, and apparently owing to the traction on the commissure, a triangular mass rises up between the anterior cornua, giving the appearance of a third or middle cornu. This pseudo-cornu seems to be composed of vertical and transverse nerve fibres with coarsish connective tissue and blood-vessels. In consequence, or rather as part and parcel of this condition of things, the central canal is not only much dilated in some places, but distorted into various curious shapes in others. The distortion is most marked in the dorsal region, the dilatation in the cervical. As this forward traction has been made unequally, the halves of the cord are asymmetrical, the asymmetry being most marked in the cervical region. In the lateral columns of the cervical enlargement and immediately adjacent to the posterior roots, the connective tissue has an almost fibrous appearance, and this fibrosis is almost limited to the side of asymmetry. In the lumbar region the peculiarities alluded to, although present, are but slightly noticeable. The blood vessels of the cord generally are large, tortuous, and very frequently unusually placed. Finally, the presence of bacilli would be expected from the condition of decomposition of the body, but how far the numerous micro-organisms in this particular case are to be considered putrefactive must be left an open question. Within the blood-vessels of the cord,

Fig. 1.—Cervical Region.

Fig. 2.—Dorsal Region.

The asymmetry, so marked in the cervical region, is unfortunately but little noticeable in the plate.

advancing along their coats, large numbers of rod-like bodies were detected. Within the vessels their position is irregular, and they are fairly uniform in size, while in the coats of the vessels they are seen as long filaments of unequal length, and lying parallel to the long axis of the vessel. Yet it must be added that a few were seen scattered about outside the vessels. The chief points to remark in this case seem to be as follows:—

(1) *The healthy condition of the valves of the heart: though there was a well-marked mitral murmur.* In this context we would quote another case (also unconnected with rheumatism) with a mitral murmur, in a child of five years old, whose death from other causes during chorea afforded an opportunity of examining its heart. The valves were carefully inspected, and found to be perfectly normal.

(2) The possible connection of the cerebral symptoms with the changes indicated after death. The brain was too far gone for microscopical examination, but the anterior part, as has been shown, was disproportionately softened. The temperature was found to be 107° just after death, and there was a remarkable number of bacilli in the blood-vessels of the cord.

(3) The abnormal condition of grey matter in the spinal cord. This faulty organisation may perhaps be considered in connection with the above-mentioned fright, sustained by the mother while pregnant, and with the unstable nervous condition of the patient as evinced by her history and symptoms. But, regarded by itself as an example of abnormal development, it seems worthy of record.

(4) The oncoming of the nervous symptoms, headache, failure of sight, &c., two months before admission, immediately after a great fright which seemed completely to upset her. (In this case there was no suspicion of rheumatism, either personal or hereditary.) It is unfortunate that her recurrent violence and her short life in the hospital made a thorough clinical examination of her nervous system quite impossible.

Medical Times and Gazette.

SATURDAY, NOVEMBER 29, 1884.

THE profession has suffered a serious loss in the death of Dr. Mahomed, the intelligence of which has been received by all who knew him, and still more by his personal friends, with feelings of the sincerest regret. We have given in another column as full a sketch of his career and character as our space allows, but may repeat here that the profession can ill afford to lose a man of such marked enthusiasm, industry, courage, and determination as Frederick Mahomed. His loss will be most severely felt at Guy's Hospital, where the influence of his earnest and unselfish enthusiasm upon the students, and the impact of his strong personality upon their minds, have been warmly appreciated by all his colleagues. The profession has also suffered considerable loss this week in the death of Leslie Maturin, of Dublin, who forms the subject of our second obituary notice. He, too, died of a zymotic disease, contracted in the course of his daily work. These two mournfully premature deaths, added to that of a London student, who died last week of small-pox, caught from a patient, should still further impress upon the public the serious character of the risks which daily threaten the life of the much-abused medical practitioner.

A CRY has been lately raised against the *bona fides* of the competitive examination through which candidates obtain, or fail to obtain, commissions in our naval and military medical services. It seems that Irish candidates have been rather markedly unsuccessful at these examinations of late, and, not unnaturally, perhaps, this is held in some quarters to be only a new instance of "injustice to Ireland." Nothing less than that could explain the failure of the candidates from the Irish medical schools! It was in expectation, it may be supposed, of finding some proofs of the suspected misdealings of somebody connected with the Burlington House examinations, that on Thursday se'night, Mr. Sheil asked the Secretary of State for a return of all the marks gained at the last two examinations for the Army Medical Department. Lord Hartington replied that, for obvious reasons, it is not the practice in any examinations to give the marks obtained by unsuccessful candidates, unless they can be designated by numbers; and in the examinations for the Medical Staff the candidates are not known by numbers. He stated that the vacancies had in all cases been filled by the candidates who obtained the highest aggregate of marks in the compulsory subjects of the examination, without failing to, at the least, reach the standards in all of them; and he added that marks in the voluntary subjects have value only in determining the place of a candidate who is already in the list of those who have succeeded in virtue of the marks gained by them in the compulsory subjects. We especially republish this part of Lord Hartington's reply, as it is of great importance to candidates, and though it is in accordance "with the published terms of the competition," we suspect it is very often overlooked or forgotten. Lord Hartington further said that he did not see why an unsuccessful candidate should not, on application, be informed of the marks he gained, and that therefore he should give directions accordingly; the more willingly as he understood such information can be obtained in the case of the Naval Medical Department.

THE Authorities of the War Office have determined that the regulations as to examinations for promotion to the rank of Brigade-surgeon shall be put in force at once. Lord Hartington stated in the House of Commons last week that vacancies in that rank have not been filled up since the issue of the circular of August 1st as to those examinations. The senior Surgeons-major who have to be examined are serving in all parts of the world, and no promotions are to be made till all their examinations have been held, and been considered. The home examinations are fixed for the 27th and 28th of the present month; those for the colonies on December 1st; and those for India as soon as the necessary arrangements can be made. The promotions made will be ante-dated to the time when the vacancies severally occurred, so that the officers promoted will not suffer by the delay. As the officers concerned will have had but very little time to prepare for the new ordeal it cannot be supposed that the examination will be a severe one; and as it seems probable, to say the least, that some of the officers affected must, in India and the colonies, be in stations where there are no medical officers of higher rank than themselves, it must be supposed that in such cases the examination will consist solely of paper work, in answer to prescribed questions. But it does not appear that any question was put to Lord Hartington upon this subject.

A DISCUSSION on anæsthetics was expected at the Medical Society on Monday last, but it was a signal failure. Mr. Woodhouse Braine contributed a very interesting paper on the subject—an abstract of which appears in another column—and as many specialists were present, some, we believe, by invitation, an instructive debate was expected. Thanks, however, to the intrusion of irrelevant subjects, such as vivisection, experiments on dogs, &c., there was a little beyond the opening paper, and some remarks by Mr. Bailey and

Mr. Eastes, a valuable evening was thus thrown away. Mr. Braine's paper was full of suggestions and valuable hints for the general surgeon, as well as for those who take up the subject of anæsthetics as a specialty. In this as in other topics there seem some broad differences of opinion ; but as to the greater safety of ether as compared with chloroform, there was complete unanimity. Mr. Bailey rather criticised the opening paper, in which nothing had been said about the dangers of anæsthetics when asphyxia is threatened. The best plan, he thought, was to rely upon vigorous artificial respiration; nitrite of amyl was of little good. He never gave bichloride of methylene, because of its uncertain composition and variable results. He did not think chloroform was so dangerous, when properly managed, as was generally made out ; and he thought a Clover's bag was the safest mode of administering it. He rather deprecated special anæsthetists, and thought every surgeon should be properly taught, and should be able to administer all anæsthetics whenever they were necessary. In country practice it was not possible always to get a specialist. Mr. Eastes thought that Clover's bag was far the safest way of administering chloroform, and that the next best method was that by Junker's apparatus, which was specially serviceable, when used with the small tube, in lengthened operations about the nose, mouth or palate. But he considered chloroform unsafe for adults, from its action as a cardiac depressor. For ordinary practice he strongly advised the use of the A. C. E. mixture. The exhilarating effects of the three parts of ether in the compound antagonised the depressing effects of the two parts of chloroform. But for safety he considered nitrous oxide gas and ether, the former alone for small operations, and the two combined for longer cases, the best form of anæsthetic for adults yet discovered. Mr. Eastes also referred to the methods of relieving patients threatened with syncope, and made some remarks on the preparation of the patients for anæsthesia ; he advocated, like all sensible men, that the anæsthetist's whole attention should be concentrated on his own work.

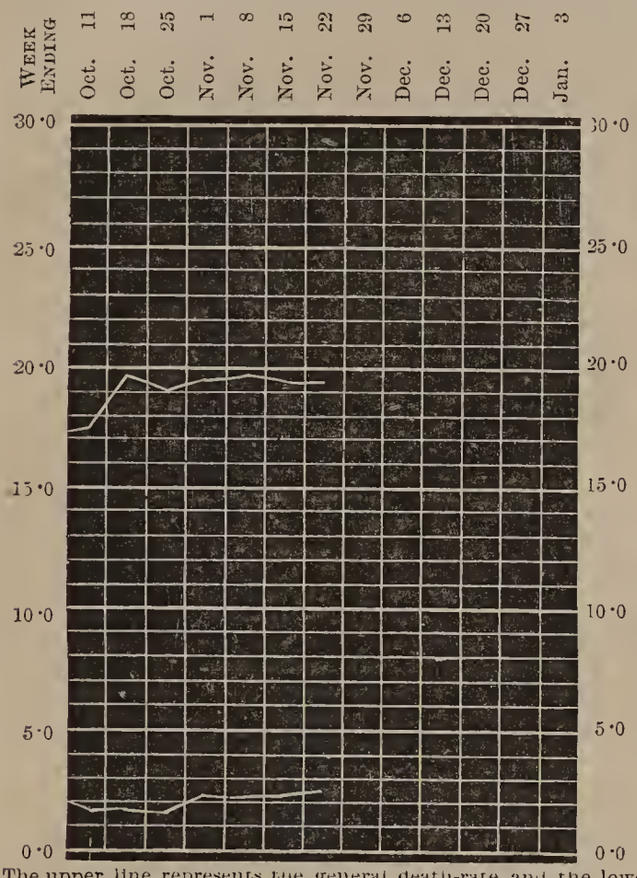
The Society of Medical Officers of Health received a notable accession of strength at its meeting on Friday the 21st instant, in the election of the unprecedented number of twenty-eight extra metropolitan members, besides four associates and five honorary members, viz.: Col. Sir F. Bolton, Capt. Douglas Galton, Professors Koch and Pasteur, and Mr. Trendell, the literary superintendent of the Health Exhibition. A paper on Noxious Trades was read by Mr. Alfred Spencer, whose official position under the Metropolitan Board of Works has given him an unusual acquaintance with the subject and practical experience of the best means for the prevention of nuisances arising from these manufactures. The paper, which was followed by a long and not uninteresting discussion, had been kindly contributed by Mr. Spencer, at the request of the secretaries, in place of one by a member on small-pox hospitals, the reading of which it was thought advisable to postpone until the decision on the Darenth case, judgment in which was not expected to have been given so soon.

The second dinner of the Oxford Graduates Medical Club was held at Limmer's Hotel, on Thursday, November 20th, when members had the privilege of introducing guests belonging to their own or to the sister University. There were present more than fifty members and about twenty guests. The chair was taken by Sir Henry Acland, one of the vice presidents, and he was supported on his right by Dr. Fincham, president, and had on his left Professor Humphry of Cambridge. Besides these, there were present Professor Burdon Sanderson, Mr. Pridgin Teale, Dr. Corfield, Dr. Fowler, secretary to the Cambridge Medical Graduates Club, Dr. Griffin of Weymouth, and many others both from the country and from London. A general meeting was held at which several new members were elected, and after dinner when the usual loyal toasts had been drunk, that of the Club was proposed by the chairman and was responded to by Dr. Fincham, who paid a warm and kindly tribute to the secretaries, whose exertions had been so satisfactorily rewarded by the success of the Club ; he concluded by proposing the health of the guests, coupling with it the name of Professor Humphry, who made an eloquent speech in reply, touching with great tact and delicacy upon the different systems of medical education pursued at the two Universities. The health of the chairman was proposed by Dr. Andrew, and after his reply, a very pleasant evening was thoroughly enjoyed by the members and their guests.

The London School Board, after a debate extending over several weeks, has at last decided, by a majority of twenty-four to twenty, to enquire into the subject of educational over-pressure ; but it has rejected, unwisely, we think, Sir E. H. Currie's carefully worded proposal that "the Committee be *authorised* to request the Presidents of the Royal Colleges of Physicians and Surgeons to name three medical practitioners whom the Committee *may* invite to report for the information of the Board upon the medical aspect of the question." As it is, we can see no guarantee that the Committee will be either willing to give due weight to, or able to duly appreciate, the medical evidence which, after all, much as it has been scouted in some quarters, is almost the only evidence worth taking on the question. We have all along contended for a commission or committee partly composed of medical men, and we see grave reasons to distrust, even in advance, the report of any committee of laymen. Justice, dealing with a single individual, often admittedly fails because there is no means of providing the judge with a medical assessor ; and here is an enquiry involving, according to the indictment, the life and happiness of thousands of individuals, and the decision is entrusted to a handful of laymen, many of whom have plainly manifested their bias against all scientific evidence.

The Registrar-General reports that 1,521 persons died in London last week, 816 being males. Of the total number, 333 were under the age of one year. The deaths from zymotic diseases numbered 176, being 69 below the corrected average, and giving a rate of 2·3 per 1,000. Small-pox counted 46 victims amongst

Londoners, a very high figure, especially when it is seen that there were no deaths from small-pox recorded in the other 27 great towns in England, and none in the 8 principal Scottish towns. The total number of cases under treatment at the end of the week was 768, the new cases having been only 149, or 50 less than the new ones last week. Scarlet fever had 36 victims,



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past seven weeks.

the same number as last week, whilst diphtheria claimed 31 deaths, the same number as in the first week in September, on which occasion the Registrar-General called attention to the fact that it was the highest figure ever reached. Of these 31 deaths, 18 occurred in children under 5 years of age, and 11 in persons between the ages of 5 and 20. Whooping cough was fatal in 24 instances; with one exception, the victims being all under the age of 5 years. The deaths from bronchitis numbered 203, exactly 100 below the corrected average. Our readers will probably not be surprised to learn that there were 3·5 hours of sunshine during the week; on no less than three days no sunshine at all having been recorded. There were 19 deaths from measles in Glasgow, and 16 from scarlet fever in Dublin.

The Conservative Graduates of the Edinburgh and St. Andrews Universities, if they have done nothing else, have, by bringing forward a candidate of their own way of thinking, succeeding in extracting a most interesting speech from Sir Lyon Playfair, the sitting Member. The speech, delivered on the 20th instant, drew together a large audience, comprising most of the Edinburgh professors and leading practitioners. Indeed we are rejoiced to see the medical profession giving such almost unanimous support to a representative, from whose political opinions many of them admit their dissent. Sir L. Playfair began by deprecating the introduction of politics into the contests for University seats, pointing out that such a procedure would lay those seats open to radical attack. He then made an eloquent appeal for the more liberal endowment of the Scottish Universities by the State, showing that the 38,000*l.* a year, by which it was proposed in the last University Bill to endow the four Scottish Universities, was less by 2,000*l.* than the sum granted annually to a single German University, Leipsic. Germany spent large sums in this way, because it knew that such expenditure was most reproductive. Sir L. Playfair then passed to the subject of Medical Reform, and defended the line he took in connection with the last Medical Bill. "I acted in the interests of a higher education for a noble profession, and I intend to act in the same way again. But I hope to see a much simpler Bill introduced next Session A Bill of three clauses instead of seventy-two clauses like that of last Session would suffice, and would give peace to a much agitated profession. Instead of a dead level of uniformity, as hateful in education as it would be in nature, that differentiation of aids and methods in training medical men would, under such a Bill, be continued by the Universities and corporations, which have already done so much to raise medicine to the rank of a learned profession. This cry for uniformity did not arise in Scotland; it arose in England. The hospital schools in England are excellent in their way, but they have not the requisite resources for the development of practical scientific teaching. It is, therefore, with great pleasure that I see a movement for a true teaching University of London, which may become a worthy competitor of our medical school in Edinburgh." We may here interject that the cry for uniformity arose in England, because it is in England that we have most reason to deplore the low standard of the Scottish Corporations.

Sir Lyon Playfair next passed on to show what he had done in respect to the Vaccination and Vivisection questions, in the latter of which he truly said that the well-intentioned benevolence which throws itself into opposition to ascertained experiences in the progress of medicine, is misled by its ignorance of the motives and the objects of science. On the over-pressure question, he said that he at once accepted Dr. Crichton Browne's evidence that there are, in poorer schools in England, children who are physically and mentally unable to grapple with the standards to which they are put. But he contended, and brought forward figures to prove, that on the great mass of school children our educational system had not only had no deteriorating influence, but a powerfully ameliorating one. "The general result at which I have arrived, by a careful consideration of this question, is that we must be guided by medical experience in bringing charitable influences to bear upon the condition of ill-fed and ill-clothed children, so that the ordinary mental exercises, which are not too much for the great mass of our young population, may not bear too heavily on the feeble frames of the sickly and nervous weaklings." The speech was on the whole an admirable one, and as

admitted by Professor Mecklijohn, who seconded the vote of thanks to Sir L. Playfair—proposed by Professor Turner, and carried with applause—it was equally admirable for what it omitted as for what it contained. It was a model of a lucid unpartisan statesmanlike address.

The Hospital *Fête*, organised in connection with the recent visit of the Sanitary Institute of Great Britain to Dublin, and the Sanitary Exhibition at Ball's Bridge, in that city, has brought in a sum of between 400*l.* and 500*l.*, after payment of all expenses, Accordingly, 30*l.* will be handed to each of the twelve large clinical hospitals of Dublin, and 8*l.* to each of the smaller and special hospitals. The only pity is that the amount has to be divided and sub-divided to such an extent, owing to the multiplicity of the participating institutions, that no one hospital will be materially benefited by the donation.

On Saturday morning, November 22nd, an arrest was made in Blackhall Place, Dublin, under the provisions of the Pubtic Health (Ireland) Act, 1878, and upon a committal warrant, signed by one of the divisional police magistrates for Dublin. The prisoner, Alicia O'Brien, was conveyed to Grangegorman Prison, where she will have to remain for a period of two months, unless an alternative fine of 5*l.* is at once paid. The fine was imposed for contempt of a magistrate's order in reference to the insanitary state of some house property in the prisoner's possession. More arrests were expected to take place during the week under the same Act.

The correspondents of the daily press fall into curious errors, through want of care and information, in reporting on medical subjects. The correspondent of the *Standard* in recording Dr. Koller's successes in procuring local anæsthesia of the eye, states that "a single drop of cocaine, the extract of the coca leaf, if dropped into the eye renders it totally insensible." A "drop of the extract" also produces the same effect on the larynx, "a point of the utmost importance in diphtheria and other grave throat diseases." He further states that Dr. Schrötter has made use of it "in operating on an old polypus." We should imagine the correspondent's idea as to who or what an old polypus may be is as hazy as that of the writer who recently informed the world that Dr. Klein had swallowed a microbe. If the lay journals think it necessary to keep their readers *au courant* with medical progress, they would do much better to rely on the medical writers on their own staffs, or to give extracts from the English medical journals. There would then have been no necessity for the *Standard* to publish "Blinkstein's" letter, for it would have known that English ophthalmic surgeons have been exciting themselves over cocaine for weeks.

Another item for the despondent medical teachers of the Metropolis! The Brussels' correspondent of the *Daily News* writes—"In proof of the renown of the Brussels University abroad, and the esteem in which its teaching is held, I may observe that since 1864, 157 British physicians and surgeons have obtained the degree of M.D. (of these 29 passed last year), besides 20 unsuccessful candidates." The correspondent is of course wrong in his deduction. The renown and teaching of the University have nothing at all to do with the numbers of its British medical graduates, everyone of whom would have preferred a British degree many times over, if he could have got one on reasonable terms. A system which compels a man like the late Dr. Mahomed to go abroad for one degree and subsequently to spend scores of hours in the railway train to obtain another, stands self-condemned, and sufficiently excuses us for going out of our way to publish the following apt lines, sent us by a correspondent :—

"Dura Mater."

There was a wise lady—initials L. U.—
She had so many children, she knew not what to do;
What others had taught them she yearly assessed,
Passed one out of six and got rid of the rest.

The Local Government Board has recently issued three reports (to be obtained of Knight and Co., 90, Fleet Street) of enquiries made by its inspectors into the conditions favouring the outbreak of zymotic disease in three different agricultural towns, viz., St. Albans, Huntingdon and Godmanchester. The St. Albans enquiry was conducted by Mr. Shirley Murphy and had reference to an outbreak of enteric fever in May and June last. It forms a sort of sequel to the report on the outbreak of the same fever in North London last year, which was traced by Mr. Murphy to the milk supplied by the same farm which he now arraigns as the cause of the St. Albans epidemic. The reports on the sanitary condition of Huntingdon and Godmanchester, rendered necessary by the fatal prevalence of diphtheria in these two adjoining towns, are the work of Dr. Franklin Parsons. The three towns dealt with in these reports provide, so far as their sanitary condition is concerned, a striking example of the three degrees of comparison. St. Albans, a town of 11,326 inhabitants is in a fairly good sanitary condition. It is mainly supplied with water of good quality from deep wells, but less than a fourth of the houses enjoy a constant supply. It has a recently constructed sewerage system discharging into a sewage farm, but at the time of the fever only half the houses were connected with the sewers. The outbreak, however, was not traced either to sewer defects or polluted water; indeed the 610 houses still supplied by private wells showed a considerably smaller proportional incidence of fever than those supplied by the water company.

On coming to enquire into the milk-supply as a possible source of infection, Mr. Murphy, after a long and laborious investigation, succeeded in tracing the fever to the milk of a certain farmer Z. He found in fact that of the houses supplied directly or indirectly with Z.'s milk 21·1 per cent., but of the other houses only 0·14 per cent. were invaded by the outbreak. On investigating the conditions at Z.'s

farm, however, Mr. Murphy could form no idea as to the condition which gave Z.'s milk its infective quality. The faulty conditions found at the farm last year had been remedied, and Mr. Murphy admits that the milk was now produced under circumstances of reasonable cleanliness and healthiness. We would, however, remark that it is really a stretch of courtesy to assume that it is only the water used for washing the pails that comes in contact with milk in most dairies, and that even if the passage of fæcal matters from the cesspit to the well could be satisfactorily excluded from consideration in this case, it is by no means improbable that the chamber slops and the water in which the sheets and soiled linen of the earlier cases had been washed may have been thrown on the ground in the vicinity of the well. We are surprised that this alternative did not suggest itself to Mr. Murphy, for it is only in towns that such slops are usually discharged into the drain, and the limited capacity of the iron substitute for a cesspit would in a rural locality make the readier disposal of slops in the open more likely. The moral that Mr. Murphy draws from his investigation is obvious, viz., that "English people should adopt as their invariable rule in the use of milk the custom usual among many continental nations of boiling all milk as soon as they receive it into their houses." To obtain this, however, as a general custom, you must first explode the fallacy almost universally held amongst the poor, that "milk boiled is milk spoiled."

If the sanitary condition of St. Albans may be described as fairly good, that of Huntingdon must be classed as indifferent, and that of Godmanchester as distinctly bad, not to say villainous. Dr. Parsons inspected both towns in 1880, and his recent inspection was made partly with a view to ascertain how far the improvements he then recommended had been carried out, and partly with reference to the prevalence of diphtheria in both towns in 1883. At Huntingdon, some attention has been paid to his recommendations; at Godmanchester none. At the former town while there is evidence of sanitary progress having been made, "there is still much need for further improvement, especially in substituting the town water for that of the dangerous shallow wells, and cleanly closets for filthy cesspit privies; in a better system of scavenging; and in systematic action for the discovery and remedying, or still better for the prevention, of conditions dangerous to health before they occasion disease." At Godmanchester, on the other hand, the town council have taken no steps whatever to remedy the unwholesome conditions pointed out by Dr. Parsons in 1880, and the following *précis* of his report in that year is equally applicable now: "a mere village, in a low-lying damp situation, subject to floods. Cottages old, dilapidated, ill-ventilated, and overcrowded. Sewers of defective construction. Water-supply from shallow wells liable to pollution; some houses unsupplied. Offensive midden and cesspit privies very close to houses. Great accumulations of filth. No proceedings taken for the abatement of nuisances. No public scavenging, byelaws, or hospital accommodation." As to the causation of the outbreaks of diphtheria, Dr. Parsons has to confess that he is unable to form any definite opinion.

The following *Jeu d'Esprit* is going the round of the Brazilian journals. It should be explained that the last page of the Thesis for the Doctorate in the Faculties of Rio de Janeiro and Bahia is dedicated to twelve *Aphorisms* of Hippocrates chosen by the candidate which he has to sustain before the examiners. The names introduced, some baptismal, others patronymic, are those by which certain of the professors are commonly known. *Baro* in No. 8 is a titled professor much given to the analysis of Aphorisms. "Cunea," in 12, must be understood as *protection* and *solicitations* of powerful patrons, an important element in deciding the results of examinations in Brazil, though now on a much less scale than formerly.

Examinis Aphorismi.

(1) Natura examinatorum est principium studii. (2) Scientia longa, studium difficile, tempus breve, examen fallax. (3) Si Hilarius Magnus, Cyprianus, Barataque in examinis mensâ intraverint, malum. (4) Si, autem, Benitius, Nunusque, vel Caetanus examinarent, bonum. (5) Dies examinis, si frigoris fuerit, bonum, si pluviæ, melius. (6) In examine clinicæ, questiones faciles bonum. (7) Quos Souza Lima non salvat, eos Nunus salvat; quos Nunus non salvat, eos Benitius salvat; quos, vero, Benitius non salvat, simplificatos existimare oportet. (8) Si thesis in mensâ fuerit Baro, aphorismos cognoscere oportet. (9) Si, quod Deus avertat, unus ex nostris reprobatus erit, in Bahiâ refugium quærere oportet. (10) Si, autem, in Bahiâ, Ludovicus Alves, Braga, Demetriusque in examinis mensâ intraverint. malum; et in Rio ficare, melius. (11) Studiosus, si in cerebro scientiam gestat, coloratior est, si ignorantiam, minus coloratus. (12) Ad extremos rigores, extrema cunca exquisite optima.

Dr. Blaxall's report to the Local Government Board for the year 1882 on Emigration and Immigration from and into the United Kingdom, has lately been placed in our hands. He shows that as regards disease prevention, notwithstanding all that has hitherto been done, matters are still unsatisfactory, and that infectious disease frequently follows in the wake of emigrants from one port to another, and is by them introduced on board ship. With but few exceptions no steps are taken to prevent this latter catastrophe. If the passengers exceed 50 in number they are required to undergo an examination by an officer of the Board of Trade when at the point of leaving the country, but there seems to be no adequate provision for dealing with the case of emigrants coming from the Continent to embark in English ships, when the infectious disease has declared itself. At most of the ports there are infectious hospitals to which a patient can be removed, but until the disease has actually declared itself there appears to be nothing to prevent a person from mixing with others and spreading the disease wherever he goes. Dr. Blaxall considers that there is a great need for a better regulation of the passenger traffic, so as to protect the public, the emigrants and other countries

against the spread of infectious disease, due regard being had to the other interests concerned in emigration. Sanitary measures should not be vexatious or cause delay in the traffic.

Certain facts have recently been brought to light with respect to an outbreak of cholera in Constantinople in the year 1874, which possess more than ordinary interest at the present time, although hidden for so many years within the unfathomable recesses of the Turkish official conscience. During the month of August, 1871, an epidemic of cholera was rampant in the city, and, owing to the want of accommodation, a certain number of patients were lodged in an old disused and condemned building known as the "Hôpital de Maltépé." In one particular ward, it is stated, the mortality was very great. At the close of the epidemic the old hospital was pulled down and a new stone building erected in its place. From motives of economy, however, the same ground plans were employed for the new hospital, so that the various wards were placed on the identical areas of the former wards. In the case of the room which had been so peculiarly fatal at the time of the epidemic, this identity was so exact that it was not thought necessary to take up the old flooring or in any way to alter it. Two years later, at a time when there were no cases of cholera in or about the city of Constantinople, or indeed in any other part of Europe, one of the male nurses in attendance on the sick in this same ward was suddenly seized with all the symptoms of Asiatic cholera, and died in six hours from the onset of the attack. Two other cases occurred in the next twenty-four hours with equally rapid and fatal results. Energetic measures were then taken by the medical officer in command (whose name, Macridi Bey, has a somewhat English ring about it), and the whole of the contents of the infected ward were rendered innocuous, the flooring which had undoubtedly harboured the infective material being completely burnt. Within a short period the ward was again fit for occupation, and has been continued in active use to the present time. The secret of this remarkable outbreak, however, has only lately been acknowledged, and is published in a semi-official communication to a Vienna medical journal. The story is instructive in many ways, and especially in showing the liability of wooden floorings to retain infective materials for so long a period in a virulent form. The daily scrubbing of old and absorbent boards keeps them in precisely that condition which appears most favourable to the spread of cholera.

We lately noticed the useful and voluminous advice contained in the students' number of an American journal, on the subject of study abroad—*i.e.*, in the different English and European Schools of Medicine and Surgery. A later number of the *New York Medical Journal* contains an article on the same subject—"from a moral standpoint," with the object, apparently, of providing the antidote to such poison as the careless, the wicked, or the weak might possibly be able to extract from its previous utterances. It is pointed out that the fact of a man's having "studied abroad" is nowadays of but little account with either the profession or the laity, unless he can give proof not merely of time spent in study, but of time well spent. A small minority go abroad knowing what they wish to do; they do it; and they are generally heard of again. Others start with the mistaken ambition of covering the whole field of medicine in their study; and a yet larger number have little or no definite idea of what they wish to undertake. To the last class, and to the failures and the disappointed among the second class, the dangers are neither few nor slight. There is danger, while broadening his professional knowledge, that such a man will lose in moral tone, in delicacy of feeling, and in tenderness towards suffering; against which the acquisition of a superficial *politesse* or polished indifference, is no adequate set-off. To the man who does not start with the instincts of a gentleman, or who fails to maintain them in full and vigorous exercise, there is danger in the lax moral atmosphere of the great continental cities, notably Vienna; in the light regard in which woman is held, in the absolute subjection in which patients are kept, and in the cold-blooded way in which they are too commonly treated. Again, there is far less of that responsibility to society which exercises a beneficial and restraining influence on young men at home; he needs, in short, to be "an individual of strong character and absolute devotion to a high ideal who returns as clean a man as when he went." All this is truth, and truth as old as medicine or as humanity. The physician falls as far short of his ideal—of the perfection which it should be his not merely to gain but to exercise—on the one hand if he be not a thorough gentleman, as he does on the other, by limiting his professional usefulness, if he has failed to seek, to seize and to apply his opportunities of acquiring knowledge. And knowledge can be gained to real advantage only after an orderly fashion. The advantages which undoubtedly exist "abroad" for the acquisition of special knowledge are comparatively useless to the student who has not learnt how and what to learn at home; he is but a sorry builder who would commence the superstructure without having laid the foundations; and for all practical result, might as well attempt the building of his house from the top to begin with.

"The treatment of snake-bite by the Explosive Cautery" does not refer to that instance of cool courage recently reported from India and noted in our columns, where the possessor of a cobra-bitten finger had the presence of mind to amputate the injured member by the prompt discharge of his gun. It is somewhat less heroic in conception and more tedious in application. A surgeon of the United States Army quartered in the Indian Territory has been curing snake-bites (the particular kind of reptile is not stated) by covering the site of the fang-puncture with gunpowder, igniting it, scarifying the wound, and repeating the operation with more gunpowder burning, finally dressing the wound with a linseed poultice and laudanum. This cautery is said to be "rapid, painless, and thorough, and, if quickly applied, appears

to afford the best chances for recovery." We think that this treatment, or something very like it, has been heard of before, but under a less imposing title. Titles, however, of all kinds, have, undoubtedly, a curative value of their own.

On Tuesday last, at the hospital for epilepsy and paralysis, Regent's-park, a tumour was successfully removed from the substance of the brain. The case is under the care of Dr. Hughes Bennett, who, having diagnosed an encephalic morbid growth of limited size, and localised it in the upper part of the Fissure of Rolando, requested a surgeon to trephine the skull over the suspected region: this was carried out by Mr. Rickman Godlee. A mass of glioma, the size of a walnut, was extracted from under the grey matter of the upper part of the ascending frontal convolution. Up to the present time the patient has progressed favourably in every respect. We shall be interested to learn the future progress of the case.

THE DRUG OF THE DAY.

For the next few weeks the medical journals will no doubt be full of the praises of cocaine as a local anæsthetic. Ophthalmic surgeons are trying it almost universally, and every enterprising practitioner who has to deal with any painful or excitable mucous membrane within reach of the brush or the syringe, will no doubt ere long be following in their wake. Whether cocaine is destined to share the fate of the hundred and one drugs that have gone up like a rocket amidst universal plaudits, and come down like its stick amidst universal neglect, time alone will show. But the character and variety of the evidence before us seems to give fair promise that in a certain number of applications the drug will prove a really valuable addition to our therapeutic resources. So long ago as 1860 Dr. Albert Niemann, of Goslar, who was the first to give the name of cocaine to the alkaloid extracted from the leaves of the *Erythroxylon Coca*, observed that it left a transient numbness upon the tongue when tasted, followed by a sensation of cold. But this observation remained unfruitful until Dr. Charles Koller, incited by the researches of Freud, commenced a series of experiments in Professor Stricker's laboratory at Vienna, on the local action of cocaine on the eyes of animals. His earlier results were communicated somewhat prematurely to the Heidelberg Ophthalmological Congress in September last, in order to secure to himself the credit of priority of discovery. A more complete communication on the subject was read before the Vienna Society of Physicians on October 17th, and a *resumé* of it was published in the *Medical Times* three weeks ago. At the same meeting Dr. Königstein, who had made experiments independently of Dr. Koller, stated that he had obtained practically the same results. These two investigators dealt only with the effect of cocaine on the eye, but at a subsequent meeting of the Vienna Society on October 24th, a report of which we publish in another column, Dr. Jelinek gave an account of his trials of the drug in producing anæsthesia of the pharynx and larynx. These were conducted in the wards and on the patients of Professor v. Schrötter, who together with his colleague Professor Störk bore witness to the ease with which difficult manipulations could be undertaken within the larynx, when previously anæsthetized by means of cocaine. At the same meeting, Dr. Königstein, who had been continuing his experiments on the ophthalmic applications of the drug, stated that he had been able to remove the eyeball of a dog, previously cocainized, without the animal feeling any pain. Meanwhile observers in this country have not been idle, though their researches have been necessarily confined to experiments upon themselves and their patients. Mr. Bader and Mr. Hartridge have made successful trials with cocaine in ophthalmic practice which fully corroborate the claims put forward for it by Dr. Koller; while Dr. Felix Semon and Dr. Prosser James have used it in laryngeal operations, with a success which quite bears out the assertions of Schrötter, Störk and Jelinek. Mr. Lucien Howe, an American ophthalmologist, has also carried out a series of trials on animals and patients, the latter in the clinics of Professors Schöler and Schweigger at Berlin, and has published a concise account of his results in the *Lancet*. While fully recognising that in the first trials of an apparently useful drug the judgment is apt to be warped by ardent enthusiasm, Professor Howe thinks the belief justified "that cocaine is destined to rank as one of the most valuable agents in ophthalmic surgery."

Pure cocaine occurs in the form of colourless transparent prisms, without smell, but with a slight bitter taste. The hydrochlorate or muriate of cocaine, with which most of the experiments have been made, is a white crystalline powder, which is sparingly soluble in water, but readily soluble in alcohol, ether, oil and vaseline. In the case of the eye, a two per cent. aqueous solution of the drug is sufficient for all practical purposes, and acts almost as well as a solution of double that strength; the throat however requires a stronger solution, and Dr. Jelinek recommends a dilute alcoholic solution of ten or twenty per cent. For the former strength the proportion of alcohol to water should be as one to four; for the latter as two to three. When one drop of a four per cent. solution (and the same is true of much weaker solutions) is introduced into the eye, a slight burning sensation is felt. A minute or two later, the cornea and conjunctiva become anæsthetic, and lose all reflex excitability; the finger can be passed over them, and the conjunctiva taken up with the forceps without causing any unpleasant sensations. At the same time there is a feeling of tension in the lids, and the eye seems protruded, as in a case of Graves's disease. The conjunctiva becomes exceedingly pale. These phenomena last for about ten minutes and gradually disappear. In from ten to fifteen minutes the pupil begins to dilate, and there is slight paresis of accommodation. Mydriasis is never present to any great degree, but it lasts for some hours after the anæsthesia has disappeared. Dr. Königstein thinks that these effects are mainly due to the influence of cocaine upon the sympathetic, and the facts that the

vessels generally, including, probably, those of the retina, are contracted by it, that the pupil is dilated and the eye protruded seem to give some warrant for this belief.

With regard to the clinical uses of cocaine, it serves the purpose both of a local anæsthetic and a local anodyne. It may be applied in all cases attended with pain in the eye and photophobia, in painful erosions, phlyctenulæ, injuries, &c., and its power of causing contraction of the vessels seems to indicate it in cases of inflammatory congestion both of the conjunctiva and deeper structures. Professor v Reuss even recommends it as a mydriatic in glaucoma. As a local anæsthetic, preparatory to operation, it has been used in many operations on the conjunctiva and cornea, in removing foreign bodies from the latter and in tattooing cicatrices upon it, in touching it with caustics, &c. As to its reliability in deeper operations, as iridectomy, operations for cataract, for squint, and on the skin of the eyelids, the evidence is conflicting; but Dr. Köller has pointed out the importance of applying it with systematic thoroughness, and probably some of the failures that have been recorded may be traced to a too ineffectual instillation or to a too hasty operation. Dr. Koenigstein indeed states that even the surfaces of the eyelids entirely lose their sensitiveness when cocaine hydrochlorate is applied in the solid form. For most operations it appears to be sufficient to introduce a drop of a two per cent. solution at intervals of two minutes. The maximum effect, according to Mr. Lucien Howe, is reached in fifteen minutes, but earlier according to other observers.

Fewer experiments have been made with regard to the application of cocaine to the larynx, but there can be no doubt that it has considerable power of diminishing the sensibility to pain and controlling reflex excitability. A ten per cent. or twenty per cent. solution is used according to the sensitiveness of the parts and the seriousness of the projected operation. It should be applied three or four times at intervals of ninety seconds, and the anæsthesia lasts for about a quarter of an hour, *i.e.*, quite sufficient for the majority of endo-laryngeal operations. The solution must be applied systematically with a brush or mop to all parts of the pharynx or larynx which the operator is liable to touch in the course of his manipulations, and the epiglottis must therefore be anæsthetized with special care. The most successful case yet placed on record is one in which Dr. Schrötter removed some warts from the larynx of a child of seven, without experiencing any difficulty on the part of the patient. As an anodyne in painful affections of the pharynx and larynx it is possible that cocaine may entirely supersede the use of morphia, and become a valuable means of promoting the euthanasia in those dolorous cases of laryngeal cancer and tuberculosis, the progress of which is perhaps the most trying that the physician has to witness. The drug will also be found useful in facilitating examinations with the laryngoscope, in all cases where there is much reflex irritability of the soft palate and pharynx. In such cases it need only be applied to the parts with which the laryngeal mirror is likely to come into contact.

There are many other functions which cocaine will no doubt be called upon to fulfil, presumably with some measure of success. It might be employed to facilitate difficult catheterism, and by its injection into the bladder to remove the painful contractions met with in obstinate cases of catarrh. It will also probably be applied, with more or less success, in painful affections of the vagina and rectum; and it may be presumed that it would be of use in cases of vaginismus, though its transient effects will of course considerably limit its utility. It would also be worth trying in those incorrigible affections, pruritus ani and pruritus pudendi, and it may possibly be of use in some forms of gastralgia. Whether it would be found efficacious in allaying the painful irritation in appropriate cases of eczema is doubtful, but it will be worth a trial. The only disadvantage connected with it is, as Dr. Jelinek observes, its costliness. It is at present purchasable for about ninepence a grain, and it has been estimated that to secure a painless and easy endo-laryngeal operation costs several shillings. There is at present probably little chance of a diminution in the price, and if, as is quite possible, the market has been interfered with by some enterprising wholesale firm, the cost may run up to a point which would seriously limit the application of the drug. If it should sustain its popularity, however, a powerful impulse will be given to the growth of coca—a plant which is at its best when carefully cultivated—and a new opening will be provided for capital and industry. But it will take long before such operations make any impression on the market price of the alkaloid.

In conclusion we may state our belief that the claims of cocaine to a valuable use in a limited series of applications, though put forward with all the confidence with which new drugs are wont to be ushered in, are supported by much better evidence, both of reason and experience, than those of many of its predecessors which, having been convicted of taking in the profession, have finally met with the treatment deserved by all impostors.

RENAL SURGERY.

A most interesting and instructive debate on Renal Surgery took place at the Royal Medical and Chirurgical Society on Tuesday last. It was raised by the reading of a paper by Mr. Henry Morris, which is elsewhere reported. The successful issue of his case is somewhat lessened by the fact that the ablated kidney was perfectly healthy in structure, although it did contain, embedded in it, a calculus as large as a hazel nut. This fact possesses an equal interest for the physiologist and for the surgeon; and it should make the latter especially careful in recommending the removal of the organ for a disease which cannot be actually diagnosed, as in the present instance, until it would have been too late to remedy the mistake. Mr. Hulke related a case and many others are on record where "well marked symptoms of renal calculus" have been present during life, which after death have been proved to be dependent on other causes by the absolute integrity of the kidneys. One of the speakers regarded Mr. Morris's success as a near

escape from a "surgical calamity;" while another characterised it as "success founded on a misfortune." We must not, however, judge individual cases on general principles; each one must be taken by itself, and in this particular instance, Mr. Morris may be congratulated on the result of the operation, and on the correctness of the diagnosis, which led him to recommend it to his patient. Besides this point, another of more purely surgical interest was raised, viz., the relative merits of the lumbar and the peritonæal methods of operating. Mr. Morris, Mr. Bryant, and Mr. Hulke supported the former; except in special cases, it was *the* incision for by far the large majority of cases. Among other advantages secured, besides sparing the peritonæal cavity, drainage was more easily obtained through the lumbar incision. Mr. Thornton was the chief advocate of the abdominal incision, for which he claimed the advantage that it enabled one to see, and to examine, *both* kidneys carefully with little or no disturbance, thus making sure that a second kidney was present, and in a healthy functional condition. We cannot but feel that there is right on both sides; in the hands of such an exceptionally successful peritonæal surgeon as Mr. Thornton, abdominal nephrectomy no doubt will prove successful, while in the hands of other surgeons less experienced in this mode of operating, the lumbar incision is the one they should adopt in most cases. For the drainage of pyo- and hydro-nephrotic kidneys, lumbar incision appears to have answered admirably for a while, though further measures have subsequently been needful, for the contraction which takes place after the fluids have drained away facilitates the removal of the organ, even should it be determined to proceed by the abdominal method. Sir Spencer Wells agreed with Mr. Thornton that more details are necessary than we at present possess, to enable us to say that *this* or *that* method of operating shall be done. He inclined to the abdominal method for the removal and drainage of large tumours. It is most gratifying, however, to find that surgeons have found such comparatively safe and satisfactory methods of dealing with disease in an organ like the kidney, and we cordially re-echo Dr. George Johnson's congratulatory remarks to those who have worked at the subject. With the sufficiency for healthy existence of a single kidney, clinically as well as experimeneally demonstrated, with the possibility of removing tubercular kidneys, cancerous kidneys, and calculous kidneys, future generations will escape some ills and dangers which but a few years ago rendered the life of many patients intolerable, and brought discredit on medical art.

Trichinosis.—An inspector of meat has been condemned at Halle to a year and a half's imprisonment in consequence of his careless inspection of some pork, in consequence of which ninety persons, inhabiting the village of Strenz-Naundorff, became affected with trichinosis, twelve of the number dying. He had reported the pork in question as free from trichinæ, while he had only examined six of the thirty specimens submitted to him, and these very carelessly, so that a subsequent examination proved that they were infected.

REVIEWS AND NOTICES OF BOOKS.

EUSTACE SMITH ON DISEASE IN CHILDREN.[1]

Few will be found to quarrel with Dr. Eustace Smith for having accepted the responsible task of writing a complete treatise "On Disease in Children." The task, he tells us in his preface, was undertaken not without hesitation, on account of the length of time required to complete it, and especially the knowledge that many manuals of varying merit were already in the field. "Encouraged, however," he continues, "by the reflexion that the author's opportunities for studying these complaints had been abundant, that in the course of more than twenty years he had acquired a mass of valuable material, and that of existing books few dealt with more than a part of the subject, he thought himself justified in believing that a treatise which undertook to discuss the whole subject of disease in early life, and to deal with the matter from a clinical standpoint, might not be without its uses." Few also will be likely to find fault with the New York firm of publishers, at whose invitation the book was written, for having selected an author, already favourably known, both in this and foreign countries, through his "Wasting Diseases of Children," and who could bring the rich experience of twenty years, spent in the study of the diseases of early life, in the out-patient room and wards of one of the largest of our children's hospitals. Surely no one in this country has a greater justification for the task.

There can be but little room for doubt as to the difficulties encountered in writing a really practical treatise on the diseases of children. Few general physicians, in this country at least, have good opportunities of gaining the necessary experience all along the line, say, for instance, on the diseases incident to birth, or are able to take into their wards infants under two years old, or children suffering from scarlet fever, measles or whooping cough. How many have gained what knowledge they possess of the morbid anatomy of infants, from *post-mortems* made in garrets in the slums and back streets, under circumstances anything but favourable to scientific investigation? It is then hardly surprising that much that has been written on diseases of children has passed from book to book, and that the works themselves have been well padded with superfluous matter, which had nothing to do with their real subject. Thus one recent book on diseases of children devotes nearly two pages to describing the various tests for sugar in the urine! No one can accuse the author of the book before us of either lacking the necessary experience for writing a book on diseases of childhood, or of filling his pages with redundant or superfluous matter; for it bears evidence on every page of the practical knowledge and wide experience of the writer, and his possession of the happy faculty of putting his facts clearly and concisely before his readers.

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[1] On Disease in Children. By Eustace Smith, M.D., F.R.C.P., Physician to the East London Children's Hospital, and to the Victoria Park Hospital for Diseases of the Chest. London: J. & A. Churchill.

The introductory chapter with which the book opens deals with the peculiarities of disease as it occurs in children, the methods of examining infants, the pulse, temperature, bathing, therapeutics, &c., and contains much useful information well put and to the point. In Part I. are included, the acute infectious diseases which are perhaps not as fully described as some other groups of disease, yet on the whole their clinical features, diagnosis and treatment are ably dealt with, and the chapter on whooping cough is exceedingly good, the author's favourite treatment for this troublesome affection being a mixture of sulphate of zinc and atropine in the spasmodic stage and alum during the period of decline. He has apparently more faith in atropine than Henoch and some recent writers. In scarlet fever when the temperature is high, he recommends the cold bath (70° F.) the child being kept in till his teeth begin to chatter. We confess that we should not often be tempted to follow this advice on account of the depression of the heart that it is apt to produce, but should certainly prefer the milder measures he refers to later on, namely, sponging with cold water and the wet pack. The paragraph devoted to the morbid anatomy of scarlatinal nephritis is meagre and is apparently founded on Dr. Klein's observations contained in the Report of the Local Government Board for 1876. These observations, which have done duty on several occasions in recent text-books, were made on kidneys taken from patients dying early in the disease, and were examples of the septic or interstitial form which, as Friedlander has shown, is perfectly distinct from the post-scarlatinal form occuring during or at the end of the third week and accompanied by blood, casts, &c., in the urine. In describing the symptoms of nephritis, the author refers to cases which are seized, sometimes suddenly, with dyspnœa and which are often rapidly fatal. These cases he explains as being due to an interstitial œdema of the lungs. We confess to grave doubts as to this explanation being the true one ; we can hardly believe in an œdema which affects the interstitial tissue of the lungs and not the air-passages and alveoli, but think these cases are in reality cases of cardiac failure, the heart being found at the *post-mortem* with both sides dilated and its walls pale and flabby ; the fatal results being brought about by the giving way of an ill-nourished heart, over-worked by the obstruction encountered in driving the blood through the capillaries and arterioles.

Parts II and III include the general and diathetic diseases, the most important chapters being devoted to Rickets, Rheumatism, Scrofula, Tuberculosis and Syphilis. All these subjects are treated in a masterly manner, the description of the last being very full and exhaustive. Part IV is devoted to the Diseases of the Ductless Glands and Blood. The chapter on Hodgkin's disease, illustrated as it is by cases occurring in the author's practice, is extremely interesting and forms an important contribution to this rare and obscure disease. The chapters on Convulsions and Epilepsy are full of practical hints and information based upon the author's experience. Among the various causes given for convulsive seizures in infants, he instances lead-poisoning. He remarks that "infants are very susceptible to the influence of lead given internally. I have long since ceased to make use of this remedy in the treatment of the diarrhœas of young children, as I have several times seen convulsions follow its employment and the attack has seemed to me in some cases to be directly excited by the use of this agent." A case is given which came under the author's care for convulsions at 11 months of age, apparently connected with an attack of erysipelas, but the fits continued after the inflammation had subsided and the child, who remained under observation till 12 years of age, became a confirmed epileptic. The author has much faith in strychnine and belladonna in the treatment of epilepsy, but gives a large dose of the bromides at night. He also speaks well of borax.

Otitis and its consequences, including purulent meningitis, are very fully treated of, as is also tubercular meningitis, but we must demur to the latter part of the following statement, that "in this disease examination by the ophthalmoscope, if it can be managed, shows a congested state of the retinal vessels and discs, and sometimes small bodies like grey granulations *can be seen projecting from the sides of the small retinal arteries.*" Surely the miliary tubercles when visible in the fundus are situated in eth choroid ?

It need hardly be said that, in the chapters on Infantile Atrophy and the disorders of the gastro-intestinal tract, the author shows himself to the greatest advantage. The symptoms, diagnosis and treatment of these affections are described in detail and with the minutest care, yet in simple and forcible language. His directions for the general treatment and dietary of infants under all conditions of health and disease are so complete and full, as to leave nothing to be desired. His prescriptions are always simple and if he has not supplied as rich a formulary as some writers on children's diseases, it is because those given are sufficient for all practical purposes, and have the merit of having stood the test of a long experience. With so much that is excellent, it would be ungenerous to lay much stress on omissions and in a first edition we suppose that printer's errors must not be too severely dealt with. Another edition may probably see a short chapter on mediastinitis, diabetes mellitus and insipidus—which we cannot agree with the author in saying present the same characters in the child as in the adult—and a fuller reference to acute yellow atrophy of the liver, which is hardly so rare in children as the author seems to suppose and has more than once been mistaken for tubercular meningitis. Of printer's errors uncorrected there are not a few, especially with regard to the names of authors, thus, for example, Jaccould, Fagg, Samson, Creighton Browne, Macuna, to say nothing of Pyerian glands, jejunum and ilium and a week mustard poultice. Finally we need hardly say, we have the highest opinion of the value of the book as a practical guide to Disease in Children. Written as it is from a clinical stand-point, faithful in its description of the symptoms of disease, and especially strong in diagnosis and treatment, it will take its place as a thoroughly trustworthy work on the diseases of early life, and one on which the already high reputation of its author may safely rest.

Surgical Emergencies. Twelve lectures, delivered at the University of Leipzig, by Dr. von Lesser. Translated and revised by Dr. Frederick Lyons. Bermingham's Medical Library. New York, 1883, pp. 215.—The work, we are told by the translator, "treats of subjects that have been left untouched by the few short and imperfect works on surgical emergencies that have appeared, and which in general treatises on the surgical art are so encumbered by the mass of other matter that they are inaccessible." On turning to the contents, a little curious as to what these subjects can be, we find a medley of subjects, not a third of which can at all appropriately be discussed under "surgical emergencies" (the equivalent to which, in the original German, is "surgical aid in cases of pressing danger). We do not pretend to know what is generally taught in Leipzig, or in the American schools; but if such subjects as are found in this book are "not included in theoretical lectures on surgery," it is very well that they should be taught in some other way. Such an omission ought at once to be reported at head-quarters. Among the subjects we find—transfusion for loss of blood; impediment to the supply of air, and tracheotomy; obstruction of the bowels; gastrotomy; congenital malformations; effusions to chest and pericardium; injuries to brain and skull; and a chapter on generalities, including first aid to the sick and wounded in war. Surely these subjects have all been adequately discussed in the standard works. The author's expressed consciousness "of the imperfections of this little work" though due in a measure to the lack of the "requisite leisure to put the finishing touches to every detail," spares us the necessity of saying anything else concerning these "surgical emergencies."

Photographing the Larynx; by Thomas R. French, M.D., Brooklyn. (*Archives of Laryngology*, No. 4, 1883.)—Dr. French gives an account of the efforts and difficulties which have attended his attempts to obtain useful photographic representations of the healthy and diseased larynx. Having failed to obtain satisfactory results by bringing the patient to the camera, he succeeded in producing some fairly clear impressions by bringing the camera to the patient, reducing the whole photographic apparatus to the size of a cigar-box, which formed, as it were, the handle of the laryngeal mirror. Although it cannot be said that his results so far are calculated to throw new light upon the subject of laryngeal disease or even adequately to illustrate the knowledge which we already possess, still they may fairly be expected to pave the way to more complete demonstrations in the future.

Lectures on General Nursing; by Eva C. E. Lückes. London: Kegan Paul, Trench and Co., 1884.—This little book contains a dozen lectures addressed by Miss Lückes to the probationers at the London Hospital at the commencement of their training. They deal only with general topics, and Miss Lückes has evidently been at no small pains to avoid trespassing on the ground of the medical man in her lectures. We have read these lectures with a great deal of interest; they are pleasantly written, and so far as we can judge they forestall every question which could suggest itself to the mind of a beginner, though of course they will not teach a person to become a nurse, nor does Miss Lückes suggest in any way that they should take the place of practical experience. The book is sure to be popular.

What to do in Cases of Poisoning; by William Murrell, M.D. Fourth Edition. London: H. K. Lewis, 1884.—This diminutive little volume contains in a condensed space a great deal of information on the subject of poisoning. The fact that in such a short time it should have reached a fourth edition speaks volumes for its popularity, and we need not say anything further in praise of it than that it has evidently supplied a felt want.

ABSTRACTS AND EXTRACTS.

LARYNGOLOGY AND OTOLOGY.

The Use of Cocaine in Dysphagia.—The following striking example of the successful use of cocaine in overcoming painful deglutition was related by Dr. Jelinek in a paper read before the Vienna Society of Physicians, which has been published in full in the *Wiener Medicinishe Wochenscrift* (No. 46), and a *résumé* of which appears in our report of the Society's meeting in another column. The patient, a male aged 45, was suffering from tubercle. There was extensive swelling, and brawny infiltration of the epiglottis, but only moderate dulness and slight crepitation were discoverable at the apex of the right lung. He had been treated as an out-patient in the clinic of laryngology for three months, and iodoform and morphia had been daily blown into his larynx, and he had constantly taken ice. In spite of this treatment he affirmed that for close upon two months he had only been able to swallow milk in the minutest quantities. He was extremely wasted, incapable of work, scarcely able even to walk, and tortured by continuous pain and thirst. Before applying the cocaine solution Dr. Jelinek made him drink some water. He had hardly swallowed a drop before he started up in the greatest pain, while the water returned through his mouth and nose. Dr. Jelinek then carefully painted the lingual and part of the laryngeal surface of the epiglottis, and the valleculæ, with a ten per cent. solution of cocaine, and a minute afterwards told the patient to drink again. The man anxiously took a small mouthful, for a moment looked around in astonishment, and then, to the surprise of all, greedily swallowed the whole glassful at a single draught. Tears of gratitude filled his eyes, and he could scarcely find words to express his thanks. The next day he related that on reaching home, an hour after the application, he had, to the astonishment of his wife, made an excellent meal (the first he had had for two months) without any difficulty, but that soon after the pain reappeared, and three hours after the painting was as bad as ever.

Successful Extirpation of the Thyroid Gland.—Under this title Dr. F. W. Rockwell describes (*New York Medical Journal,*) a case of ablation of the enlarged right lobe, from a female patient, aged 18. The tumour was first noticed at the age of 3 years, and had grown slowly and steadily until September, 1883, when a similar growth appeared on the left side of the trachea. Both tumours then increased rapidly so as to greatly interfere with respiration and deglutition; there were also repeated attacks of vertigo and paroxysmal dyspnœa. Various local and constitutional measures having been employed without benefit, the patient was etherised on February 11th, and the enlarged right lobe carefully enucleated through an incision reaching from the hyoid bone to the sternal notch. Aided by the systematic employment of forci-pressure and of temporary catgut ligatures, the dissection was accomplished with the loss of not more than two ounces of blood. As the dissection had invaded the infra-clavicular space, a button-hole was made below the incision, and a drainage-tube led through this up into the bottom of the wound, and secured with a horsehair suture. Two long catgut sutures, one leading to a large vessel in the isthmus of the gland, the other to the inferior thyroid, were left as guides in case of secondary hæmorrhage, their ends being brought out of the opening alongside the drainage-tube. The wound was irrigated with corrosive sublimate solution (1 in 1,000), closed with horsehair sutures, and covered with a pad of naphthalised sawdust and a gauze bandage. Antiseptic precautions, with the exception of the spray, were adopted throughout the operation, which lasted nearly two hours and a half. The left lobe, as it was but slightly affected, and as its removal would have involved further tedious dissection, was not interfered with. The drainage-tube and all but four of the sutures were removed on the third day. The wound was entirely healed by March 2nd, and on the 14th the patient resumed her duties as domestic servant, the left

lobe being apparently reduced in size since the operation, and there being a complete absence of symptoms of the former trouble. Dr. Rockwell strongly deprecates the method of operating by "attempting as rapidly as possible to reach the pedicle of the growth and secure the principal vessels," in view of the profuse and paralysing hæmorrhage which such an attempt must often incur. From Dr. Paul Liebrecht's work he quotes the following list of recorded operations:—by German, Austrian, and Swiss surgeons, 226; by French, 34; by English, 30; by American, 16; by Italian, 10; by Prussian, 3; by Belgian, 2; by Swedish, 1: giving a total of 322. Of this number 250 were cured, 64 died, 2 were not completed, and in 5 the result was uncertain. Adding to these a series of 34 cases with 5 deaths we reach a grand total of 356 cases, with a mortality of 69, or 19·39 per cent. The actual mortality from causes incident to the operation itself appears not to exceed 8·75 per cent. This estimate nearly agrees with that of Watson, of Edinburgh, who maintains that operations conducted on the plan of careful dissection and enucleation prove fatal in only about seven per cent. Under these circumstances Dr. Rockwell considers the operation of thyroidectomy undeserving of the condemnation which it has received at the hands of most prominent surgical authorities of recent date.

Tracheotomy in Croup.—Dr. Jennings in the *Archives of Pediatrics*, for September, fails to see any distinction between membranous croup and diphtheria; the conditions are identical. He recognises, however, three grades of severity, one in which the disease is confined to the larnyx and trachea, as regards its local manifestations at any rate, another in which the pharyngeal disease is mild, and a third where the pharyngeal or naso-pharyngeal disease is severe and would be dangerous apart from the croup. Only a small percentage of cases, he says, recover after tracheotomy out of this last group, but to our way of thinking such divisions are too artificial. He considers that the general condition of the patient and the tendency of the disease have more influence over the result than the age of the patient. His youngest successful case was an infant of nineteen months. He advises that chloroform should be given, on which point we agree with him, though we cannot agree that the low operation is to be preferred; the reason for this, viz., that one is more likely to get below the membrane, is, in our opinion, wholly insufficient and would certainly not counterbalance the increased difficulty and danger of the operation. In the after-treatment he mentions the use of a feather to remove any membrane or mucus, but does not insist upon its systematic use at the time of the operation, a point, as we believe, of the greatest importance. No tube ought to be put in until the operator has done his best to clear not only the trachea but the larynx of any membrane that may be there; to omit this precaution is to run a great risk of deriving little or no benefit from the operation. With all that he says about keeping the tube clean in the after-treatment we entirely agree, and we have learnt to consider the degree of discolouration of the outer part of the tube as a reliable guide for prognosis; the more speedily the outer part of the tube, that in contact with the wound, becomes blackened the worse the prognosis.

Rhinolithiasis and Pharyngolithiasis.—The patient (*New York Medical Journal*, July 26th) had suffered from chronic catarrh in the head for several years, with periodical attacks of right hemicrania. There was a copious flocculent discharge from the nostrils, great vascularity and thickening of the nasal mucous membrane generally, and marked obstruction of nasal respiration on the right side. Palpation revealed the presence of a hard, grating substance, occupying the floor of the right nasal fossa, which was supposed to be necrosed bone. It being found impossible to dislodge the foreign body anteriorly, it was pushed backwards into the naso-pharynx (the patient having been cautioned not to take a deep breath or to swallow during the manipulation) whence it was speedily spat out. It proved to be a calcareous mass, almost black in colour, and conoidal in shape, measuring 1·5 by 1·25 c.m., and weighing exactly a gramme and a half. Embedded in the mass was a cherry stone; but the patient, a gentleman forty-nine years of age, could not recall any incident of his childhood to account for the presence of the cherry stone. Free nasal respiration was fully restored. The literature of the subject is not extensive. Störk (who had seen but one example), Demarquay, and Ponisot, have written upon it. The determining cause is, almost invariably, the presence of a foreign body which forms a nucleus for the deposition of lime salts. The gouty diathesis may be a predisposing cause. For the expulsion of rhinoliths, sternutatories (Fränkel), a stream of hot water injected through the opposite nostril, strong pressure made through the posterior portion of the nose and throat, extraction by a loop of iron wire which is rotated to tightness upon the stone, and breaking up the concretion by drilling it in various directions by means of the dental engine, have been recommended. In a previous number of the same journal are recorded two instances of what was at first supposed to be glandular tumour of the neck. After the evacuation of pus, a sinus was, in each case, found extending upwards behind the jaw; a probe could be passed for several inches, until its extremity was felt at the outer side of the tonsil, just beneath the mucous membrane. After the discharge of small calcareous masses, the tract finally healed. The course of events was considered to be, old inflammation of the tonsil with calcareous degeneration, and subsequent burrowing of pus to the side of the neck.

Concretion in the External Auditory Meatus.—A lady, aged 45, had suffered from a fœtid discharge from the right ear since an attack of scarlet fever in childhood. The watch was heard on contact only. The meatus was found to be occupied by a firm gritty substance which was at length removed, *en masse*, by means of strong straight forceps used with considerable force. The canal was then seen to be much ulcerated, bathed in pus and blood; there was a perforation in the postero-inferior quadrant of the tympanum. After cleansing the middle ear the watch was audible at five centimetres. The cast of the meatus which had been extracted was about 12 mm. long, dirty grey in colour, closely resembling an ordinary pebble, and of a very offensive odour. It consisted essentially of cretaceous particles deposited around and amongst distinctly recognisable cotton fibres. The patient was positive that cotton wool had not been introduced into the meatus for more than twenty years.—*Boston Medical and Surgical Journal*, August 21st.

Mumps as a Cause of Sudden Deafness.—Dr. Connor, in the *American Journal of Medical Sciences* for October, relates an example of this, and from it and abstracts of thirty-one of the cases which he has collected arrives at the following conclusions: (1) mumps does in some rare cases produce complete deafness; (2) it is usually attended with all the evidences of disease of the labyrinth; (3) these show that it sometimes begins in the cochlea, but more frequently in the semicircular canals; (4) owing to the lack of early observations and treatment it is impossible to say that it is not transmitted through the middle ear from the parotids to the labyrinth; (5) the histories of some of the cases would seem to suggest that such an origin was possible; (6) this possibility renders it very important that every case of deafness during an attack of mumps be at once carefully examined, so as to settle the question; (7) this possibly offers the only hope for the successful treatment of these cases, so as to prevent deafness. Thus, if there be a middle ear disease, we might hope that revulsive and counter-irritant treatment would arrest the disease and save the labyrinth; (8) as to treatment of the labyrinthine disease, nothing has thus far been devised that has produced any satisfactory result.

Earache from Irritation of the Jaws.—Dr. Sexton, of the New York Eye and Ear Infirmary, brought under the notice of his class accounts of several cases that had been treated at the clinic, and in which even when otalgia was very severe no signs of hyperæmia or inflammation had been detected in any part of the ear; and he showed that among the poor earache is in many instances due to dental caries. In other cases of chronic or acute inflammatory processes of the ear, very great exasperation is manifestly produced by these reflex agencies. Very often a cure is effected in these cases by the extraction of

the diseased teeth. Dr. Sexton also alluded to the frequent attendance of females with aural trouble through sympathy of the nerves, as compared with men. "In reference to the treatment of these cases, it was believed that since dentistry had become such a popular business, and dead and diseased teeth had been so carefully retained, especially among better-to-do people, nervous diseases of the head were becoming alarmingly common. The very general custom of wearing false teeth attached to vulcanite rubber, celluloid, and other plates was also an evil of vast proportions. Indeed, he sometimes thought that the evil done through ill-advised dentistry was greater than the possible good arising from the work of the more capable dentists." —*New York Medical Journal*, October 4.

Chromic Acid in Papilloma of the Larynx.—Dr. Jarvis recommends chromic trioxide as a local application to these growths as being safe, reliable, effectual, and self-limited in its action; its use is not necessarily attended with pain or spasm. It is best applied by means of a special instrument, consisting of a tube provided with a trigger and a spring, the force of which can be accurately regulated, in order to limit the action of the caustic to the growth to be removed, and to surprise the larynx. Since, according to Mackenzie, 67 per cent. of the tumours of the larynx are papillomata, and Cohen has found forty-eight out of sixty-six tumours of this character, the field of action open to this agent appears to be an extensive one.—*Boston Medical and Surgical Journal.*

Complete Paralysis of Left Vocal Chord in Extreme Abduction Resulting from an Incised Wound of the Neck.—The wound, which was suicidal, and was made from behind forwards, severed the sterno-cleido-mastoid muscle, and was deepest just in the track of the pneumo-gastric nerve. There had been complete aphonia ever since the injury (which was inflicted in November, 1883); the left vocal band was found immovable in a position of extreme abduction, while the right band was normal. In forced inspiration the latter did not go out so far as the left one constantly remained. No explanation is given as to the method in which the injury operated.—*Boston Medical and Surgical Journal.*

Unilateral Paralysis of Laryngeal Abductors.—At the Annual Congress of the American Laryngological Association, Dr. Delavan related the case of a patient, æt. 69, who suffered from cerebral hæmorrhage with paralysis in 1877; although all the other paralytic troubles had long since disappeared, the unilateral paralysis of the abductors still persisted. According to Nothnagel (Ziemssen's Cyclopædia) this condition is exceedingly rare. A similar case, in which the unilateral paralysis was the only injury resulting from falling down stairs and striking the head, was also mentioned.—*Boston Medical and Surgical Journal.*

The Vapour of Glycerine in Obstinate Cough.—Professor Trastor, of Nantes, employs the vapour of glycerine with great advantage when a cough becomes distressing or fatiguing. Fifty or sixty grammes are placed in a porcelain capsule and evaporated over a spirit lamp. An enormous amount of vapour is disengaged. In phthisis and various other affections much relief is gained in this way.—*Revue Médicale.*

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 25th, 1884.

George Johnson, M.D., F.R.S., President, in the Chair.

A Successful Case of Lumbar Nephrectomy for Renal Calculus.

Mr. Henry Morris read a paper on this subject, of which the following is an abstract:—A labourer, aged 35, who had suffered from well-marked symptoms of renal calculus of the right side since the end of 1881, and had been under the care of Dr. Douglas Powell at the Middlesex Hospital, came again under treatment in October, 1883. In November, 1882, Mr. Morris had explored his kidney digitally and with the probing needle, but did not detect the stone. On October 24th, 1883, the exploration was repeated, but again failing, the kidney was removed through the lumbar incision. The patient made an uninterrupted recovery, and at the present time is at hard work as a charcoal burner, "is as well as ever he was in his life, and able to work without the slightest inconvenience." The kidney excised was of normal size and appearance, and its secreting structure was found by Dr. Coupland on microscopical examination to be quite healthy. The organ, however, was harder and tougher than usual, and contained a rounded rough calculus about the size of a marble. Careful daily examination was made of the urine by Mr. Paul both before the nephrectomy and for more than six weeks after the operation, so that the rapidity and power with which one kidney can take on the whole of the excretory function is shown in a table which forms part of the paper. The results are equivalent to those of a simple physiological experiment, because a healthy kidney (so far as its excreting substance went) was removed, and a healthy one was left behind. A comparison was made between the lumbar and the peritonæal methods of nephrectomy. The author endeavoured to show that the arguments which have been used in favour of the peritonæal operations are more theoretical than practical, and that, if logically followed out, they are likely to lead to pernicious results. The conclusion arrived at was, that lumbar nephrectomy, as a rule, is the better operation, though there are exceptional circumstsnces and certain diseased conditions in which the abdominal method is preferable. In nephrolithotomy the lumbar incision, and that only, ought to be employed. In judging of the condition of the opposite kidney to the one to be removed, we have to depend upon the general symptoms of the case and upon the amount of urea daily excreted. But it is not correct to infer that the kidneys are diseased because they excrete a daily average quantity of urea *even less than half the standard quantity.* Persons who have long been living an invalid life, and who have lost much flesh, may with perfectly sound kidneys eliminate not more than from ·8 to 1·8 per cent. of urea, and only pass from 30 to 35 ounces of urine a-day.

The President, in inviting discussion, congratulated surgeons on the successful manner in which they now treated these diseases of the kidneys; it made physicians envious to see them thus radically deal with disease.

Mr. Bryant said it was pleasant to hear the President speak so encouragingly of these cases. The paper demonstrated in the first place an interesting physiological detail, that one kidney sufficed for the purposes of both, and could do all that was necessary to health. In the second place, the difficulty in diagnosing calculus, even after prodding with a needle, and manipulation was shown; a small calculus was so lost and so buried, that it escaped detection even when present. This should teach that, in all cases, operations could at best but be considered exploratory. In the present case it was regretable that the stone could not be found, for then the kidney itself would not have been removed. In all cases the kidney should be explored through the pelvis, and a careful search made before the organ was removed. He considered the lumbar operation as the proper one for calculus; probably in the case to-night, the stone could not have been detected even had the abdomen been opened. Speaking generally, he was in favour of the lumbar as against the abdominal incision, believing that surgeons would get all they required from the former. In cases of large tumour it would be different: these peritonæal operations had been discovered, so to speak, accidentally, while surgeons were looking for ovarian tumours; nevertheless, we must be grateful. In pyonephrosis and hydronephrosis, drainage through the loin led to contraction and withering of the sac, with great relief, and at worst a discharging sinus in the loin; under such circumstances he questioned whether the more extensive and more serious operation through the abdomen were warranted.

Mr. Hulke, like Mr. Bryant, had never removed a

kidney, but had cut into many. Both his own clinical experience and his reading alike convinced him that the lumbar incision was the better, and especially so for drainage. Unless very large, even when it was desirable to cut the tumour, the lumbar incision sufficed; and in cases where there was pus or secretion in the perirenal tissue the lumbar incision was by far the better. In a few exceptional cases the abdominal incision could be adopted. In reference to diagnosis, he referred to a case in which calculus had been diagnosed by several leading men, and on one occasion, in consequence of the severity of the symptoms, it had been decided to operate, and all the preparations were complete when the patient, a physician, finally declined to submit; a while afterwards he died of some other disorder, and on making a *post-mortem* examination not the least sign of a calculus or any other disease was found. He also related a case of perirenal abscess, which discharged a quantity of pus through the loin, the patient recovering. Any attempt, he thought, to drain such a cavity through the abdomen would have been most hazardous.

Mr. Thornton, as regarded the case under discussion, joined his congratulations to those of other speakers, but at the same time he could not help feeling that Mr. Morris had just escaped a surgical calamity. The removal of a healthy kidney was not a light matter; in not cutting into the organ before removing it he had neglected an advantage which he himself claimed for the lumbar operation. As to the ureter, he thought there was nothing to fear in the majority of cases. Like the ovarian pedicle, it withered; if inclined to slough, one place was as good as another. Coming to the other question raised, the abdominal operation as against the lumbar, he felt he might be in a minority of one. At present, however, there were not sufficient details on which to arbitrate; it was impossible to lay down hard and fast lines. In one successful operation by the abdominal method he had felt the stone quite easily, and then made an opening through the loin at the most convenient spot, through which the calculus was removed. Moreover, he had examined the opposite kidney, had made sure of its presence and of its healthy condition. As to the danger to the peritonæum, he personally, had no fear of it; he would fear to wound many other tissues of the body more than the peritonæum, which was remarkably tolerant when properly treated. He had drained kidneys through the loin, but subsequent operation, in his experience, was necessary.

Mr. Barwell referred to a case of loose kidney, which he had operated on through the loin.

Mr. Larkins referred to a paper which he had read while a student before the Guy's Physical Society, in 1869, on some experiments made on rabbits, which showed that they recovered from the operation and remained well after extirpation of the kidney.

Sir Spencer Wells was a little surprised that the value of diagnosis by means of the hand in the rectum had not been referred to. He agreed that it was impossible as yet to say which operation was the right one; for large tumours and for draining he thought the abdominal incision the better.

Mr. Macnamara asked Sir Spencer whether diagnosis had ever been successfully made this way.

Sir Spencer Wells replied that among other surgeons he had himself done so.

Mr. Baker was about to have asked the same question. He had heard rumours of injury and dangers to the peritonæal cavity. He rather inclined to agree with Mr. Thornton in his views on the operation. He enquired as to the value of the plan of enucleating the kidney from its capsule; he had himself tried the plan which he thought offered certain advantages. With regard to drainage, all the cases in which he had operated, had finally required the major operation subsequently. It seemed as if one kidney sufficed for the needs of the body; perhaps, however, this was only in health; he had had a case in which the patient got on well while in health, but having been attacked by some febrile condition, death rapidly supervened.

Mr. Barker thought it made all the difference whether a healthy kidney was incised through the loin or a diseased one; in the former case it was probable that a sinus would continue to discharge; while, owing to the contraction which takes place in a diseased one, a sinus did not remain long open.

Mr. Morris replied.

The meeting (which had been specially prolonged) then adjourned.

A number of very interesting pathological specimenss illustrating surgical disease of the kidneys, from the Museum, of Guy's and the Middlesex Hospitals were shown.

MEDICAL SOCIETY OF LONDON.

Monday, Nov. 24th, 1884.

Arthur Durham, F.R.C.S., President, in the Chair.

Anæsthetics and their Administration.

Mr. Woodhouse Braine contributed a paper on the above subject. He began by contrasting the relative merits of the various anæsthetic agents now in vogue, saying that we had yet to discover an anæsthetic which was absolutely safe: nevertheless, he thought it incumbent upon us to select some agents in preference to others for the reason that they were safer than others. Anæsthetics might be divided into two classes—(1) Those which produced death through the lungs as well as through the heart; this class included chloroform, bichloride of methylene, dichloride of ethidene, and many others of the chlorine series; (2) Those which produced death through the lungs alone, the heart's action continuing for some time after respiration had quite ceased; this class included ether and nitrous oxide. In the fatal cases under chloroform death was usually instantaneous in the great majority of cases, and began at the heart; when the heart once thoroughly stopped, nothing served to ward off death, while, when respiration stopped, even for a minute or two, with artificial respiration there were good chances of recovery. In choosing an anæsthetic there were three factors to be considered—(1) The nature of the operation; (2) The amount of insensibility necessary; (3) The length of time during which insensibility had to be kept up. In ovariotomy, for instance, we frequently gave bichloride of methylene; for after the first incision there was little if any pain, and the smallest degree of anæsthesia sufficed. Of all anæsthetic agents, the quickest and safest, but the most difficult to administer really well, was nitrous oxide; to get its full effect it should be administered pure, all air being rigidly excluded: deep snoring and an insensitive conjunctiva were the best signs of insensibility. Pregnant and suckling women took gas without any deleterious consequences; children, even those who suffered from chorea, or epilepsy, took it well; great age was no bar, he having given it on one occasion to a woman aged 94. From experiments made on himself, he had learnt that just before the loss and the return of consciousness, the hearing power was greatly intensified, and he warned surgeons to be careful in their remarks, and advised the room to be kept as quite as possible. As regarded ether, he said the chief reason against its making its way lay in the difficulty of its administration; in unpractised hands there was generally considerable struggling. His usual practice was to induce complete insensibility by means of nitrous oxide, and then to quickly change the face piece for the Ormsby or Dublin inhaler. This ought to be done very rapidly, so that the nitrous oxide which the patient gets rid of by the first subsequent expiration, passes through the sponge and becomes charged with ether for the first inspiration. The cold produced by the rapid evaporation of the ether is often very great, and the sponge becomes frozen into a solid mass, which gives off very little ether vapour. To prevent this the inhaler should be warmed, or the sponge should be wrung out in hot water. The ether then comes off rapidly, very little is required, and, moreover, the patient is quickly under its influence. After complete anæsthesia has been produced in this manner, the sponge may be removed, and the insensibility may be prolonged by allowing the patient to breathe from the india-rubber bag, admitting fresh air only as required.

Ether has one great advantage over those anæsthetics which depress the heart's action; for the vessels bleed so freely as the operation proceeds that the surgeon is obliged to tie a much larger number, hence there is seldom secondary or even any subsequent hæmorrhage to interfere with healing. Chloroform tends to produce syncope; whenever this appeared imminent a few whiffs of nitrite of amyl furnished the quickest means of restoring the heart's action. The anæsthetist besides this drug ought always to be provided with a pair of tongue forceps, and the instruments necessary for tracheotomy. Among the more general points referred to, Mr. Braine spoke of the sickness which follows anæsthetics; that after ether was often caused by large quantities of flatus, and generally took place suddenly and forcibly, that after chloroform was preceded by more faintness and nausea, and took place more quietly. Hiccough was best relieved by a cup of tea without either milk or sugar. Although a great advocate for having the stomach empty, he never would allow a patient to become faint for want of food. If the operation was arranged for about 9 a.m. no food should be taken, unless the patient was *in the habit* of having a small cup of cocoa or something, then this might be allowed, for its privation might cause the patient to feel faint. It was a bad practice to give the breakfast before the usual time, for the stomach, not accustomed to it, failed to digest the unusually early meal. It was always well to examine the organs of respiration and circulation; this examination allowed you to get on good terms with the patient, and it gave him confidence, or, in other words, additional cardiac power. Artificial teeth, especially small plates, should always be removed; whole sets were less likely to be swallowed. It was best to ask the patient to open his mouth, and to look for oneself. To avoid after-sickness, it was very essential that the patient should not be shaken when being lifted from the operating table to the bed. Except in cases of special debility, the nurse should be instructed not to give any kind of food for three hours. Warm food, he said, kept up the nausea; hence it was better to give all nutriment quite cold until the following morning. He summed up his remarks as follows:—It was well to avoid all anæsthetics which tend to depress the heart's action. (2) For short operations nitrous oxide is the best agent. (3) For longer operations, except where it is desirable to avoid hæmorrhage, as in some eye operations, or when the cautery was used, ether answers perfectly. (4) The best time for operating is the early morning. (5) The nasal tubes are of little use. (6) Nitrite of amyl is the best cardiac stimulant.

SOCIETY OF PHYSICIANS OF VIENNA.[1]

FRIDAY, OCTOBER 24TH, 1884.

PROFESSOR BILLROTH in the Chair.

The Use of Cocaine in Throat Affections.

AFTER cases of interest had been exhibited by Professor Billroth and Dr. Königstein, Dr. JELINEK called the attention of the Society to the Use of Cocaine as a local Anæsthetic and Anodyne, when applied to the Mucous Membrane of the Pharynx and Larynx. He first briefly reviewed the various methods hitherto employed to diminish the sensibility of the pharynx and larynx, viz., the painting with solutions of morphia, advocated by Türck, the ether spray of Rossbach, painting with tannin, bromide of potash, &c. Türck's method, as modified by Schrötter, had found numerous adherents, and was very commonly used. The pharynx and larynx were painted twelve times with chloroform, and after the lapse of an hour an equal number of times with a concentrated solution of morphia. This was done on the evening preceding the day of operation. The next morning the sensibility of the larynx was found so diminished that operations could be performed without distress. The disadvantages of this method were obvious. The preparation lasted twelve hours, and the patient had to be watched during the whole night, as there was a possibility of narcotism. Further, the painting with chloroform caused disagreeable sensations to the patient. Dr. Jelinek now employed the hydrochlorate of cocaine to produce anæsthesia of the pharynx and larynx. This drug seemed to have been long known to French physicians; Fauvel mentioned it as a tensor of the vocal cords. Its practical employment as an anæsthetic and anodyne, however, had hitherto, strange to say, been unknown. Hydrochlorate of cocaine was a crystalline powder which dissolved easily in ether and alcohol, but less easily in water, and which had a neutral reaction. When the powder itself or a concentrated solution was applied to a mucous membrane it was followed by diminished sensibility to touch and to heat, comparative insensibility to pain, and diminution of reflex excitability. When applied on the mucous membrane of the tongue the sense of taste became impaired. For practical purposes the power possessed by cocaine of lessening sensibility to pain and controlling reflex excitability were most important. At the clinic of Professor v. Schrötter, Dr. Jelinek had had a good opportunity of making experiments on the action of cocaine when applied to the larynx. He used dilute alcoholic solutions of ten per cent. and twenty per cent. which were at first clear, but which after some days became turbid, owing to the alcohol evaporating, and some of the cocaine being precipitated. It then became necessary to add a few drops of alcohol. Hydrochloric acid should not be used in preparing the solution, and it should not be filtered. In slight operations, where little reflex action and only moderate pain were present, the ten per cent. solution sufficed; but where the larynx had to be rendered anæsthetic for more serious operations the twenty per cent. solution must be employed. To the pharynx the solution should be applied by means of a little mop; to the larynx by means of a thick soft camel's hair pencil. The application must be repeated every minute and a half, if necessary. The anæsthesia lasted ordinarily from ten to fifteen minutes, and disappeared totally after twenty minutes. All those parts with which an instrument might come into contact—the margin, the lingual and laryngeal surface of the epiglottis, the palleculæ, and so on, must be painted, as reflexes might occur wherever a part had remained untouched by the solution. Dr. Jelinek then mentioned some cases in which polypi and papillomata had been removed from the larynx by Professor v. Schrötter with considerable success, after making use of his method. The author next passed on to consider the use of cocaine as an anodyne, and drew attention to cases of tuberculous perichondritis, in which deglutition was so painful that the patients refused food, and were in danger of perishing from inanition, though the process in the lungs was not very advanced. The application of hydrochlorate of cocaine rendered good service to these patients, and in similar cases equally good results had been obtained. The diminution of pain sometimes lasted for three hours; it was necessary to seek out all the implicated spots, and to paint them thoroughly. In these cases only aqueous solutions had been used. He further pointed out that cocaine diminished the swelling of a mucous membrane where present, lessened its secretions, and, according to Fauvel, tightened the vocal cords. No local or general disturbance had been observed after its employment. It only had one disagreeable quality, namely, that 1 gramme (15 grains) of it cost from 5 to 6 florins (from 9 to 11 shillings).

Professor v. SCHRÖTTER said that Professor Störk and he had succeeded in preparing patients for operation by means of the above treatment in from three to eight days, so that they became quite indifferent to endolaryngeal manipulations. He added that Türck's method of producing local anæsthesia of the larynx had unjustly obtained the name of "Schrötter's method." This was not right, as he had only modified the method. He attached great importance to the employment of cocaine. The method of Türck, however, was not dangerous, it was only very disagreeable for the patients. He had that very day removed papillomata from the larynx of a child aged 7 years, after having painted it a short time before with cocaine hydrochlorate. The child did not feel anything, the manipulations were quite easy, and there was no trouble on the part of the patient.

[1] Reported by Our Vienna Correspondent.

The use of cocaine was quite free from danger, and it would totally supersede the local application of morphia. Pain was also removed by treatment with cocaine, and though morphia inhalations did good service in cases of perichondritis, the effect of cocaine was still better, according to the statement of the patients. The experiments with cocaine were not yet concluded, but, judging from what he had seen hitherto, he thought it a very valuable drug, and could promise a good future to it.

Professor STÖRK remarked that he had employed a twenty per cent. solution of hydrochlorate of cocaine in order to remove a polypus of the vocal cord, and as to its efficiency he could in general confirm the communications which had been made on this subject. The local sensibility was diminished, but the reflex excitability was not entirely removed.

In connection with this discussion, Dr. KÖNIGSTEIN said that he had performed enucleation of the eyeball on a dog after the application of cocaine, and the animal did not feel anything of the operation. First he rendered the conjunctiva anæsthetic, then he made an incision, and injected into Tenon's capsule a one per cent. solution of cocaine, after which he completed the operation without any trouble.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 6TH, 1884.

H. POWER, Esq., M.B., Lond., F.R.C.S., Vice-President, in the Chair.

CLINICAL EVENING.

Movable Kidney.

DR. SYDNEY PHILLIPS showed a boy, aged 9, presenting a lobulated, elastic mass situated chiefly in the umbilical and left lumbar regious; the upper edge of the mass reaching half-way between ensiform cartilage and umbilicus, the lower edge half-way between the latter and Poupart's ligament. The tumour could be pushed downwards as far as Poupart's ligament, and was movable to a less exteut iu other directions. There was a marked hollowness and concavity in its left lumbar aspect. The tumour had been noticed after an attack of whooping-cough, when the boy was seven months old; it had gradually increased from the size of a pigeon's egg to its present dimensions, but for the last two years had not altered. During a period of observation of eighteen months his urine had been normal and there had never been hæmaturia. The boy's health had been fair, but he had suffered paroxysmal attacks of pain about the tumour. Dr. Phillips believed the tumour to be a displaced kidney which had undergone some change, possibly cystic, accounting for its increased size. It was not a double kidney as the right kidney could be felt in the normal position.

Dr. STEPHEN MACKENZIE briefly discussed the case and pointed out that the tumour was not typically kidney-shaped, and that the abdominal walls were not abnormally lax; these were important reasons for doubting that the case was one of movable kidney.

Dr. CHAMPNEYS considered that diagnosis in a case such as this should be based upon a process of exclusion. Had the patient been a female the existence of a dermoid cyst rising from the pelvis might have been strongly suspected. Against the hypothesis that this was an instance of movable kidney the following facts might be urged:—(1) as pointed out by Landau the subjects were generally adults; (2) they were most commonly women; (3) in a large majority of cases a movable kidney was situated on the right side. The supposition of malignant disease was set aside by the long history of the tumour which was first observed at the age of seven months. The complication of strangulation was negatived by the observation that for a long period the size had remained constant. With regard to the mobility of the mass, Dr. Champneys had noticed that the centre of movement appeared to coincide with the summit of the iliac crest, in other words with a joint perceptibly below the axis of the normal kidney. The final inference remained that this was a solitary and therefore a hypertrophied kidney, and that it was slightly displaced, although not an instance of the malposition known as horse-shoe kidney which was the result of a congenital blending of both organs.

Mr. GANT, in commenting upon the case, gave his reasons for believing that its nature was an open question of diagnosis.

Mr. JOHN MORGAN remarked that he had not long ago had a boy under his care who presented a very similar tumour in the abdomen. The patient remained under observation for more than a year. The swelling, which was freely movable, lay to the left of the umbilicus, was round, smooth, painless, and did not increase in size while under observation. In the case before the Society he thought that the size of the swelling, the absence of any abnormal condition in the urine, together with the great rarity of such a condition in boys, were against the probability of this being a movable kidney. On the contrary, he fancied that fluctuation could be detected on deep pressure, and if so might it not more probably be some congenital cyst of the peritonæum or of some other abdominal organ?

Dr. MAIR referred to several cases of movable kidney which had come under his observation. Judging from his experience of these cases he hesitated to admit that the slight movement which he had detected in the mass was sufficient to justify this diagnosis. His examination of the patient rather led him to believe that the tumour was at some point or other fixed.

Two Cases of Lichen Planus in which the Eruption was Distributed along the Course of Cutaneous Nerves, with Remarks on the Influence of the Nervous System in the Disposition of Cutaneous Eruptions.

This formed the subject of a paper by Dr. STEPHEN MACKENZIE. The author narrated the case of a woman in whom Lichen planus was arranged round one-half of the back and abdomen in belt form, like Herpes zoster, for which the eruption had been mistaken. Later the eruption became generalised. There was intense itching of the skin, and white patches on the buccal mucous membrane. In the second case, also that of a woman, the eruption was confined to a track down the inside of one arm corresponding with the internal cutaneous and ulnar nerves, with intense itching in the area of the eruption. Dr. Mackenzie proceeded to point out that these cases were deviations from the ordinary type of Lichen planus, which was characterised usually by marked symmetry. He next drew attention to other cutaneous diseases which were distributed along the course of nerves, as Herpes zoster, morphœa, neuropathic papillomata, purpura, &c. He next considered the anatomical evidence explaining such neurotic eruptions, and by the kindness of Mr. McCarthy, was able to show to the members a microscopical specimen of the spinal ganglia of a case of retroceding zona. He then dealt with the significance of such eruptions, indicating his belief that the local lesions of the nervous centres merely determined the localised eruption, and that there was some other factor which decided its nature. He instanced some observations of Dr. Moxon, in which the local development of tubercle, cancer and pleurisy, were determined by local affections of nervous centres. He then passed in review the circumstances which occasioned symmetry of eruptions, showing that local tissue peculiarities could not be left out of consideration, and that asymmetry rather than symmetry was characteristic of eruptions directly due to local diseases of the nervous system. He thought that symmetrical eruptions like Lichen planus and psoriasis were due to some general nerve influence, or diathesis, the symmetry in such diseases being in part due to local tissue influences; and that cases such as he had narrated did not support the view that the ordinary symmetrical distribution was the direct outcome of nervous influence.

Dr. MALCOLM MORRIS said that cases of localised Lichen planus, like zoster, were very rare. He referred to a communication in the *New York Medical Record* by Dr. Robinson, in which Lichen planus and Lichen ruber were described as two diseases, the former being the most localised. Mr. Morris thought on the whole that Lichen planus was probably neurotic and not a blood disease, as it often developed in persons who were severely depressed. He

mentioned the case of a lady, aged 50, whose husband died suddenly abroad. On her return to England she was, after a few days, attacked with general Lichen planus, accompanied with intense irritation and other nervous symptoms. She gradually recovered as the depression passed off, under the influence of arsenic and complete rest. This pointed to the disease being a nerve storm like megrim, with cutaneous manifestations.

Dr. COLCOTT FOX remarked that modern researches had accumulated a mass of evidence to show that the nervous system played a very prominent part in the evolutions of skin diseases, either directly through trophic nerves or through the agency of the vaso-motor system. From anatomical considerations it was evident that if a morbid influence was exercised through the vaso-motor nerves, the areas occupied by the eruptions would correspond with the areas of blood supply. It was difficult to resist the conclusion that the corymbose patches of eruption seen in a great many affections of the skin were thus caused. It was still more impossible to resist the conclusion that the patches of shingles were developed on the trajectory of a nerve, and indeed this had been placed on sure ground. From the mass of evidence to hand he might point to the evidence of nævi, both blood-vascular and papillary, in relation to nerve distribution, and this brought him to speak of continuous lines or narrow bands of eruption which were usually ascribed to nerve influence though more difficult to account for at first sight. Such bands he had described in 1880 as occurring in slight asymmetrical cases of Lichen planus, and these were now confirmed by Dr. Mackenzie. As to the ætiology of Lichen planus, he had been schooled in the theory that it was a neurosis, from the constitutional symptoms present, and his experience led him more and more to adopt this theory.

In reply Dr. STEPHEN MACKENZIE said that he quite agreed with Dr. Colcott Fox as to the neurotic nature of Lichen planus as had been so well pointed out by the late Dr. Tilbury Fox. The gist of his paper had been to show that the affection of the nervous system was of a general kind, but that the distribution of the eruption was not so much determined by nervous agency as was supposed. Where the direct influence of the nervous system was undoubted, the eruption tended to have an unusual or unsymmetrical distribution.

Cases of Painful Mamma in Young Girls.

By Mr. JOHN H. MORGAN. A well made girl, aged 11½, had suffered from severe pain in the left mamma for some time, which had become more acute lately. The gland was very little enlarged, and showed no symptoms of inflammation but was the seat of great pain and was very tender to the touch. The pain was continuous, with exacerbations. There was no history of injury, the catamenia had not appeared. Shortly afterwards the right mamma became affected in an exactly identical manner. Neither local nor general treatment afforded relief. After some weeks the pain began to intermit, and at length gradually disappeared.

Notes were read of six other similar cases, in five of which the left and in one the right mamma was the seat of pain. The children were between 10½ and 12 years old; none had menstruated, and in none was treatment either local or constitutional of much benefit. It was suggested that this pain was not due to inflammation, but to some developmental changes in the gland, in sympathy with changes in the ovaries and in the organs of generation.

Mr. H. POWER, alluding to a statement by the author, remarked that such cases had not remained unnoticed in medical literature, and referred to an article by Erb, dealing with this subject, in a volume of Ziemmsen's Cyclopædia, which he had translated.

Mr. GANT, corroborating Mr. Power's observations, alluded to a chapter in his own work on Surgery. This painful affection presented four well marked characters (1) hyperæsthesia; (2) wide distribution; (3) superficial nature of the pain, and (4) paroxysmal exacerbation. It might be looked upon as a pseudo-mastitis. In many cases it was probably the outcome of depraved habits. He also referred to the subject of irritable breast in the adult.

Dr. CLEVELAND, believing in the neuralgic character of the pain suggested that the hypodermic use of morphia might be expected to yield the same relief as in other neuralgiæ.

A New Antiseptic Vaporiser.

Mr. R. F. BENHAM stated that some antiseptic agents, carbolic acid foremost, did not become converted into vapour at ordinary temperatures; hence the objections to most inhalers. The apparatus exhibited, which was of small size and inexpensive, consisted of a closed chamber, heated by a spirit lamp, for the reception of water and of the disinfectant, provided at its upper part with a vent-hole of only sufficient size to allow the steam to escape under some pressure. On the principle of Hero's engine, a narrow horizontal tube, open at both ends, and at its middle point, and balanced on a pin projecting from the top of the boiler, was made to revolve with considerable rapidity by the steam issuing from its extremities and became the means of diffusing steam and antiseptic in a state of perfect mixture. This invention was originally brought out by Mr. Benham twenty years ago, and as a mechanical toy enjoyed considerable popularity, but had never been brought before the notice of, or utilised by, the profession, although, on a larger scale, it had been employed to disinfect and to perfume the Agricultural Hall.

Dr. CLEVELAND submitted that he could discover no essential difference between the vaporiser and Maw's Eucalyptus Globe.

Mr. BENHAM replied that the latter instrument being of recent date he could lay claim to undoubted priority of invention.

Improved Surgical Syringe.

Mr. BENHAM exhibited a syringe which differed from ordinary patterns mainly in the addition, in lieu of the nozzle, of a coned plug terminating in a transverse tube open at both ends for connection with india-rubber tubing through which the flow was regulated by a T tap. By this means the fluid might be aspirated or driven in alternating directions with great ease. The apertures of inlet and outlet being in a line instead of at right angles as in the ordinary stomach pump, it was impossible for one aperture to be open before the other had been completely closed. Loss of time in syringing was avoided, inasmuch as even when a small nozzle was used the flow of fluid in refilling the syringe was not impeded thereby; the nozzle, once *in situ*, did not require to be shifted during the whole operation; the absence of any valve obviated the danger of obstruction or corrosion; and lastly, the attachments might be readily applied to any of the existing syringes by adapting instead of their nozzles a screw of the same thread as that of the plug, whilst other fittings, such as a cannula and trocar, could be added at will.

Retroversion of the Gravid Uterus.

Dr. AMAND ROUTH read details of five cases of retroversion of the gravid uterus, two of which, when first seen, were complicated with resulting retentions of urine; the bladder in these cases exactly simulating the objective signs of unilocular ovarian cyst. Seventy ounces of urine in the one case, and fifty ounces in the other, were drawn off. Reduction was easily effected in all the cases without subsequent abortion occurring, and with immediate relief of the symptoms of backache, nausea, and frequent micturitions. The importance of early diagnosis and treatment was insisted upon.

Dr. CHAMPNEYS remarked that whereas in general outline cases such as those described were made up of combined flexion and impaction, none of the symptoms special to flexion or to impaction were present. Sometimes considerable difficulty was experienced in replacing the uterus. In such cases the pressure of water or of air was a valuable means of treatment. Dr. Champneys to a case recently seen by him, in which an indiarubber bag was introduced into the rectum and distended with water under a pressure of four feet, with excellent results.

Enlarged Prostate in a Dog.

Mr. T. W. CARMALT JONES not being present to read his paper, Mr. J. E. LANE exhibited the specimen and read a few notes on the case.

GENERAL CORRESPONDENCE.

SHIP-SURGEONS.

[To the Editor of the Medical Times.]

SIR,—Looking over the back numbers of the *Medical Times* for this year, I have just read your article commenting upon Dr. Domett Stone's letter to the *Times*, of last December, upon ship surgeons.

May I be allowed to make a few comments upon the subject though so long a time has elapsed since it was mooted. It is unnecessary to say I agree in the main with all that was said, but I think the question will bear looking at from somewhat another point of view. In the Royal Mail Steam Packet Company, as in others, the surgeon's pay is scandalously low, being the same as that of the steward and cook, and not only is the pay extremely low but surgeons of this company, like those of the Peninsular and Oriental, are compelled to insure their lives for a certain amount in an Insurance Company whose premium is absurdly high and whose directors are, curiously, many of them directors of the Peninsular and Oriental and Royal Mail Companies. This may, however, be only a coincidence. And the result of this low pay is deplorable; the service is simply made a convenience of by junior practitioners to enable them to make a voyage or two before settling down in practice, very few ever entering it with a view of remaining in it any length of time. This is of course extremely pleasant as far as they are concerned. They obtain an appointment, make one or two voyages, and then, being tied down by no specified length of service, they leave when they please. But let this be looked at from another light. How many of these men have ever seen a case of yellow fever, of bilious remittent fever, of dengue, of beriberi, of dysentery or of cholera? And grant that they may be able to diagnose these diseases by their book knowledge, would it not be the height of absurdity to say their treatment would be as successful as that of some of their senior colleagues who have seen and treated many such cases?

And again. How many of these men know anything of naval hygiene? Many perhaps have studied or passed an examination in public health on shore, but that will not avail them much at sea. It is a notorious fact that the majority of surgeons in the Mercantile Marine know absolutely nothing of the construction of the ship they sail in, and as little of the various modes of ventilating and disinfecting it. And it is on such men as these that the lives and health of large crews and numbers of passengers are dependent. No wonder the rate of mortality at sea is so high. The Royal Navy recognises the necessity of their surgeons having a special knowledge of naval hygiene, ought not the Mercantile to do likewise?

This is the existing state of affairs and will continue so to be till the time comes when shipping companies will pay their surgeons sufficiently well to enable them to adopt the sea as a permanent field for practice. In the present depressed state of trade, when all shipping companies are striving their utmost to make both ends meet, it would not be fair to ask them to do much by way of increasing pay, but it would not be asking much if it were suggested that surgeons should be paid on the same scale as chief engineers, and that they might be allowed to charge first-class passengers for attendance on some specified scale. The Royal Mail Company have issued a regulation against passengers being charged for attendance though they modify the severity of it a little by adding that they have no objection to surgeons receiving fees voluntarily offered, but this is a bitter piece of sarcasm, for, of passengers, not one in five ever thinks of offering more than his card and thanks for any service done him.

I firmly believe that, were the large Mail Companies to give their surgeons better pay, were they to allow them to charge first-class passengers for attendance, and were they to insist on their signing for a certain period of service, and passing an examination on naval hygiene before entering, they would procure the services of many excellent men and we should see a department of medicine, which is now unfortunately in such a deplorable state, sought after by those who would fill it with credit not only to themselves but also to the companies who employed them. In conclusion I may say I write this letter in no repining or malicious spirit against the Company which I have more particularly mentioned and from which I must say I have always received extreme kindness and courtesy.

I am, sir, Yours, &c.
F. W. KIRKHAM.
Surgeon to the Royal Mail Steam Packet Company.

PODONYCHOTOMY: A NEW OPERATION.

[To the Editor of the Medical Times.]

SIR,—Amongst some MSS. recently left to me by a venerable nonagenarian member of our profession was the following paper which appears to have been written for some society. No date is appended to it, and the writing is somewhat illegible, but I have not had much difficulty in copying it. I cannot find that the paper was ever published, and I therefore venture to send it to you.

I am, Sir, yours &c.,
A. S. L.

"On the Operation of Podonychotomy."

"Several reasons have induced me to bring this subject before you to-night, but amongst them I will only name these—That I have paid no particular attention to it myself, and that if others happen to be in the same position, the discussion, after I have read my paper, will probably lead to suggestions conducive to one adopting proper methods in the performance of this important operation. Neither have I any theory of my own to advance upon the subject. Not long ago it is true that all practitioners undertook this operation which seemed rightly to fall, if we may judge from the writings of the last generation, within the domain of all, rather than in that of the pure surgeon, but now things have changed, and while at that time every practitioner carried a pair of seissors in his pocket, that simple instrument has now given place to the onychotome. Steadily has the two-bladed weapon fallen into disuse, and various special instruments have been elaborated by the surgeon for the performance of this operation. But to sigh over the cenotaph of the scissors, and to make epitaphs on the Hirudo, save we can say with Horace, "Nisi plena cruoris," for they both occupy the same cold tomb, is to give no answer to the question why the operation of podonychotomy is now so rarely performed. Have the toe-nails become permanently shortened by a process of evolution, or does the increasing prosperity of the profession, and the growing obesity of its members place the toe-nails out of ordinary reach? This last speculation is worthy of attention, and seems to throw some light on the scientific acumen of those great surgeons who lived before us, and with whom it must have been both a pleasure and a profit to dwell.

"It has often been remarked that the toe-nail, if unimpeded in its growth, will continue to increase in length and thickness, and following the bent of its own inclination, perchance cause pressure on the delicate structure of the adjoining cutis. Hence are prone to arise shortness of temper and a sense of irritation which are extremely annoying in old age, and which, even in early life, have given rise to diarrhœa, convulsions, and eczema. I am ready to admit that in such cases removal of the superabundant growth might have given instant relief, but I think that the cart must have been often put before the horse. How has the general public gained an insight into this strange pathology, and how can this society best remove the source of so much evil? To compare the practice of cutting the toe-nails with that of cutting the hair, though both hair and nails are developed from the same embryonic blastoderm, is to throw ridicule on the whole science of surgery and to degrade the noble art of the surgeon to the same level as the cheap trade of the advertiser. Perish the thought!

"There is one special disease of infancy which is apt to be

overlooked by those who see in over-growth of the toe-nail, the source of every evil; I refer to measles. It is frequently impossible to say when the poison of measles has been received into the system, but we should not content ourselves with the assumption that onychial irritation arises from this cause. Coincidences are the bane of young men, and, indeed, of all logic in medicine. The growth of the nails is a simple physiological process, handed down from father to son, from mother to daughter, and of the many ills to which flesh is heir, few are due to the exercise of this normal function. Atavism at any rate finds no support from it.

"Then to pass to the nail itself. What are the various conditions which call for use of the scissors, and demand a return to one good remedy out of fashion? When the matrix is healthy, and the nail is growing, it may be unnecessary in early life to perform any operation, for the infant may feed on its own toe. This is very common after the morning baptism. Does one then find it red and swollen, we know the cause, and I have never found any occasion for the use of the onychotome, although I always have one with me in my cigar case. Doubtless there are toe-nails which need removal. Who sees them? Who removes them? Do the physicians? God forbid! Do the family practitioners of whom I see so many around me; or do members of the society and of the general public cut their own toe-nails, abdominal obesity being the only obstruction? Lastly, I should like to hear from the society whether its members are in the habit of ordering Rochelle salts or Gregory's powder after this operation, or whether they allow the eliminative channels to have their full natural play? What are the dangers to be avoided in the conduct of this operation, and can those who have been under the care of the chiropodist give us the benefit of their experience?"

THE REVIVAL OF OVARIOTOMY.

[To the Editor of the Medical Times].

SIR,—I have just heard with very deep regret that Dr. Charles Clay, of Manchester, at the age of eighty-three, is stricken down with paralysis, I therefore hasten to take up a matter which concerns him, namely, the claim made by Sir Spencer Wells concerning the revival of Ovariotomy. Sir Spencer Well's address recently delivered before the Midland Medical Society was announced with the brief title "Modern Surgery," but on its appearance in print this title is enlarged to "An Address on the Revival of Ovariotomy and its Influence on Modern Surgery," and in it he practically makes a claim of having revived Ovariotomy between the years 1858 and 1865. Such a claim as this cannot in the least degree be substantiated when the facts of the case are fully examined. So far as has yet been discovered the first ovarian tumour removed in England was by the hands of Dr. Charles Clay, on September 27th, 1842, all others, with the exception of one by Houston and another by Lizars in Scotland, were clearly parovarian cysts. In 1843, Mr. Aston Key removed both ovaries, and Mr. Bransby Cooper also tried the operation in that year, but it was not till 1844 that there was a successful case in London operated on by Dr. Frederick Bird, followed by one in the practice of Mr. Lane. In the provinces, however, many successful cases had been done. In June, 1848, Dr. Charles Clay published a series of 32 cases with 10 deaths, and in 1857 he had completed 77 cases with 24 deaths. He operated continuously for many years till he had 395 cases, with 101 deaths, his total mortality being fractionally above 25 per cent., a mortality which I may remind Sir Spencer Wells is almost identical with that (25 per cent.) of his own 1,000 cases. At the same time the operation was being performed frequently in the large provincial towns of England, but particularly in Manchester, by Southam and others with great success. The only revival therefore of Ovariotomy which Sir Spencer Wells can lay any claim to is after its temporary decadence for two and a half years in London in the hands of Mr. Baker Brown, and even upon this point the evidence is by no means satisfactory. But if it is to be contended that from the time of McDowell till 1857 there was nothing being done in Ovariotomy, and that the revival took place in that year at the hands of Mr. Spencer Wells, I say it may as well be claimed for him that he revived the moon. To Dr. Charles Clay is due the credit of having established Ovariotomy in England and of having carried it through its early struggles. His practice was a mistaken one in the use of the long ligatures, but its results were certainly no worse than those obtained by the clamp. Dr. Clay unfortunately did not know of the results obtained by Nathan Smith from the use of the short ligature. Had he done so, abdominal surgery would have been half a century in advance of its present position, for then it would have been impossible for the clamp ever to have made its appearance. Baker Brown re-introduced Nathan Smith's principle and Keith brought it to perfection.

I am, Sir, yours &c.,

LAWSON TAIT.

Birmingham, November 24th, 1884.

OBITUARY.

FREDERICK A. MAHOMED, M.B. Cantab., F.R.C.P.

WITH profound regret we find it our duty to record the death of Dr. F. A. Mahomed, which took place on Saturday, November 22nd, at his residence, No. 24, Manchester Square, W. He had been attacked with rigors twenty-three days previous to his death, and the ordinary symptoms of typhoid fever followed in due course. Pursuing a plan of treatment agreed upon by himself and his colleague and friend, Dr. Cayley, he passed through the earlier stages most favourably. About the beginning of the third week a moderately severe hæmorrhage took place, with a somewhat alarming fall of temperature. On the day previous to his death he became collapsed, and never fairly rallied. He retained consciousness almost to the last, and still felt confident of recovery at a time when his friends could see only too plainly that hope was gone. He leaves behind him a widow and several children. The circumstances of his death recall to mind with painful clearness the loss which the profession sustained exactly a year ago in the death of his colleague Dr. Fagge. In both cases a bright prospect of future success had enabled them to enter upon practice in the West of London, and both have passed away at a time when their intellectual vigour was at its highest point.

Frederick Mahomed was born at Brighton in 1849, and commenced his medical life at the Sussex County Hospital in 1868. Entering as a student at Guy's Hospital in 1869, he obtained prizes at the end of his first and second years by examination, and was also awarded the prize for the best paper at the Pupils' Physical Society in 1870–71, for which he took the Sphygmograph as his subject. Becoming qualified in 1872, he was appointed resident medical officer at the London Fever Hospital, at which institution he has since succeeded to the posts of assistant physician and physician. He held the post of pathologist and medical tutor to St. Mary's Hospital School until his appointment as medical registrar at Guy's Hospital in May, 1877. A year after the retirement of Dr. Habershon he succeeded to the post of assistant physician, and shortly afterwards became demonstrator of pathology in association with Dr. Goodhart. In the meantime he had obtained the degree of M.B. at Cambridge, and had been elected a Fellow of the Royal College of Physicians, where he was recently nominated as the Bradshawe Lecturer for next year. As secretary of the Collective Investigation Society, his work has become known far and wide; and none can forget the vigorous manner in which, in conjunction with Dr. Burnet, he laboured to ensure the success of the late testimonial to Messrs. Bower and Keates. His unselfish efforts on behalf of them, and of the cause which they represented, will not be overlooked now that occasion has arisen for their practical recognition. The stimulus which has of late been given to the practice of anthropometry may, in a large degree, be attributed to the influence of Dr. Mahomed. In association with Mr. F. Galton he suc-

ceeded in formulating the science into a more practicable shape, and would doubtless have carried it to a point of real usefulness had his life been prolonged. He held an appointment as medical officer to an assurance company, in addition to his multifarious labours in hospital and private practice, and in scientific investigation.

Throughout each phase of the career outlined in the foregoing sentences, Dr. Mahomed exhibited in a most striking manner the quality of pure enthusiasm. Whether in the investigation of a new line of thought, or in the improvement of some old method of practice, he was equally enthusiastic and equally confident of ultimate success. And in this confidence there was no taint of self. With a new theory or a fresh belief fairly established in his mind, he did not hesitate to put it forth for the benefit of friends and students alike, thinking only of the purely scientific aspect of the question, and anxious only to enrich the common store of knowledge. Those who knew him but little have sometimes been led to think that he allowed his enthusiasm to overstep the bounds of reason. Among his students especially, there was at one time a tendency to look upon him as a visionary diagnostician, haunted by ever present phantoms, which showed him renal disease in everything. But no one held such an opinion for long. The most prejudiced person could not fail to recognize the value of such enthusiasm as this after a short acquaintanee with Dr. Mahomed. It was in the highest degree contagious, and its effect may be noted in the energy and success with which all those schemes have been conducted with which he was associated at the onset.

With a remarkable ingenuity and a singular aptitude for happy suggestion he united the still more valuable quality of indefatigable industry. To whatever kind of work he set his hand, he invariably entered into it heart and soul, with a single-minded determination that nothing should be wanting on his part to carry it to a successful issue. No better example of his indomitable energy can be cited than the manner in which he obtained his degree at Cambridge. Finding that residence within the precincts of the University was insisted upon by the authorities, he obtained permission to absent himself on certain days of the week, on condition that he slept at Cambridge. Without relinquishing any portion of his work in London, which was at that time most laborious, he travelled almost daily between the two places, employing the time on the journey in reading for his examinations.

From the first moment of his appointment at Guy's Hospital as Medical Registrar, he was for ever striving to add to the facilities for giving the most thorough praetieal education to students. By organising classes and demonstrations, and by improving the system of case-taking, he was able to introduce a sound practical knowledge of elinical medicine into many a brain that would have absorbed but little of itself. The extent of the loss to the Medical School can hardly be overstated. A vigorous and honest enthusiasm such as his, earried colleagues and pupils alike toward the fulfilment of higher aims. Of steady and industrious workers and of eultivated and powerful thinkers there is no lack, but of pure and single-minded enthusiasts there are but few in the profession. The element which such men supply is of inestimable value in the small world of a medical school. Apathy and agnosticism are the besetting sins which hinder the progress of medicine therein: but neither could long abide the presence of Dr. Mahomed.

Of his published work, by far the most important is to be found in the volumes of the "Guy's Hospital Reports," to which he contributed many papers on the subjects of chronie renal disease and albuminuria. Of his work upon this subject, and upon the teachings of the sphygmograph, it may be said that, like all his original labours, they are most suggestive, and will undoubtedly form the groundwork of future knowledge which others must now endeavour to supply. He was a frequent attendant at the Medical Societies, and took an active part in debates. A few days only before the onset of his fatal illness he was present at a meeting of the Clinical Society, and earned well-merited applause by the narration of a successful case in which, with characteristic energy, he had cured intermittent perityphlitis by means of operative removal of the foreign body which was giving rise to it.

With a thorough love of his profession as a scientific pursuit, Dr. Mahomed was by no means independent of it as a means of living, but in all his work he was never actuated by a shadow of an unworthy motive. In his endeavour to enlarge the range of medical science he worked for others and not for himself. In words which he himself was fond of quoting, he may well be "counted among the learned and the good who strive to make the future better and happier than the past."

The funeral took place on Thursday, November 27th, at Highgate Cemetery, in the presence of a large gathering of colleagues, friends, and students, many representatives being present from St. Mary's Hospital, the Fever Hospital, and the British Medical Association.

LESLIE MATURIN, M.K.Q.C.P., L.R.C.S.I., &c.

We deeply regret to record the almost sudden death of this talented and rising Irish physician, which occurred at his residence, Cork Street Fever Hospital, Dublin, on Wednesday, November 19th. Dr. Maturin died on the tenth day of an attack of scarlet fever caught under circumstances which strongly remind us of the sad death of Dr. Samuel Rabbeth some weeks ago. Six days before the symptoms of his fatal illness showed themselves, Dr. Maturin went with a brother practitioner to visit a little child lying dangerously ill of scarlatina anginosa. A large abseess near the tonsil endangered the child's life, and Dr. Maturin opened it. At the same moment the ehild coughed into his face. So conscious was he of the danger of this aceident that he returned to Cork Street Hospital, saying that he felt he was in for an attack. This presentiment proved only too well founded. He visited the sick child on Tuesday afternoon, November 11th, and the following Monday, November 17th, he was suddenly seized with shivering, vomiting, purging, violent headache, and pyrexia so intense that in a few hours his temperature rose to 105·4° Severe nervous (ataxic) symptoms quiekly set in, the throat became intensely painful and sloughy, and extreme dysphagia accelerated a deadly loss of strength. Then eame heart failure, and the end.

Leslie Maturin, whose life was thus untimely cut short at the age of 35 years, was the eldest son of Mr. John Maturin, of Newtownstewart, eo. Tyrone, a scion of one of the many old French Huguenot families which sought a refuge in Ireland after the Revocation of the Ediet of Nantes. From his student days his eareer was one of great promise. Even before he obtained his diplomas, in 1874-75, he was selected to fill the responsible post of Assistant-Accoucheur in the maternity attaehed to Dr. Steeven's Hospital, Dublin, wherc he had previously held the appointment of Surgical Resident Pupil for a lengthened period. Subsequently, he acted for some time as Surgeon-Superintendent of the Emigration Department, New Zealand Government. But these tame employments did not harmonize with Maturin's temperament, which was zealous, daring, and ambitious, and accordingly on the outbreak of the Russo-Turkish War in the summer of 1877, we find him volunteering as Surgeon to the Red Cross Society—the Russian Siek and Wounded Society under the administratorship of Dr. Humphry Sandwith, C.B. Through the trying campaign of the memorable winter of 1877-78, and through the still more trying horrors of the famous siege of Plevna and Rahova, and the battle of Gorney Dubnick, Leslie Maturin passed unscathed. He was second in eommand to Dr. Sandwith, who wrote in the highest terms of praise of his work and abilities.

On the conclusion of the war, Dr. Maturin returned home and served for some time as a dispensary medical officer, both in that *ultima Thule*, Achill Island, and also at Blessington, co. Wicklow. On the outbreak of small-pox in Dublin in 1878, he was appointed medical officer in sole charge of the Small-Pox and Fever Hospital of the South Dublin Union, at Kilmainham. This appointment he continued to hold until the hospital was elosed in 1882. While in charge he did excellent work, the results of whieh he published in the form of annual reports in the *Dublin Journal of Medical Science*. Early in 1883 he became resident medical officer and registrar to Cork Street Fever Hospital, Dublin,

where his kindness and attention to the sick, his ready resource and skill, often excited the admiration of the writer of this notice.

During his comparatively brief career, Leslie Maturin contributed many valuable papers to current medical literature. In the *Dublin Journal of Medical Science* he published several articles of interest and of scientific value. Among them we would in particular mention his reports of Kilmainham Fever Hospital, in which are included statistics relating to nearly three years' constant work in that institution, and a very important article on the "Use of Urari in Tetanus," as also one on "Vascular Hydrosis as a Prophylactic to Poisonous Absorption."

Dr. Maturin's death has excited wide-spread sympathy in Dublin, and the esteem and affection in which he was held received ample proof in the numerous and representative attendance of members of the profession and personal friends on the occasion of his interment at Mount Jerome Cemetery on the morning of the 21st instant.

MEDICAL CONSULTATIONS.

No. IV.—DIET.

SCENE—*The dining-room of a country house, after dinner.*

DRAMATIS PERSONÆ.

F.R.C.P.—*A physician from town.*

M.D., CANTAB.—*A provincial physician.*

L.S.A.—*A country practitioner.*

F.R.C.P. Absolutely a vicious dinner!

M.D., CANTAB. But pleasant and seductive, none the less.

F.R.C.P. Naturally. Vices, I have been informed, are commonly—I might say uncommonly—pleasant, until one confronts the penalty.

L.S.A. As Shakespeare says

"The gods are just and of our pleasant vices
Make instruments to plague us."

F.R.C.P. O, Shakespeare. Yes, exactly. But Shakespeare, marvellous fellow though he was, had not quite the experience of a London physician. He knew nothing, I take it, of gin-drinker's liver, of beer-drinker's kidney, of syphilitic brain or debauchee's spinal cord. Certainly he can have known little of those minor penalties of indulgence for which we have had to prescribe to-day, and from which we may infer the stronger digestions of his day were exempt. And why exempt, but that their dishes were more sensibly dressed, not tricked out with Frenchified sauces to spur on the jaded appetite, but sent to table with their natural flavour and their natural toughness? The jaws and the palate are the stomach's lawful guardians. With proper food the palate and the jaws are weary before the stomach. But if you circumvent palate and jaw, your stomach, with its lowly organised sensation, knows no more when to stop than that of a cow turned loose into a field of vetches; that is why I called our dinner a vicious one. The chances are that we have all eaten more than we can assimilate. Our hostess, I am sure, in spite of all our preaching, habitually does so.

M.D., CANTAB. I fear she does. And yet, on your own reasoning, her very sufferings may, like the aching jaw and cloyed palate, be the means of protecting organs whose integrity is more essential to life. Her grandmother would have had, not indigestion, but gout. If all they say is true, except in children, gross greediness is an obsolete vice. No one nowadays dies of a surfeit. When we go abroad, we make a single portion, which I take it is the index of the traditional appetite, serve for two or three.

F.R.C.P. Yes, but we have three courses where once they were content with one. Our ancestor who sat down and ate half a leg of mutton and then filled his pipe was greedy.

L.S.A. (*sotto voce*). "A joint of mutton and any pretty little tiny kickshaws."

F.R.C.P. But your modern gentleman who only eats moderately of soup, whitebait, salmon, sweetbread, filêt, saddle of mutton, game, sweets, ice pudding, and an assortment of fruits——

L.S.A. "A snapper up of unconsidered trifles."

F.R.C.P. Aptly quoted indeed! Your modern diner-out, I was going to say, is not greedy. O, no, he is *gourmet*, but not *gourmand*. For all that, however, he eats more than is good for him. Not more perhaps in the twenty-four hours than is necessary to replace his daily waste, but he crowds it all in at a sitting, and so he gets what I am in the habit of calling "one-meal dyspepsia." That is the modern fault.

M.D., CANTAB. It is not our fault hereabouts, as you would readily admit if you saw our hunt breakfasts and shooting luncheons. What you call "one-meal dyspepsia" is common enough among the mill hands who come to me at the hospital. They eat largely of meat at noon, and fill in with tea and bread and butter. But our upper classes and their servants, especially the servants, seem to me to be always eating. Their life is a "perpetual feast;" as for the "contented mind," well, the less said about it the better.

L.S.A. But, Dr. F., do I understand that you really attach more importance to restriction of quantity than regulation of quality?

F.R.C.P. Certainly I do. Regulation of quality is only important as a means of restricting quantity. In London, I have the reputation of being a starving physician, because I din it into the ears of all my patients that they eat too much. But I don't interfere with what they eat. In fact, I hold it to be unbecoming in a man of science to trouble himself with details of diet, and tell his patients what, if they are in their senses, they must know better than he. "Eat less" is the command I give, and I find it marvellously successful. An anxious mother brings me her fat hysterical daughter, "Dear doctor, she eats nothing—but *nothing*." "Eat less," and the next month she comes back a different creature. The most tiresome patients I have to deal with are ladies advanced in years, like our hostess, who firmly believe they must eat to keep up their strength, that the more they eat the stronger they will keep. It is a fixed idea which not the eloquence of all the physicians in the world would avail to remove, for there is nothing a woman fights against so much as the notion that her powers are on the wane.

M.D., CANTAB. As to dieting, I don't think I altogether agree with you. You will admit that one food is more digestible than another. Experiment has shown it to be so, and science has told us why. Who then can steer his patient safely through the shoals and rocks of a dangerous diet into the still waters of eupepsia, if not the physician who has taken soundings of them?

F.R.C.P. Your simile is a false one. Digestions vary, and are not framed on one pattern. *Quot homines tot digestiones.* Each man has his own rocks and shoals, and in avoiding them a grain of personal experience is worth a hundredweight of scientific doctrine. Besides, the more you interfere with quality of diet, the more you will have to interfere with it. If you begin by making things too easy for the stomach, it will end by making things too hard for you. It is an aphorism of mine that "a man

is as strong as his digestion," but then his digestion is very much what he chooses to make it. Forbid cheese, for instance, and the stomach will soon take it into its head that cheese is of all things the most indigestible; whereas if you had said nothing about it, the stomach would have taken it as a part of its day's work and said nothing about it either.

L.S.A. "Subdued to what it works on, like the dyer's hand."

F.R.C.P. There are more ways of pampering that dear organ of ours than distending it with dainties; and of the men who habitually think of it too much, I can hardly say which spoils it the most, the valetudinarian or the epicure. The question is, who shall be master, you or your stomach, and woe to you if you let it get the upper hand.

L.S.A. "By my penny of observation" I have come to the conclusion that if we only took indigenous diet, we should hear little of dyspepsia. Nearly all the foods that cause it are, I find, foods that are not native to this country. Item, tea imported from China. Item, potatoes imported by Raleigh from America. Item, cane sugar imported from the West Indies. Item, cucumber. Item, cheese, of which the most fatal kinds come to us from France and Switzerland, and must be putrid to be palatable.

M.D., CANTAB. And pray, my good L., what of the homely radish, the indigenous lobster, the salmon of our rivers, and the pastry of our cooks? What says your Shakespeare?

"Gets him to rest crammed with *distressful bread*."

L.S.A. O come, I protest. The bread was "distressful" because the poor fellow could not get anything better. Your gloss is entirely unsupported by the context.

M.D., CANTAB. I willingly bow to your superior authority.

F.R.C.P. For my part I believe that the idea of looking on almost every imaginable food as a criminal ready to work mischief on the slightest provocation, is quite a modern one, and doctors are greatly to blame for encouraging it. The real fact is, that science has not yet provided us with a generalisation as to admissible foods. All that we can say at present is that foods that can be chewed can be digested, provided always you do not take too much. Diet is a matter of common sense, not of science, whose interference with it has proved purely mischievous. Our peptonized foods, our pepsines, our malt extracts have worked more harm to the national digestion than all the tea and potatoes that were ever imported. Useful they may be to tide over a period of digestive languor; or in old age when the laboratory of life is failing. But for healthy men and women, whose powers can yet respond to natural stimuli, they are a fatal gift—a gift of over-meddlesome science.

L.S.A. Then how, pray, have you won your reputation for curing dyspepsia?

F.R.C.P. Easily. Because while other men have drowned their patients' stomachs with half the pharmacopœia, bismuth, alkalies, charcoal, acids, strychnine, iron, pepsine, hypophosphites, arsenic, mercury, and I know not what, my remedies have been but two—starvation and calumba. In the worst cases a course of rectal feeding and perhaps a blister on the pit of the stomach. Twice I think in my life I have prescribed a diet of asses' milk. Once I had the stomach washed out. But these were quite exceptional cases. In fact, I seldom order anything but two leisurely meals a day of crisp and toughish diet. If the patient rebels, I send him to the dentist. (*Rising.*) How goes the time?

L.S.A. I fear you ought to be starting. There is a long drive before you. A glass of sherry before you say good-bye upstairs?

F.R.C.P. Shall I? Thanks! Ah, that to practise were as easy as to preach.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—*Fellowship Examinations.* The following gentlemen having undergone the necessary examinations, on the 24th instant, were reported to have acquitted themselves to the satisfaction of the Board of Examiners, and when eligible, will be admitted to the pass examination, viz.:—

Messrs. William F. Taylor, student of Kingston, Canada; Henry D. Farnell, University College Hospital; Thomas M. Porter, Liverpool School; John C. Lamont, University of Edinburgh; and Frederick H. Taylor, London Hospital.

Seven candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their studies for six months.

The following gentlemen passed on the 25th inst., viz.:—

Messrs. Clayton C. Harris, St. Bartholomew's Hospital; Gilford Hastings and Samuel W. Owen, Guy's Hospital; William Williams, St. Mary's Hosnital; and Alfred J. Gregory, London Hospital.

Four were referred for six months, making a total of eleven rejections out of the twenty-one examined.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 20th, 1884:—

Edward Thomas Gregory, Charing Cross Hospital; William Lees, University College; Arthur Smith Loftus, Charing Cross Hospital; George William Mullis, Guy's Hospital; Joseph Orlando Orr, Toronto University; Harry Winstanley Shadwell, St. Bartholomew's Hospital; Thomas William Thomas, University College.

The following gentleman also on the same day passed the Primary Professional Examination.

Theodore Albert Vores Ford, St. Thomas's Hospital.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 19th inst., the degree of Bachelor of Medicine was conferred on Oswald Auchinleck Browne, Trinity. Dr. Donald MacAlister has been appointed by the Senate an examiner at the third examination for the degree of M.B.

UNIVERSITY OF GLASGOW.—On the 21st inst., in the Bute Hall, a supplemental graduation ceremony took place under the presidency of Principal Caird. The degrees conferred were as follows:—

M.D.—William Broadfoot, Alexander Meighan, Charles Wilson.

M.B.C.M.—Robert Eaglesham, James D. Farquharson, Alexander M. Kinghorn, David Moffat, Robert L. R. Macleod, Tamiz Uddin.

PATHOLOGICAL SOCIETY.—Tea and coffee will in future be provided at the meetings of the Society from 8 to 9 p.m., instead of at the close of the meeting as heretofore.

THE Library of the Royal College of Surgeons will be closed for the purposes of the Fellowship Examinations, on Friday 28th and Saturday 29th November. Also, after 1 o'clock on Monday, December 1.

MIDDLESEX HOSPITAL.—The Princess Christian has consented to open the new building in connection with the Middlesex Hospital on Tuesday, Dec. 16, at 12.30 p.m.

BELFAST ROYAL HOSPITAL.—The annual report of this charity was submitted to the yearly meeting of its corporation on Monday last, 17th inst. From the secretary's statement it was seen that the institution commenced the financial year with a debt of over 700*l.*, and although every exertion was made to wipe this out during the year, it has steadily increased, until now it amounts to almost 1,800*l.* A bazaar, which opens in a few weeks with every prospect of success, is expected to more than wipe out this deficit. The cause of this state of matters was demonstrated by the figures in the medical report, which show that of the 15,000 patients treated during the year there was a surplus of 1,500 over that of many years' work done since the hospital was founded. Though this heavy debt hangs over the charity, the board of management and general committee are determined to turn away no deserving or pressing cases. It is thus yearly becoming clearer that the hospital will soon be unable to meet the demands of the population.

One of the causes for its limited subscription list was stated strongly to be owing to a dissatisfaction existing amongst some of the clergy about the want of facilities given to them of visiting patients of their own denominations while in hospital. A special meeting will be at an early date summoned to consider the question.

Newcastle-upon-Tyne Infirmary.—The Prince of Wales has consented to become patron of this hospital, an office that has not previously existed in connection with it.

Charitable Bequests.—The late Mrs. Willoby, of Hastings, has left 2,000*l.* to the Brompton Consumptive Hospital, and 1,000*l.* each to the London Cancer Hospital and the Sussex County Hospital at Brighton.

Compulsory Notification of Infectious Diseases.—Dr. Tibbits read a paper on this subject at a recent meeting of the Bradford Medico-Chirurgical Society. He said that it was only for the last 10 years that compulsory notification had seriously occupied public attention. He maintained that there was a tendency to over-legislation in matters pertaining to the public health, and dwelt on the different diseases which it was compulsory to notify. He contended that compulsory notification without provision for isolation was absurd, and dwelt upon the difficulty of diagnosing fevers from their early symptoms, instancing cases in which patients sent into hospital and alleged to be suffering from one fever were found to be suffering from another, and meantime infected other patients. To obviate these difficulties, he suggested (1) that quarantine wards ought to be provided for doubtful cases. (2) A large convalescent house for scarlatina patients should be provided. (3) All patients should first be sent to quarantine wards except in those cases where the diagnosis was absolutely certain. (4) In all cases of doubt, a consultation should take place between the medical attendant and the Medical Officer of Health, and if they could not agree, a third person should be called in as arbiter. (5) All Medical Officers of Health should be purely State Officers, and legislation of this kind should be imperial.

Chloride of Cocaine.—The *New York Medical Record* (October 18th), commenting upon communications from several correspondents concerning this new local anæsthetic, observes that we are in some danger of over-reaching the bounds of reasonable enthusiasm regarding its merits, so considerable have these proved when submitted to the severest tests by several well-known ophthalmologists. If its power to control pain in iridectomy can be established, the importance of the discovery of this anæsthetic will, in eye-surgery at least, rank second only to that of ether itself. The test for its still wider range of usefulness in surgery is yet to be made in ophthalmic practice. It is not reasonable to suppose that, even from the present aspects of the question, we shall stop here. It is quite certain that in those numerous cases in which local anæsthesia is necessary for minor operations in surgery, gynæcology, laryngology, otology, and even dentistry, this anæsthetic will be tested. Especially would it seem to be indicated in those parts of the body which are covered by mucous membranes and plentifully supplied with sensitive nerves. As yet we know little or nothing of its possibly poisonous effects in large doses, and it is to be hoped that no rashness will demonstrate them.

The Lord-Chancellorship of Glasgow University.—The voting papers issued to the members of Glasgow University Council, in reference to the election of the Lord-Chancellor, were on Thursday last summed up by the Registrar (Mr. T. Moir) in the presence of the proposers of the Earl of Stair and the Marquis of Bute. The result was declared as follows :—For Earl of Stair, 720; Marquis of Bute, 192; Lord Reay, 26. A great number of the votes were rendered invalid through the voter not having attached his signature to the voting paper; and of such rejected papers there were, for the Earl of Stair, 389; Marquis of Bute, 126; Lord Reay, 11. Principal Caird intimated the election of the Earl of Stair in the manner prescribed in the ordinances of the Scottish University Commission.

British Medical Temperance Association.—At a meeting of the British Medical Temperance Association held on Tuesday last in the Medical Society's rooms, it was announced that the President, Dr. B. W. Richardson, and the Council were now prepared to offer a prize of 100 guineas for the best essay on the Physical and Moral Advantages of Total Abstinence from Intoxicating Liquors, to be competed for by medical students in the United Kingdom. Dr. Heywood Smith subsequently read a paper on the Use of Alcohol by Parturient Women.

Hydrophobia in Vienna.—Hydrophobia is stated to have been rampant in Vienna for some weeks. There have already been some 80 cases and 11 deaths.

French and German Doctors in 1883.—During 1883, the six Faculties of Medicine in France conferred 662 diplomas of doctor of medicine, viz., Lille 20, Nancy 21, Lyons 43, Bordeaux 44, Montpellier 69, and Paris 465. During the same year 692 diplomas of doctor of medicine were conferred in Germany.

The Digitaline of the French Hospitals.—M. Laborde, who some time since exposed the worthlessness of the quinine employed in the French hospitals, has now taken their digitaline in hand. He stated at a recent meeting of the Société de Biologie that he had formerly examined samples of digitaline on sale of German and of French manufacture, and had found that the latter was of very superior quality. He has lately examined a sample of that used at the French hospitals, and has found it worse than any other as regards chemical composition and physiological action. Therapeutically, it may be declared to be inert; and this is why many hospital physicians have discontinued prescribing digitaline, or only use that which they bring with them.

Chronic Conjunctivitis.—A dram of balsam of copaiba to an ounce of white vaseline makes an ointment popular with New York ophthalmologists in treating chronic conjunctivitis.

Cheese Poisoning in Michigan.—At the recent meeting of the Michigan State Board of Health, Dr. Baker continued his reports on this subject. Seven outbreaks within the State had been reported during the year, 190 persons having been affected in all, but none fatally. The symptoms were very similar in all cases, consisting of pains in the stomach, muscular cramps, coldness of the extremities, and great prostration, with violent retching and purging for several hours. Specimens of the Lowell cheese had an acid reaction, and a peculiar strong odour, believed to be due to caprylic acid or caproic acid. Examined under a one-tenth inch immersion objective, the cheese was found to contain the mycelium of a mould, and to be swarming with several kinds of bacteria in active movement.

Arrangements for Dental Students in Dublin.—A largely attended meeting of the staffs of the Clinical Hospitals of Dublin was held in the Albert Hall of the Royal College of Surgeons, Stephen's Green, on Tuesday, November 25th, to consider a proposition by Mr. R. Theodore Stack, that dental students should be granted certificates for partial attendance at clinical hospitals. Mr. Stack's proposal is as follows:—"That the dental student be permitted to attend the surgical wards only of any of the Dublin Clinical Hospitals, and that he may be given a certificate of such attendance for the fee of 6*l.* 6*s.*, for each session of nine months, provided that proof of at least attendances during each such session is produced by him. That such certificate of partial attendance shall not be given by any hospital, except on the production by the dental student of a certificate that he has entered and paid his fees for the practice of a dental hospital, and for the special lectures in the dental school connected therewith, viz., Dental Anatomy, Dental Surgery, Metallurgy and Mechanical Dentistry, this certificate to be signed by three members of the staff of a dental hospital which courts the inspection of any of the licensing bodies in Dublin, which from time to time may, under the Dentist's Act, arrange to issue a dental diploma." A resolution was put to the meeting that Mr. Stack's proposition be acceded to, the following safeguards being adopted:—A special uniform

certificate of hospital practice to be issued to the dental students only, and a copy of the same to be forwarded to the various licensing bodies, such certificates to be available for the dental qualification only. After a very full discussion the resolution was rejected, *nemine contradicente*, chiefly on the ground that in the dental curriculum of the Royal College of Surgeons of Ireland it was provided that the two years of partial hospital attendance should count as full years should the dental student elect to complete his course for the letters testimonial of the College.

Fatal Epidemic in Virginia.—A New York telegram states that the outbreak of a fatal epidemic is reported from some remote counties of South-West Virginia, and some adjoining parts of Kentucky. Drought having dried up the ordinary wells, the inhabitants drank the water from some mineral wells, which produced a peculiar disease, as deadly as cholera. Several entire families perished, the effects of the disease being terribly sudden. The mortality is variously estimated from 400 to 800. Few of those attacked recovered, the proportion of fatal cases being from 60 to 80 per cent. A subsequent telegram states that the epidemic, which is considered by the medical authorities to be one of dysentery, has already abated owing to a heavy rainfall.

The Howard Medal.—At a meeting of the Statistical Society of London, held on the 18th instant, the Howard Medal and 20*l.* were presented by the President, Sir Rawson Rawson, K.C.G.M., C.B., to Clement Dukes, M.D., B.S., Lond., Physician to Rugby School, and Senior Physician to the Hospital of St. Cross, Rugby, for an essay on "The preservation of Health as influenced by personal habits, such as cleanliness, temperance, &c."

Prosecution under the Medical Act.—At Hammersmith police-court, on the 14th instant, Henry Trist, of Fulham, was fined the *maximum* penalty, 20*l.* and 1*l.* 3*s.* costs, for having falsely held himself out as a duly qualified medical practitioner. His solicitor wished to appeal, but it was found that the Act did not provide for it.

Count Lesseps on Quarantine.—M. de Lesseps, in reference to a visit which he is about to pay to Egypt, insisted at the Académie des Sciences on the uselessness of quarantine, which he considers as a vestige of the barbarism of former times. The ineffiecacy of this prophylactic measure, which has been so well demonstrated at the present time, gives reason to hope for its speedy and final suppression, with which will disappear one of the most troublesome obstacles to the freedom of circulation, which has become an imperious necessity for modern life.

Death after Tying External Piles.—It is a well known fact that ligature of external hæmorrhoids is always accompanied by excruciating pain, not to be relieved by narcotics, while that of internal piles is painless. This, probably, is also the reason why so frequently trismus and tetanus follow the tying of external hæmorrhoids. There are many such cases recorded, and Dr. Snamenski, in the *Moscow Zeit.*, No. 35, 1884, adds two more cases. In one of these trismus and death followed the operation on the sixth day, while in the other most violent pains occurred but eventual recovery took place. In thirty-nine cases of ligature of internal piles neither pain nor complication took place. Dr. Snamenski has made numerous experiments on dogs, stating that, as in man, the mucous membrane of the rectum 1½ centimetres above the anus is quite insensitive, while the last centimetre and the skin around the anus possess an extraordinary hyper-sensitiveness. This agrees with the anatomical researches of Fellner, who has discovered that the skin near the anus and the rectal mucous membrane for about one centimetre above the anus is provided with sensation by the sensory *nerv. pudend. comm.*, while the mucous membrane of the rectum about 1 centimetre above the anal orifice receives only fibres of the non-sensory middle hæmorrhoidal nerves.

The Microbe of Yellow Fever.—At the last meeting of the Paris Société de Biologie, M. Rebourgeon gave some additional information as to the researches of Professor Domingos Frére, of San Janeiro, on the microbe of yellow fever. He believes that a former communication to the Académie de Médecine has not met with the attention it deserves. M. Frére, he observes, is fully entitled to priority in this discovery, the reality of which is shown by the fatality which attends the inoculation of the microbe in animals, which is very easily brought about. A still more important result is the attenuation of the virus by means to be hereafter divulged; inoculation of this attenuated matter only produces temporary disturbance of the animal's health Informed of the experiments, the Emperor of Brazil ordered that 600 workmen, constantly occupied in the midst of highly infected centres, should be inoculated. While before this period 10 men out of every 30 had been attacked with the disease none of those inoculated have suffered, except four or five men, in whom the operation was performed by the lancet instead of by the Pravaz syringe. M. Bouley drew attention to the importance of giving the widest publicity to these statements, and stated that the attenuated virus was about to be taken to Senegal, where last year 23 out of 25 French physicians died of yellow fever.

Terpine.—Under this name M. Lépine gave an account at the Lyons Société des Sciences Médicales (*Lyon Médical*, November 16th), of a new therapeutical agent produced by a chemical combination of turpentine, alcohol, and nitric acid. In doses of from 29 to 40 centigrammes he has found it very useful in chronic, and even in sub-acute, bronchitis, greatly facilitating expectoration. Advantage has also been derived from it, in the same or smaller doses, in some cases of chronic nephritis. It is a diuretic acting directly on the renal epithelium, requiring to be used with circumspection.

APPOINTMENTS.

Allwright, Frederick William, L.K.Q.C.P. Ire., and L.R.C.S. Ire.—Medical Officer to the Eighth District, Wycombe Union, *vice* Mr. A. Warren, resigned.

Caiger, F. Foord, M.B., B.S., M.R.C.S., L.R.C.P.—House Physician to St. Thomas's Hospital.

Green, C. D., M.B., M.R.C.S., L.R.C.P.—Resident Accoucheur to St. Thomas's Hospital.

Hill, M., M.D.—Honorary Physician to the Bootle Borough Hospital, *vice* G. C. Walker, M.D., resigned.

Jones, R. Nelson, L.R.C.P., M.R.C.S.—House Surgeon to the Swansea Hospital, *vice* W. Carr Humphreys, M.R.C.S., &c., resigned.

Johnston, G. D., M.R.C.S., L.R.C.P.—House Physician to St. Thomas's Hospital.

Lankester, H. H., M.R.C.S., L.S.A.—Non-Resident House Physician to St. Thomas's Hospital.

Lawson, R., M.R.C.S., L.S.A.—Assistant House Surgeon to St. Thomas's Hospital.

Mackenzie, H. W. G., M.A., M.B.—Assistant House Physician to St. Thomas's Hospital.

Maclehose, N. M., M.B., C.M.—Resident Medical Officer to the Sick Children's Hospital, Glasgow, *vice* Mr. W. S. H. Walker.

Marriner, W. H. Lister, M.B., M.R.C.S., L.R.C.P.—Clinical Assistant in the Department for Diseases of the Throat to St. Thomas's Hospital.

Orford, J., M.R.C.S., L.R.C.P., L.S.A.—House Surgeon to St. Thomas's Hospital.

Plowman, S., M.R.C.S., L.S.A.—Clinical Assistant in the Department for Diseases of the Skin and Ear to St. Thomas's Hospital.

Reynolds, Lewis William, M.R.C.S., and L.S.A.—Medical Officer to the First District, Wycombe Union, *vice* Mr. W. Rose, resigned.

Robinson, H. B., M.R.C.S., L.R.C.P.—House Surgeon to St. Thomas's Hospital.

Robinson, H. S., M.R.C.S., L.R.C.P.—Honorary Surgeon to the Montwearmouth Dispensary and Accident Home.

Rose, J., M.R.C.S., &c.—Honorary Ophthalmic Surgeon to the Bootle Borough Hospital.

Russell, A. W., M.B., C.M.—Medical Superintendent to the Western Infirmary, Glasgow.

Smart, David, L.R.C.P. Lond., M.R.C.S., and L.S.A.—Medical Officer to the Bermondsey Workhouse, St. Olave's Union, *vice* Dr. Cuolahan, deceased.

Stirling, Charles, M.B., and M.Ch.—Medical Officer to the Second District, St. Olave's Union, *vice* Dr. Cuolahan, deceased.

Sutton, S. W., M.D., B.S., M.R.C.S., L.R.C.P.—Ophthalmic Clinical Assistant to St. Thomas's Hospital.

Walker, G. C., M.D., &c.—Honorary Consulting Physician to the Bootle Borough Hospital.

VACANCIES.

Addenbrooke's Hospital, Cambridge.—Resident House Physician. Salary, £65 per annum, with board, lodging and washing in the Hospital. Candidates must be duly registered. Applications with qualification and testimonials to be sent to the Secretary (from whom further particulars can be obtained), on or before Dec. 9th.

BECKETT HOSPITAL AND DISPENSARY, BARNSLEY.—House Surgeon. Salary, £130 per annum, with furnished rooms, gas, coal, and attendance. Candidates must possess full medical and surgical qualifications. Private practice prohibited. Applications, with testimonials, to be sent to the Honorary Secretary, before December 1st.

BIRKENHEAD UNION.—Medical Officer to the Fourth District, in succession to Dr. Richard Sylvester Daniel, deceased. Area, 3,621. Population, 20,033. Salary, £100 per annum.

BOROUGH OF NOTTINGHAM.—Medical Officer of Health. (*For particulars see Advertisement.*)

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, PARK PLACE, MANCHESTER.—House Surgeon. Salary, £80 per annum, with apartments and board. Candidates must be duly qualified pretitioners. Applications, with testimonials, stating age, to be sent to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester, not later than December 4th.

DARLINGTON HOSPITAL AND DISPENSARY.—House Surgeon. Salary, £100 per annum, with board, lodging, and attendance. Candidates must possess double qualifications, and be duly registered practitioners. Applications, stating age and previous experience, and enclosing testimonials as to special qualifications, to be sent to Henry Fell Pease, Esq., Brinkburn, Darlington, on or before December 3rd.

HOLYWELL UNION.—Medical Officer to the Flint District, in succession to Mr. Richard Jones, deceased. Area, 11,700. Population, 11,116. Salary, £48 per annum.

KING'S COLLEGE, LONDON.—Chair of Materia Medica and Assistant Physicianship. (*For particulars see Advertisement.*)

MITFORD AND LAUNDITCH UNION.—Medical Officer to the North Elmham District, in succession to Mr. Peter Parlett Ranson, deceased. Area, 19,228. Population, 4,052. Salary, £60 per annum.

PEWSEY UNION.—Medical Officer to the Third District, in succession to Dr. Fulcher, resigned. Area, 14,145. Population, 2,440. Salary, £63 per annum.

RATCLIFFE INFIRMARY, OXFORD.—Honorary Physician. (*For particulars see Advertisement.*)

VICTORIA UNIVERSITY. — External Examiners in Physiology, Anatomy, Pathology, and Systematic Surgery. (*For particulars see Advertisement.*)

DEATHS.

BODDY, W. B., M.R.C.S., at 111, Camberwell Road, on November 20th, aged 89.

CLOTHIER, HENRY, M.R.C.S., at Haselmere, on November 25th, aged 76.

FLUDER, EISDELL, M.R.C.S., L.S.A., at Cromer, Suffolk, on November 15th, aged 40.

MAHOMED, F. AKBAR, M.B. Cantab., F.R.C.P., at 24, Manchester Sqnare, W., on November 22nd, in his 36th year.

MATURIN, LESLIE, M.K.Q.C.P., Resident Physician at Cork Street Fever Hospital, Dublin, on Novmber 19th, aged 35.

NOTES, QUERIES, AND REPLIES.

OUR APPEAL.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Three years ago a young surgeon practising in New Zealand died suddenly, nine months after losing his wife. Two little orphan sons aged 3 and 4 years respectively, were at once sent home to England to their grandmother, the widow of a clergyman, herself in delicate health, advanced in years and with scanty means of support. With praiseworthy energy this good old lady at once set about an active canvass to get one of the lads into the Wanstead Orphan Asylum and was happily successful. She is now most desirous, ere she dies, that the other little fellow should find a home in the same institution as his brother, so that the fatherless and motherless boys may at least see and know something of each other during their childhood and youth.

A sum of £180 will secure the fulfilment of this very natural wish and will provide a home and education for the child for the next nine years.

The British Medical Benevolent Fund, which has already on two occasions given assistance, has to-day promised £20 if the remainder of the sum required is forthcoming, and I venture to make an appeal through your columns for contributions for this purpose.

I shall be most happy to give fuller information either personally or by letter to any who may desire it.

I am, Sir, yours &c.,

STAMFORD FELCE.

Kenmure Lodge, Elgin Road,
St. Peter's Park, W.,
November 25th, 1884.

THE TREATMENT OF LEPERS IN CALIFORNIA.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Thinking that perhaps the Yankee mode of dealing with foreign lepers may not be generally known in Europe, I enclose a paragraph I cut from a New York paper, copied from a Californian colleague, railing against the actual Government because of the delay in depositing lepers of Chinese nationality existing in San Francisco, and stimulating the actual to imitate the energy of former Government in this matter. It would be better that the hyper-civilised Americans should enquire into the traditions of Mediæval Europe as to the treatment of those afflicted with this awful disease and learn therefrom lessons of charity.—"There is a leper colony struggling into life among us. It is small now, and, perhaps, scarcely noticeable. But it is striking its roots deep into the soil. If not excised it is bound to grow and expand. Leprosy is a disease of comparatively recent importation in the Sandwich Islands. But now 2 per cent. of the whole native population are afflicted with the horrible disease in various stages of development. We have had a notion that the white race need have no fears on the subject. But that is a wholly false and unreliable assumption. There are white lepers now. Former local administrations, fully impressed with the gravity of the matter, tore up, one after the other, two leper colonies and shipped them off. But now there seems to be a disposition to settle down and accept leprosy as a feature of San Francisco life. There is a hitch between the steamship companies and the authorities. There are some defects in the law. Upon the merits of the controversy we do not propose to pass now. All that we know is nothing is being done and that the leper colony grows. Against any further paltering with this great evil we protest with all the energy that can be thrown into language. The small interests that have grown up in favour of the continuance of the leper hospital should be trampled under foot. There should be no cessation of effort till the lepers are gone."

Last evening a total eclipse of the moon occurred here. During the period of complete eclipse there raged a violent storm which commenced and ceased suddenly.

I am, Sir, yours &c.,

RICHARD GUMBLETON DAUNT, M.D. Edin.

Campinas, S. Paulo, Brazil.

Royal College of Surgeons.—The half-yearly Primary, or Anatomical and Physiological, examiuation for the Fellowship of the College was held on the 21st instant, when twenty-one candidates pre sented themselves, as against forty-four at the corresponding period of last year, to whom the following questions on *Physiology* were submitted, when they were required to answer at least three of the four questions between 10 and 1 o'clock, viz.:—1. Describe the development of the Heart and Blood-vessels. 2. Describe the Nervous Mechanism by which Blood-pressure is regulated. Give the evidence on which your statements rest. 3. Give the Histology of the Macula lutea, and describe the Blood-supply of the Retina. 4. What are the average quantities of Carbon and Nitrogen eliminated by an adult in twenty-four hours? In what forms and by what channels are they excreted? What quantity of food would compensate this loss? Prove your statements by reference to the chemical composition of food, taking Albumin as the type of Proteids, Stearine of the Hydro-carbons, and Starch of the Carbo-hydrates.

The following were the questions on *Anatomy*, when three out of the four questions were required to be answered between 3 and 6 o'clock, viz.:—1. The Scalp and Calvaria having been taken away, describe in order the parts which must be removed to expose the upper surface of the Cerebellum. The portion of brain removed is to be described in detail. 2. Describe the Dissection necessary to expose the surfaces of Bone which enter into the formation of the Temporal Fossa. 3. Describe the Vascular Supply of the Thyroid Body, giving fully the course and relations of both arteries and veins. 4. Describe the Ligaments which connect the Vertebræ together. State what movements are permitted in each region of the Spine, and the mechanism by which these movements are permitted in certain regions, and prevented or lessened in others.

COMMUNICATIONS RECEIVED—

Dr. DONALD MACALISTER, Cambridge; Dr. HERMAN, London; Dr. CLIFFORD ALLBUTT, Leeds; Mr. LAWSON TAIT, Birmingham; Dr. SHELLY, Hertford; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY, London; Mr. A. SARONSON, London; Dr. A. RABGLIATI, Bradford; Miss YATES, London; THE HON. SECRETARY OF THE PARKES MUSEUM, London; THE SECRETARY OF ST. THOMAS'S HOSPITAL, London; Mr. F. W. KIRKHAM, Southampton; Dr. J. MAUNSELL, Bath; Mr. H. J. HADRILL, London; Mr. ALEX. WHEELER, Darlington; THE EDITOR OF THE BRITISH MEDICAL JOURNAL, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE HON. SECRETARY OF THE SULLIVAN FUND, London; Miss ISABEL BURTON, Opcina; Mr. CHAS. ATKIN, Sheffield; Mr. A. E. BALL, London; Mr. J. H. MORGAN, London; Mr. JAMES BERRY, London; Mr. CHATTO, London; Dr. WILLOUGHBY, London; Mr. J. H. HEDGES, Leighton Buzzard; Mr. STAMFORD FELCE, London; THE REGISTRAR OF THE UNIVERSITY OF CAMBRIDGE; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Messrs. A. SMITH & STEVENS, London; THE SECRETARY OF THE BRITISH MEDICAL TEMPERANCE ASSOCIATION, London; THE HON. SECRETARIES OF THE ODONTOLOGICAL SOCIETY, London; Mr. WYNTER BLYTH, London; THE EDITOR OF THE CHRISTIAN MILLION, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE SANITARY ASSURANCE ASSOCIATION, London; Messrs. NEWTON & Co., London; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; THE SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. HENRY MORRIS, London; THE CLERK OF THE METROPOLITAN ASYLUMS BOARD, London; Mr. GEORGE EASTES, London; Mr. JAMES BURY, London; Mr. T. M. STONE, Wimbledon; OUR GLASGOW CORRESPONDENT; OUR DUBLIN CORRESPONDENT; Dr. BURNEY YEO, London; Mr. F. STEVENS, London.

BOOKS RECEIVED—

Report on the London Water Supply, for October, 1884—On The River and its Difficulties, by W. F. Wade, M.B., F.R.C.P.—Annual Report of the Cottage Hospital, St. Paul's Cray—China Imperial Maritime Customs—Medical Reports for the half-year ended March 31st, 1884.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—New York Medical Record—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Médical—Revista de Medicina—Revue Hygiène—El Ensayo Medico—The New Orleans Medical and Surgical Journal—Index Medicas—The Daily Free Press, November 21—The Dublin Journal of Medical Science—Nordiskt Medicinskt Arkiv—The Christian Million (Christmas Number)—The Saint Christopher Gazette—The Birkenhead News—Daylight.

APPOINTMENTS FOR THE WEEK.

Friday, November 28 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY OF LONDON, 8.30 p.m.—Adjourned discussion on Mr. Morrant Baker's Paper, "On Cases of Charcot's Joint Disease." Living cases will be exhibited at 8 p.m., as well as some illustrative specimens sent by Professor Charcot. If time permit, a "Case of Tumour of the Frontal Lobe, with few symptoms," by Dr. Hale White, will also be read.

QUEKETT MICROSCOPICAL CLUB, UNIVERSITY COLLEGE, GOWER STREET, 8 p.m.—Ordinary Meeting. W. F. Bates, "On the supposed Sexual Threads in Zygnemacea.

Saturday, November 29.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, December 1.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Ceutral London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON.—Mr. Boyce Barrow, "A Case of Gastronomy" (with Specimen); Mr. John H. Morgan, "Cyst of the Neck."

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m.—Casual Communications by Messrs. J. C. McAdam, Storer Bennett, W. Coffin, and Dr. St. George Elliott. Paper by Mr. J. Bland Sutton, F.R.C.S., "On Comparative Dental Pathology."

Tuesday, December 2.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 p.m.—Dr. Pye Smith, "Cystic Disease of Cerebellum, Kidney and Pancreas;" Dr. Lanchester, "Intussusception in an Adult Male;" Dr. Carrington, (1) "Simple Ulceration between Trachea and Œsophagus," (2) "Atrophy of the Liver" (Card); Mr. Treves, (1) "Two Specimens of Tumours of Soft Palate," (2) "Epithelioma of Bladder with Renal Calculus" (Card); Mr. Eve, "Lympho-sarcoma of the Bladder;" Mr. Poland, "Congenital Hydrocele of the Spermatic Cord;" Mr. Bowlby, (1) "Fistular Communication between Bladder and Rectum" (Card) (2) "Infiltrating Fibroma of Thyroid;" Dr. Paddison, "A Case of Charcot's Disease with Sections of the Spinal Cord" (Card). Mr. Hudson will show a new and simple "Ether Microtome."

Wednesday, December 3.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal Loudou Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central Londou Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m.—Adjourned discussion on Dr. Graily Hewitt's paper on "The Severe or so-called 'Uncontrollable' Vomiting of Pregnancy," to be opened by Dr. Robert Baines, and followed by Dr. Braxton Hicks; Dr. Potter on "A Case of Retained Product of Conception;" Dr. McKeown on "The Prevention of Ophthalmia Neonatorum and its ravages."—Specimens will be shown by Dr. Horrocks, Dr. Carter and others.

PARKES MUSEUM, 74A, MARGARET STREET, REGENT STREET.—Dr Norman Chevers, C.I.E., "On House Sanitation."

Thursday, December 4.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m.—Mr. W. S. Savory, F.R.S (Vice-President) will deliver "The Bradshaw Lecture" in the Theatre of the College.

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

SUMMARY OF CONTENTS, NOVEMBER 22.

MEDICAL TIMES

AND GAZETTE.

No. 1797. LONDON, SATURDAY, DECEMBER 6, 1884.

Contents.

CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

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

Physician to the Hospital.

LECTURE V.

The Treatment of Phthisis.

GENTLEMEN,—Our ideas with regard to the treatment and management of pulmonary consumption will necessarily be greatly influenced by our beliefs with regard to its pathology.

If we believe that pulmonary consumption is an infective disease originating in the introduction into the body of a specific organism from without, the rooting, development, and spread of which depend on its encountering a suitable soil, or an inherited predisposition for its culture and growth; if we believe this doctrine of the origin and nature of pulmonary consumption, and with the evidence before us it seems to me that we are, logically, compelled so to believe, this belief must necessarily influence our views of treatment. Much of the phraseology that has been used in connection with this subject will then appear obsolete. Such expressions as "pretubercular phthisis," "the constitutional disorder which produced the tubercle,' "phthinoplasm," references to this disease having its origin in "exhausted or lowered vitality;" these and many other familiar expressions, vague and unintelligible as for the most part they are, and making the largest possible demands on our willingness to accept shadowy generalities and unsupported hypotheses as true indications for treatment, these we can no longer accept in the sense in which they were originally advanced.

We must regard the striking evidences of defective nutrition which we encounter in this disease, and which it will tax all our resources to arrest or check, not as the cause, but as the consequence of the pulmonary affection; as a consequence, mainly, of the infective fever which attends the development of tuberculous disease in the lungs, as well as in other organs.

What, then, are the true indications which may be laid down for the treatment of pulmonary consumption? They are these:—

(1) In the first place, to prevent or amend those faults of constitution, organisation and development which predispose to the acquirement of this disease.

(2) To prevent or cure those local pulmonary affections which may induce a tendency to this disease, even where no constitutional predisposition is found to exist.

(3) To prevent the possible spread of the disease by

the conveyance of its germs from the sick to those who are necessarily brought into close contact with them.

(4) To endeavour, so far as possible, to antagonise the influence of the infective organism *in situ*, and in its action on the constitution. To attempt to hinder the progress of its development and reproduction, and its extension to the sound parts of the affected lung, and also to the sound unaffected lung, and to prevent the infection of other organs. This is what is understood by antiseptic treatment.

(5) To lessen and remove the *fever* and other constitutional disturbances dependent on the infection of the constitution, as well as on the local inflammation.

(6) To lessen and arrest the local irritation and inflammatory and catarrhal changes when evidences of such make their appearance.

(7) To improve the disturbed and defective nutrition by all the means in our power, medicinal, regimenal, climactic, &c.

(8) To relieve the various distressing symptoms that occur during the course of the malady.

(9) To diminish as far as possible the evil consequences of the several grave complications incident to its course.

There is, then, no lack of indications for treatment in this disease; indeed, no other disease, perhaps, has so many. In the following lectures I shall consider, fully, all these indications.

And first with regard to

Prophylaxis.

The prevention of pulmonary consumption may be regarded from three principal points of view.

First, the prevention of the transmission of the phthisical disposition, or tendency, from parent to offspring.

Second, the prevention of the development of the disease when the predisposition exists; and

Third, the prevention of those unhealthy conditions and circumstances of life which are known to favour the acquirement of phthisis.

(1) The hereditariness of phthisis has been placed beyond a doubt, but from the point of view of prophylaxis it is important to remember, that by the hereditary nature of phthisis, we do not mean that phthisical parents convey to their offspring a constitution which must *necessarily*, at a given period of life, develop tuberculous disease, but rather that they transmit to their children an organisation which renders them more prone than others to be attacked by phthisis.

Difficult and delicate as the task may often be, it is undoubtedly the duty of the physician, and especially of the confidential medical adviser of families, to give timely warning of the danger and distress which are almost certain to follow in the train of marriages between persons who present well-marked hereditary tendencies to tuberculous disease. It will, we believe, be generally found that the public are more disposed than they formerly were to give a thoughtful attention to such warnings. The gradual spread of sanitary science, and the diffusion of a knowledge of the laws of health throughout society, and the existence of more intelligent and more truthful views of the nature of disease will account for this.

We should, then, on all suitable occasions insist on the perils that attend the union of couples when on either side, and more especially when on both sides, there exists an inherited predisposition to phthisis.

But if we would do all that lies in our power to prevent the origin and transmission of tendencies to tuberculous disease, we must carry our teaching and our warnings still further. We should let it be generally known also that considerable risk attends the union of persons closely allied by ties of consanguinity. The tendency which the offspring of such unions manifest to develop and propagate scrofulous maladies is well established, and although the scrofulous diathesis may be more or less distinct from tubercle, yet it is generally admitted that the existence of constitutional scrofula conveys a strong tendency to tuberculous disease. We should, then, be equally firm in opposing marriages of consanguinity, but chiefly and especially when there has already been manifested in the families concerned a tendency to scrofulous or lymphatic affections.

Marriage too early or too late in life, marriage between the constitutionally feeble, between persons weakened by dissipation or excesses of all kinds, or by poverty and privation, and between the subjects of constitutional syphilis, should all be prevented, so far as we can, by judicious and timely counsel and warning, prevent them, if we would do all that can be done to prevent the generation of offspring having a tendency to become phthisical.

But, as we have already said, there are unmistakable signs that the educated classes are becoming more and more alive to these dangers, and we hear now, much more frequently than we used to formerly, of objections to marriages wholly and rightly on account of hygienic considerations.

It is false sentiment, and a mistaken kindness to allow young people, ignorant of the consequences of their act, and inexperienced in all the cares and struggles of life, to enter upon a matrimonial union when the physical condition and prospects of the contracting parties are unsatisfactory.

The prospect of the anxiety, anguish, and misery attendant on constant illness and delicacy, and premature death, should outweigh all sentimental considerations.

(2) We have next to consider the best means of preventing the development of phthisis in those persons in whom a tendency to that malady is known to exist.

An infant born with an hereditary tendency to phthisis will require the most careful management. On no account should a mother with phthisical tendencies be allowed to suckle her offspring. There is danger in this to both mother and child. There is danger of injury to the nutrition of the mother by the tax which lactation imposes on a feeble organisation and there is danger to the infant that the mammary secretions, in such cases, may be vitiated and imperfect.

For such infants a vigorous and healthy wet-nurse should be selected, and if possible it should be brought up in the free, open air of the country, rather than in the confined atmosphere of crowded cities. Frequent exposure, carefully protected, however, from chill or from too rigorous weather, to pure air and sunshine, and residence in well-ventilated, but sufficiently warm, apartments by night and by day are of much importance to such infants. Their chest and limbs should not be cramped by any tightly-fitting garments, but allowed perfect freedom of movement. The nurse should be particularly cautioned against allowing awkward attitudes, and attitudes which tend to compress the chest and to hinder its free expansion. The reclining position is best for the weakly infant, so that the weight of the head and shoulders is not thrown on the front of the chest or on the spine, as is sometimes the case when the child is carried much in the nurse's arms.

Attempts should early be made to ward off that morbid sensitiveness and vulnerability of the cutaneous surface so common in those predisposed to phthisis, and which is, in a measure, the index of, and provocative to, bronchial sensitiveness and irritability; and without making any rash and risky attempts at

hardening such as some have advised, and which, when they do no harm, probably do much good, we may yet even in the early months of infant life adopt mildly bracing measures, which may afterwards give place to a more vigorous hardening system.

For this purpose it is a good plan, after the child's morning bath, to sponge over the surface of the body rapidly with cold sea-water, or water containing sea-salt, to which a tablespoonful or two of spirits of wine, or Eau de Cologne have been added. The infant should, of course, be quickly dried, and it will usually be found that this process has a bracing and invigorating effect, especially stimulating to the functions of respiration.

It should be remembered in this connection, that a certain amount of crying is not injurious to an infant, but is often a useful gymnastic exercise to the respiratory organs, leading to a more complete ventilation and expansion of the lungs than ordinary breathing ensures.

When it is impracticable to obtain a wet-nurse, the child should be given perfectly fresh cow's milk, boiled, slightly diluted with water, and to which a little sugar of milk may be added. At the period of teething, a little beef-tea may be added to the milk, and if dentition be tardy or difficult, some preparation of lime is useful.

When, as is the case with some delicate infants, the casein of the milk coagulates into a firm indigestible curdy mass in the stomach, and sets up vomiting and diarrhœa, an excellent food is made by mixing three parts of whey with one of beef tea, and thickening with a little arrow-root.

More than ordinary care is needed in watching these children through the common ailments of childhood, and, especially in measles and whooping cough as well as in scarlet fever. Measles and whooping-cough are especially dangerous to such children, for the catarrhal and congestive attacks of the respiratory organs, which so constantly accompany these affections, are prone to linger and degenerate into, or predispose to, incurable pulmonary mischief.

After weaning, which should not be too long delayed, milk should still form the chief part of the child's food, and the digestion of the food should be carefully watched. Any tendency which may manifest itself to acidity, flatulence, vomiting, or diarrhœa should lead to a careful revision of the diet. By degrees, a small amount of animal food, which, until the child has thoroughly learnt to masticate, should always be reduced to a finely divided or pulpy condition, may be introduced. All excess of saccharine substances, should be avoided as tending to set up acid fermentations.

As soon as the child begins to take bread-stuffs, it is highly advisable not to use the over refined wheaten bread, but the *decorticated whole wheat meal bread*[1] is much more suited to the nutrient needs of the growing child.

With respect to the administration of stimulants to such young and delicate children, much difference of opinion exists. It is desirable to have no prejudices or predilections on this head. There are many, probably the majority of such children, who positively dislike all stimulating drinks, and resist taking them, I would not press them upon these, but there are other, feeble, lymphatic, pale children, to whom a small quantity of wine or sound beer seems to serve as a remarkable aid to nutrition; and we must be cautious how we allow any theoretical or sentimental objections to alcoholic stimulants of all kinds to interfere with the chief duty which here lies before us, viz., to maintain nutritive activity whenever it shows any tendency to be lowered. I consider a small quantity of good sound beer more useful than wine, but of wines I prefer a little sound Burgundy with water, or one or other of the well selected red Hungarian wines. It is only in very exceptional cases that so stroug a wine as port is advisable. In these cases, the wine must be regarded as a medicine as well as a food. Hoff's malt extract may serve as a substitute for beer.

As the child advances in years, when it has reached 5 or 6 years of age, judicious and careful attempts to brace and harden the constitution should be systematically prosecuted.

For this purpose, free exercise in the open air, wisely devised gymnastic exercises, together with the use of cold sponging, cold affusion, or cold douches should be daily employed.

The gymnastic exercises should have for their object the complete development and expansion of the chest so as to lead to the thorough inflation and ventilation of all parts of the lung, the strengthening of the respiratory muscles and the development of the muscular system generally, and the correction thereby of faulty attitudes and positions. But these exercises must not be carried to the length of causing fatigue or exciting any feverish reaction. It should always be borne in mind that their object is to promote healthy nutrition; if they excite or fatigue, they must be modified or discontinued. We have already alluded to the value of cold affusion in lessening that sensitiveness of the surface, which proves often so serious a trouble in after life, while as a direct stimulant of the respiratory function it is also of great value. It is needless to insist that cold affusion and cold douches must be applied with great care and caution to delicate children. The process of accustoming them to this treatment must be a gentle and gradual one, and it must be particularly noted whether they re-act well to this stimulant or not; if it should cause chilliness or langour and drowsiness, it had better be discontinued.

The warm weather of summer is, of course, the best season for initiating this treatment, and when once it is established it may be continued throughout the year, but, in the cold season it should always be applied in a *warm* apartment.

It is also necessary to watch the education and school-life of such children closely. Close application to study in crowded school-rooms, must be positively forbidden; overtaxing the mental powers must be carefully provided against; sharing in athletic games which, while they tend to injuriously excite the circulation, expose also to the danger of chill after such excitement, must be strictly excluded; and all faulty attitudes and positions during school studies should be corrected. R. Liebreich has invented a chair for school purposes, intended to correct the faulty attitude so frequently assumed by pupils in schools, and also a couch for reading, which seems to me well calculated not only to support the back, but also to take the weight of the arms and shoulders off the upper part of the body[2]; for when these are allowed to hang forward, as in the stooping attitude which becomes habitual to many young people, they compress the upper part of the chest, and prevent due expansion of the apices of the lungs.

There are two periods of life which have been regarded as specially dangerous for those who inherit a predisposition to phthisis. One is the period of puberty, and the other is the period between the ages of 30 and 35.

At the period of puberty, we have to guard against the depressed nutrition so often associated with the

[1] The flour for making this bread can be obtained of Pimm & Co., Upper Mills, Wandsworth.

[2] These can be obtained of Callaghan, Optician, Bond-street.

exhaustive influence of rapid growth, and we have to be on the watch lest the strength and resisting power of the individual be not seriously compromised by the yielding to evil habits in connection with the development and prominence which the sexual functions now tend to assume. A life of wholesome activity in the open air, out-of-door exercises and occupations, a nutritious but unstimulating diet as well as the provision of healthy food for the mind, and the avoidance of romantic and erotic literature; these are wise and necessary precautionary measures at this period of life.

Especially ought the health of young women to be carefully looked to at this period, for in their case, besides the dangers already indicated, there are those of periodical and vicarious congestions of organs, and particularly of the lungs, which we should do all we can to avoid.

When the strength and nutritive power seem seriously impaired by rapid growth it will be advantageous for such cases to seek a sunny climate in winter, and tonic mountain or sea air in summer; in both cases in situations where an out-of-door life is possible.

Some physicians consider the period between thirty and thirty-five as one of especial danger to those who are hereditarily predisposed to phthisis, and one during which incessant precautions are needed. No doubt at this period the pressure of life, its duties, its trials, its wearinesses, and its disappointments are felt, perhaps, by many for the first time, and exercise a depressing effect on the constitution, physically as well as morally.

Excessive yielding to sexual appetite has been regarded by some as a danger especially active at this period.[3]

The severe ordeal of pregnancy and child-bearing, and the exhaustive effect on the general nutrition of the process of lactation when the mother undertakes to suckle her offspring, and this is more commonly the case than otherwise with persons of small means, have unquestionably much to say to the frequency with which phthisis occurs amongst the hereditarily predisposed at this epoch.

(To be continued.)

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.
President of the Health Department, Social Science Association, and of the Epidemiological Society.

(Continued from page 742.)

Scorbutus.

The chapter on Hospital Gangrene[72] should be read in connection with this chapter.

Very nearly first among the truths to be recognised by the young medical man commencing practice in India, is the fact, frequently insisted upon in these pages, that scorbutic and malarious cachexia most frequently exist combined in the constitutions of his European and native patients.

Early in the publication of these notes, when speaking of Food in India, I mentioned that scurvy is generally prevalent throughout extensive tracts of Hindustan, especially Scinde and Behar; and that, everywhere else in India, the influence of a scorbutic diathesis ought to be looked for in investigating the origin and nature even of those diseases which are not generally regarded as being allied to scurvy. I mentioned that, in India and elsewhere, the wealthy, who are well able to live generously, are by no means always exempt from scorbutic cachexia, easily recognisable by those intimate with the indicia of scurvy. At a meeting of the Epidemiological Society held in December last, Dr. Colan, R.N., observed that, on his return from Nares's expedition, he observed, in England, cases of scorbutus which, but for his experience of Arctic scurvy, he would have failed to recognise. I have written so fully elsewhere upon Indian scurvy[73] that I must trust that the reader who desires to investigate the subject at large will refer to those pages. I have shown that if, with the map before us, we draw an imaginary line from Aden upwards, principally within and near the stretch of the Indian Desert, through Scinde to Mooltan, we roughly define a tract in which apparently very trifling injuries, abrasions, scalds, contusions, are liable to degenerate into ulcers of the most intractable character, and even into sloughing phagedæna, or hospital gangrene. Along this line, land scurvy is rife; but, as it appears that the malignant ulcer of the fleet, prevalent at the end of the last century, which is so fully described in Trotter's "Medicina Nautica" and which was recognised at the time as resembling ulcers prevalent in the East Indies, committed its direst ravages subsequently to the almost entire disappearance of sea scurvy, pure and simple, under the influence of lime-juice, so it is probable that these forms of ulcerative disease are often merely con generic to scurvy, seeing that they by no means invariably yield to antiscorbutic treatment. Still I believe that it may be laid down as a certain law that the subjects of these ulcers invariably have a scorbutic taint and that, consequently, antiscorbutics must always be steadily employed throughout the treatment, however obstinately the local disease may appear to resist their power.

Among these forms of ulcerative disease the principal are known as the *Aden ulcer*, *Scindh boil*, perhaps *Delhi boil* (which Dr. Gavin Milroy and Dr. John Murray regard as a form of yaws) *Gwalior ulcer*. Such forms of ulcer were also very prevalent, in association with scurvy, among our native troops during the first Burmese War in 1825. Similar ulcers have been observed as occupying a prominent place among the endemic diseases of Malacca, Penang, Singapore, Batavia, Amboyna, and the Molucca Islands, Ceylon, the Andamans, and the Malabar Coast. It may be taken as a general rule that, wherever these obstinate forms of ulceration have prevailed, syphilis and dysentery have been markedly severe, the patients being scorbutic, the former being liable to run into sloughing phagedæna, the latter often terminating as gangrenous colitis.

I have already spoken of the fact that scorbutus is generally to be anticipated and guarded against as one of the most incapacitating and destructive attendants of sieges and protracted campaigns in India. I know officers who, having become scorbutic in the second Burmese War, in 1852–53, and throughout the siege of Lucknow, have never completely shaken off the sequelæ of this grave cachexia.

It is highly noteworthy that, while districts impested with the marsh poison afford a fitting habitat to scorbutus, malarious cachexia and scurvy are, if not allied conditions, states which most readily coalesce and run into one another—with double peril to their victims. Clearly, the fevers and dysentery of seafaring men, which formed the principal subjects of

[3] Fonssagrives—"Thérapeutique de la Phthisie Pulmonaire." Deuxième édition, 1880, p. 37.

[72] Vol. i., for 1884, p. 789.

[73] Review of the Means of Preserving the Health of European Soldiers in India. "Indian Annals of Medical Science," No. 13, for 1860, pp. 589—620.

those ships' surgeons who wrote upon the "Diseases of India" late in the last century, were greatly modified, as occurring chiefly in men whose constitutions were tainted with sea scurvy.

More than forty years ago, the late Dr. H. H. Goodeve made some excellent observations upon this point, which still well deserve the attention of practitioners.[74] "The melancholy accounts of the ravages committed by scurvy found in every narrative of a long sea voyage even up to a very late period are alone sufficient to account in a great measure for the frequent occurrence of "typhoid," [*i.e.*, typhus-like] or the putrid type of fever which the old surgeons, and especially the naval ones, so much dreaded during their residence in warm climates. The miserable condition to which the sufferers were reduced by scurvy, was precisely the most unfavourable state in which they could be placed to receive the attack of a severe febrile affection. The scorbutic diathesis required only the accession of a remittent to constitute the putrid synocha of our forefathers. We consequently find the most melancholy accounts of putrid fever in the East amongst the reports of our naval surgeons. This form of fever was not, however, confined to the sea or its shores; it existed occasionally upon land, and raged with great violence."

I had much experience of sea scurvy in the crews, principally of foreign ships, entering the Port of Calcutta, up to 1866. In that year, Dr. L. H. Lees published, in the *Indian Medical Gazette*, vol. i, p. 287, an account of this disease, numerous cases of the worst description of which, in his capacity as Superintendent of the Seamen's Hospital at Akyab, he saw in vessels arriving from Aden, whither they had carried cargoes of coal from England, for the P. & O. Co.'s depôt. No vessels entering the port, with the exception of those which had called at Aden, had cases. "One vessel, the crew of which was so reduced as to be unable to work the ship, had to put back to Madras, send all the men ashore, re-engage a fresh crew, and proceed on the voyage. Four others arrived at Akyab with only the cabin occupants fit for work. As may be conceived, they with the utmost difficulty made the port at all, and I do not hesitate to say that a few days' prolongation of the voyage would have been fatal to all concerned. The other vessels were all more or less crippled by the disease."

In 1839, Mr. W. A. Green published[75] a valuable paper in which he gave cases of sea scurvy, of putro adynamic fever, and of fever complicated with severe spleen disease, with remarks to point out severally a similarity in their probable causes, in their nature, and in some of their symptoms. Mr. Green wrote from his experience at Howrah, across the Hooghly, facing Calcutta. I was one of his successors in the medical charge of that station; it is a position in which the meeting and combination of cases of malarious splenic cachexia and of sea-scurvy could best be observed when the latter disease was prevalent, as there are extensive docks, and as many seafaring men, Europeans and natives, then frequented and resided in the place. Mr. Green analyses 43 cases of ordinary sea scurvy, and 9 cases of scorbutic febrile disease, showing that between these two cachexiæ, there appears a great similarity as to their essential nature, I would say rather in several of their characteristics than in their "essential nature." You cannot give a well fed man scorbutus by locating him in a marsh, any more than you can give another ague by giving him improper rations at sea.

Twenty years later, under improved arrangements for victualling and lodging the men of our merchant navy, cases of sea scurvy were far less common in the Port of Calcutta; but only too many (one of which was fatal) came under my notice while I was in charge of the Medical College Hospital from 1861 to 1876. Most of these were, as I have already mentioned, from foreign ships.

One of the most valid maxims which an old Indian physician can offer to a young one is: *never treat a case of any severe disease in India, whether the patient be European or native—landsman or sailor—without taking at least a glance at the question, is scorbutus possibly a factor in the causation of this malady?* This advice is not undeserving the attention of home practitioners.

Writing, in his "Pathologica Indica," in 1844, the late Dr. Allan Webb, an admirable observer, insisted that among the troops serving in Bengal, spleen disease and *consequent scorbutus* are a very frequent cause of invaliding and of death. So intimate, in his opinion, is the connection between certain morbid states of the spleen and the induction of general scurvy that he appeared to consider the latter as a necessary result of the former. He says:—"Now if the spleen be as intimately concerned in forming red blood, as I have with much labour endeavoured to prove that it is, we have only to stop its functions and we shall then produce scurvy. Thus scurvy is induced by disease of the formative organs of the blood-globules, as effectually as it can be, by withholding the material from which blood is formed, by feeding the animal man upon putrid meat and bad grain, and washing down such a *pabulum vitæ* with stinking, stagnant water. In either case, the blood is not renewed; the body therefore feeds upon itself." Without literally following this eminent man's line of argument or expecting that removal of the spleen will induce scurvy, every one who has practised in India must agree with Mr. Green and him that scorbutus and splenic cachexia have many leading features in common, and that the two cachexiæ, although they are perfectly distinct entities, often prevail together in the constitutions of Indian patients.

Study of the history of Indian scurvy clearly evolves this axiom. *Scorbutus often gives deadliness to Indian fever; and Indian scurvy never rages more obstinately than among the subjects of malarious cachexia.*

The literature of *Land Scurvy* in India, as occurring principally among troops in the field and in garrison and among native prisoners in gaols, is extensive.

In 1832 a markedly scorbutic condition prevailed among the European soldiers of H.M's. 48th Regiment, stationed at Cannanore, Madras Presidency, where good vegetables were scarce and high priced.[76] In the following year there was a disastrous prevalence of scurvy in H.M's. 62nd Regiment, stationed at Bangalore and Masulipatam. There were 57 admissions and 9 deaths.[77]

Mr. R. N. Burnard[78] describes cases, as occurring during the military operations in Arracan in 1825-26, of native soldiers suffering from dysentery and burning of the feet, in whom the application of blisters to the calves of the legs produced a livid, bruised, and ecchymosed appearance; and, in one patient, caused sores which led to rapid sphacelus. Dr. John Grant published[79] an analysis of the earlier reports on scurvy. He said that he believed cases of indubitable scurvy were then landed in Calcutta from Arracan and Rangoon. Many of these sank at once, being exhausted even by the exertion of disembarkation. Dr.

[74] "Sketch of the Progress of European Medicine in the East." "Calcutta Medical and Physical Transactions," vol. viii., partii., p. 118 of Appendix.

[75] "Calcutta Medical and Physical Transactions," vol. viii., part ii., Appendix, p. 303.

[76] Dr. HENDERSON'S *Madras Quarterly Journal of Medicine*, vol. iii., p. 324.

[77] *Ibid.*, vol. i., p. 18.

[78] "Transactions of Medical and Physical Society of Calcutta," vol. iii., p. 25.

[79] *Indian Journal of Medical Science*, N.S., vol. iii., p. 647.

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Waddell described[80] scurvy, as prevailing among our European and native troops in this Burmese war of 1825. The same general symptoms characterised the disease in Europeans and in natives "swollen, loose, and livid gums, with ulcerated or sloughing edges, fœtid breath, pain and hardness of the calves of the legs, contractions of the hams, and purplish discolouration of the skin, particularly of the lower extremities. In many instances of Europeans, diarrhœa and œdema of the feet, ascites in one case and universal anasarca in another." "A scorbutic diathesis was marked in almost every case of dysentery." In all the worst native cases "the feet became œdematous, and, however apparently mild the other symptoms, the œdema was an almost certain prognostic of anasarca, hydrothorax, and death." [Beriberi.] There is a valuable report by Superintending Surgeon Heward on the prevalence of scurvy among the European and native troops engaged in this war.[81] It was observed that "the disease which so generally afflicted the European soldiers, and with such fatal visitation, was dysentery combined with a scorbutic taint of constitution."

Ulcers became numerous, greatly more so among the natives than the Europeans. The smallest scratch or abrasion of skin degenerated into an ulcer, in a few cases among the Sepoys passing into the condition of "hospital ulcer." The duties of the men in the field were very trying and fatiguing. The diet of the Europeans consisted entirely of salt provisions, with biscuits or rice, "but without any admixture of vegetable food." "Little or no fruit was procurable at Rangoon, and the only vegetable available to the troops was wild spinach or country greens, and that even in a very limited quantity." *Provision of lime-juice for the campaign appears never to have been dreamt of.*

(*To be continued.*)

NOTES ON THE CAUSATION OF LABOUR.

By LAWSON TAIT, F.R.C.S.

I HAVE been greatly interested in the remarkably thoughtful paper of Dr. C. E. Shelly[1] on this subject, and I should be glad to be allowed to place before your readers, for the consideration of those who are interested in the subject, a few difficulties which have occurred to me concerning all the theories which have so far been advanced and which are admirably summarised by Dr. Shelly.

These difficulties have arisen from the consideration of the relation borne by the facts of the curious experiments performed by Nature herself in diseased conditions, which are now far more familiar to us than they were in the days when abdominal surgery had not achieved its recent advances.

My chief and initial difficulty is that the first step in the syllogism worked out in Dr. Shelly's conclusions is entirely unsupported by evidence which is before me in increasing quantities, some of which I have published already in your columns and much of which is under consideration for future display. In the paper on the "Ovular Theory of Menstruation," published in the *Medical Times and Gazette* early in the present year, I submitted a series of observations which, to say the least of it, raise a very great difficulty concerning the statements so often made, and repeated by Dr. Shelly, that "ovulation begets periodical congestion of the generative organs." The evidence on this question, constantly growing in my experience, to me conclusively establishes that the ripening and bursting of the Graafian follicles has nothing whatever to do with the periodical phenomena grouped under the term of menstruation. Whether I be right or not in my suspicion that the immediate agent in this exists in or about the Fallopian tube, it is perfectly certain it is not in the ovary; in fact, if I may here anticipate something which I believe I shall have to say when next I publish on this question, I think I may venture to prophesy that upon the subject of ovulation we shall have to abandon a great deal of what we have assumed concerning it, more particularly concerning the period of time occupied by the maturation of the follicles. I entirely agree with Dr. Shelly's conclusion that mere distension of the uterus can have no kind of influence in directing the period at which gestation is terminated. This requires no other proof than the pathological experiment of hydramnios. I have seen the abdomen distended by a collection of amniotic fluid within the uterus to an extent larger than I have ever seen it distended by an ovarian tumour, save perhaps in two cases, and yet at the time I saw these patients there was not the slightest indication of the approach of labour. That had to be brought about by artificial means, yet when induced, contraction in the uterine walls came on as rapidly and as vigorously as if the period of gestation had been the end of the ninth instead of the middle of the fifth and beginning of the seventh months respectively as was the actual fact.

A difficulty which I have already pointed out as being a very important argument against the ovular theory of menstruation is that removing one ovary does not distuab the periodicity and frequency either of menstruation or labour. Women who have had one ovary removed menstruate as regularly, have apparently as many children, and have the same periods of gestation as those who have been in no way interfered with. And I think it is not too much to assume that if the ovaries had anything to do with the periodicity of either or of both of these functions, the removal of one would show it in some way. More than this, operations for the removal of cystic ovaries performed in many instances during pregnancy rarely, if ever, interfere with the continuation of that pregnancy; not even as in one case in my own practice, where I removed both ovaries at the fourth month of pregnancy, the woman going on to her full time and being delivered in the ordinary way.

Dr. Shelly might of course account for this by the extremely interesting and valuable suggestion which he has made concerning the influences of an inherited tendency to produce the termination of labour at the beginning of the tenth month, and I am quite prepared to admit that something of this may be accepted. But against this explanation of Dr. Shelly's this question can be directed—how can we explain the acquisition of this inherited tendency? It must have had a determining cause, and for the purpose of the present discussion it is not essential to know or even to speculate upon the cause which brought about the tendency for the particular time at which gestation is terminated. It still leaves us entirely where we were in our endeavours to ascertain what is the particular mechanism by which this inherited tendency is put into action.

Let me just point out another difficulty concerning the ovular theory. Quoting Pflüger, Dr. Shelly says, "The slow continuous enlargement of the Graafian follicles causes the state of irritation in the terminations of the nerves embedded in the rigid stroma of the ovary; this irritation is at first too slight to beget an immediate reflex action; but at intervals—which

[80] "Transactions of Medical and Physical Society," vol. iii., p. 240.
[81] *Madras Quarterly Medical Journal*, vol. i., pp. 203–9.
[1] See *Medical Times*, Oct. 18, 1884.

are practically in consequence of the mode in which the producing causes act periodical—the sum of this irritation becomes so great as to cause a reflex nervous response which takes the form of a considerable arterial congestion of the genital organs. This suddenly increased afflux of blood produces a double effect."

After saying what is the fact, that this is merely raising a cloud of words to cover our ignorance, let me point out that the investigation of injected specimens of ovarian cystoma affords conclusive proof that the afflux of blood in them is, so far as increased size and number of blood vessels can demonstrate this, much greater than is seen in the ripening Graafian follicles and the mere fact of the continuous distension of the follicular cavity by pathological products, obliges us to assume that the intramural pressure is correspondingly greater than in the healthy follicles. I think, therefore, that I am justified in saying that the more we investigate the question the greater the difficulty becomes in accepting the assumption that ovular influences have any effect upon these periodical functions.

Of the other theories examined by Dr. Shelly it is hardly necessary to speak at length, because he shows the difficulty of accepting them, from their being as they are little more than crowds of words raised to cover ignorance and affording no kind of explanation of the phenomena. I desire, however, to say just one word as to the progress and partial separation which is alleged to occur between the decidua and the uterine walls during the later period of pregnancy, for it seems to me that a good deal of mistake has occurred here in the direction of putting cause for effect.

I have often felt, in thinking this matter over that a careful study of the phenomena of extra-uterine pregnancy would probably lead us into the right path of investigation, even if it did not completely solve the riddle. As far as the theory which attributes to the separating of the decidua the causation of labour, I have satisfied myself that the observations are erroneous. Some three years ago I had the opportunity of watching a case of extra-uterine pregnancy, of operating on it before the birth of the child, and, unfortunately, of seeing the *post-mortem* afterwards of the mother.

In various contributions to the clinical history of pathology on this curious condition, I have pointed out that a persistent feature in the history of the case is the occurrence of all the phenomena of labour just as if the fœtus was in the uterus. In the case of which I speak, I watched this false labour with very great care because I was anxious to save both mother and child, and I felt that it would be a very risky thing to operate during its existence. I felt strong contractions in the uterus going on exactly as if the real labour were proceeding, and the condition of the passages was entirely in harmony with this. So soon as the false labour was over, I removed the child, living, and he is now growing up. As I have said, the mother died, and I found when the uterus was removed that the decidual lining was absolutely undisturbed, and I could not discover on the most careful examination that it presented any appearance whatever of the so-called fatty degeneration. In fact this fatty degeneration of the decidua I believe to be quite as much a myth as the so-called fatty degeneration of the placenta, concerning which I said a good deal in a paper published in the "Transactions of the Obstetrical Society" in 1875. So far of course this is only an isolated observation, but it goes a long way to cast doubt upon a theory which has had a very wide acceptance chiefly because it fell in with, or rather grew out of, a view of pathology which was very fashionable some five and twenty years ago, but which now obtains but little acceptance.

This leads me to speak very briefly on a phenomena in which I believe will yet be found the explanation of the process of the termination of natural labour; though I am bound to say that at present I do not see my way any clearer to place a new theory before your readers for acceptance than I do to argue in favour of any one of the seven theories examined by Dr. Shelly. I allude to the curious rhythmical contraction of the pregnant uterus, first discovered by Dr. Braxton Hicks, and which occurs in the uterus throughout pregnancy from the very earliest time at which observations can be made with any accuracy upon the uterus, up to the very time when labour begins. I have satisfied myself of the occurrence of this contraction of the uterus when it was certainly not more than three months pregnant, and I have felt it within 30 minutes of the occurrence of the first labour pain.

It has ever been to me a matter of surprise that these rhythmical contractions have received the small amount of attention which has certainly been their share. They constitute the most certain sign of pregnancy with which I am acquainted, because they can always be felt; and sometimes even the most careful search fails to reveal to the practised ear the sounds of the fœtal heart. Again, on the other hand, I know of more than one case where competent observers have declared that they have heard the heart sounds of the child in cases where no child has existed. It is not difficult to imagine that with these strong rhythmical contractions persistently occurring, apparently throughout the whole period or nearly the whole period of gestation, that the secret of the immediate causes of labour will be discovered in connection with them. The uterine contractions which expel the child are nothing more than an exaggeration of these movements of the uterine walls, which have become increasingly frequent and increasingly powerful throughout the period of pregnancy.

Another matter of much less importance in the present discussion is one, however, to which I should like to draw attention, because I think Dr. Shelly has not perused the evidence, and line of argument based upon it, which I have advanced in the chapter on extra-uterine pregnancy in the recent edition of my book "Diseases of the Ovary," to the effect that we can no longer accept the statements that there is such a thing as an ovarian pregnancy, or that extra-uterine pregnancy ever occurs in any other way than from an adhesion of the fertilized ovum on the lining surface of the Fallopian tube.

In connection with the statement made by Dr. Shelly "that in cases of extra-uterine gestation the uterus itself does not usually undergo to any marked extent the development, anatomical and physiological, which attends a normal pregnancy, especially when the pregnancy is ovarian, abdominal or truly tubal, the increase in bulk of the uterus, and the formation of the decidua follow but in a slight degree, and the process usually soon subsides," let me say that I have now twice operated upon patients at the very end of gestation where the child has been extra-uterine, and in both the uterus had increased in size so markedly as to present in its bulk a very singular resemblance to the uterus immediately after labour. In every one of the seven other cases of extra uterine pregnancy upon which I have operated, the uterus has been markedly larger than normal. In many of them, if not in all, it had clearly undergone proportional evolution, as in some of the cases months had elapsed since the occurrence of the false labour. I think we may assume this involution, for the death of the child is always followed by the absorption of the liquor amnii, and contraction of the cyst round the fœtus.

From a study of the subject generally for now a

considerable number of years there are one or two other points upon which I have arrived at conclusions at variance with those advanced by Dr. Shelly. I cannot, for instance, in any way admit that abortion and miscarriage occur almost invariably at a period corresponding to the menstrual epoch; in fact, as an abortion or a miscarriage is a proceeding which generally occupies a somewhat protracted time, from its start to its finish, it is absolutely impossible to predicate that it has any such correspondence at all; and in a few instances which have come under my notice where it has occupied but a very short time, the evidence has been altogether against this view.

Again, in the case of the lower animals, or at least such of them as have no distinct œstrus dependent upon seasons, as is the case amongst the stags, there seems to be no kind of periodicity in the œstrus. This is certainly the case with the cat, an animal which does not allow its œstrus to pass without evidence. I have watched a large number of these animals for many years past, for the purpose of the investigation of this and one or two other points which are included in the paper in your own columns to which I have already alluded. Your readers will there find some arguments well worthy of attention, pointing to the conclusion that the œstrus and menstruation are wholly different and entirely independent functions, menstruation being limited absolutely, in so far as we know, to the human race.

In conclusion let me say that I think all who are interested in this subject are much indebted to Dr. Shelly for the paper he has published and for the recognition of the very important point, hitherto entirely overlooked, in the possibility of the periods of gestation in various animals being directed by an inherited tendency, produced certainly by circumstances governing their success in the struggle for existence, circumstances as yet quite unknown to us. But this does not seem to me to clear up in the least the riddle, the solution of which we are seeking—that of the immediate mechanism by which the termination of normal gestation is secured.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

(Under the care of Mr. RICKMAN GODLEE.)

(We are indebted for the notes of these cases to Mr. MONTAGUE WILLIAMS, Registrar.)

A CASE OF ACUTE TETANY—RECOVERY.

J. H., aged 9 years, was admitted into Barclay Ward with this history. A fortnight before admission, the mother told us, the boy complained of pain and stiffness in the back and afterwards of difficulty in opening the jaw. When he presented himself as an outpatient on Sept. 8th, the jaw was in a condition of trismus, the tip of the tongue could alone be protruded. When lying in a horizontal position the patient was unable to rise to the erect. The posterior spinal muscles were in a condition of tonic spasm. The spine was arched forwards and he walked with a bowed head. Purgatives were prescribed for him, with instructions to come up again if worse.

On the 11th he was again brought. He was now unable to stand at all. The jaw was in a firmer condition of trismus, and the abdominal muscles as well as the spinal muscles in a condition of tonic spasm. No history was given of any acute specific disease, injury, dog-bite, vermes, or discharge from nose or ear. Nothing of interest could be gathered from the family history.

On Admission.—Patient is a muscular, and fairly well-nourished, dark-haired boy. He is quite intelligent, talking and answering questions intelligibly. The pupils are dilated and act to light. The jaw is in a condition of trismus. The abdominal muscles, anterior and posterior cervical muscles with the spinal muscles are in a condition of tonic spasm. In consistency they are hard, knotted and cord-like. He is unable to walk, and when standing the spine is considerably arched anteriorly (kyphosis). When lying in bed there is considerable lordosis. Slight priaprism is also noted.

When the trunk-root of any given nerve is irritated by pressure or otherwise, the muscles directly supplied by it are thrown into violent spasm. When moved on to one or the other side, the side which does not touch the bed is spasmodically and tonically disturbed, whilst the muscles of the opposite side are generally flabby and have no spasm. He swallows small quantities of food administered with a spoon; drinking from a vessel produces an attack of choking almost immediately. Pulmonary percussion note unimpaired. Vesicular murmur normal. Cardiac physical signs healthy. Hepatic and splenic areas not exaggerated. The tongue is coated, and indented by the teeth. The bowels are obstinately constipated. The temperature is 99°, the pulse 90, regular, compressible and of equal volume. There is no evidence of any accidental wound. He was ordered to be dry-cupped this morning down the spine. A simple enema was administered; and he is fed frequently with egg and milk.

The evening note states that in his sleep he cries out lustily, complaining of cramps in one or more extremities, which said member is generally found rigid and in a condition of tonic spasm. Bowels open. He sleeps fairly well.

On the 14th.—Has had several marked fits of rigidity during the night, slight opisthotonos, well-marked priapism. Lies tranquil in intervals. When asleep the abdominal muscles are generally found in a condition of tonic spasm; and when carefully watching him one or more muscles spontaneously become rigid and hard. Bowels still constipated.

On the 17th.—The abdominal muscles and hamstrings with the jaw muscles are still in a condition of tonic spasm. Had one attack of rigidity during the night. Is taking nourishment well. Is much better.

On the 25th.—Is able to sit up in bed, cannot stand however without immediately falling. When attempts are made to remain in the erect posture the muscles generally of the trunk and extremities become rigid. The sterno-mastoids, platysma, and the abdominal recti muscles are still tense and prominent.

On the 30th.—Is able to walk in a shuffling manner, the spine being arched anteriorly and the head bowed. The jaw is trismic, and the abdominal muscles in a condition of tonic spasm. Can feed himself; sleeps quietly at night. Was sent home.

On October 14 he presented himself as an outpatient; he walked in with ease, the jaw was no longer in a condition of trismus, the abdominal muscles alone were a little rigid when touched. He expressed himself as feeling quite well. He is able to run and his sleep at night is undisturbed. Takes his usual nourishment and goes to school.

SHEFFIELD GENERAL INFIRMARY.

COMPOUND COMMINUTED FRACTURE OF FRONTAL BONE — COMPRESSION — TREPHINING — IMMEDIATE RELIEF — COMPLETE HEALING OF THE WOUND—SUBSEQUENT ABSCESS IN THE BRAIN — DEATH—AUTOPSY.

(Under the care of Mr. BARBER.)

(Reported by CHARLES ATKIN, F.R.C.S., House Surgeon.)

J. W., aged 60, was admitted on May 12th, 1884, at 6 p.m., in an insensible condition. He had been struck an hour and a half before on the forehead by a chain thrown from a joist. It was stated that he did not immediately fall but staggered, told a mate that he could not see, and walked with assistance to a druggist's 400 yards off. The wound being plastered, he then walked home, sat down, asked for something to drink, and in a quarter of an hour was found to be quite insensible, struggling with widely staring eyes, and moaning incoherently. His struggles were so violent that it took four men to hold him down. On admittance a contused wound 1½ inches long was found in the centre of the forehead, the bone was comminuted, two angular fragments below being driven forcibly in and under the upper projecting edge, there was some bleeding but the fragments were so tightly jammed in that it was doubtful whether any blood could have got from the outside into the cavity of the head.

The man was perfectly insensible, with stertorous breathing, flushed face, insensitive pupils midway between contraction and dilatation, pulse full and quick, twitchings of the mouth, face, eyelids and extremities, which he otherwise did not voluntarily move.

At 7.30, three hours after the accident, Mr. Barber removed a semicircular piece from the projecting edge of bone above and four or five loose pieces were removed; there was little hæmorrhage, and the dura mater was apparently uninjured.

Before he was removed from the table, the breathing became normal, and he was evidently sensitive to pain.

The following morning he was perfectly sensible, answered all questions correctly, and did what he was desired to. The wound was lightly dressed with carbolised oil lint. The temperature was under 100°.

The second day after the operation he became delirious, struggling and attempting to pull the dressings off his head and get out of bed. The temperature was 102°, the pulse being very full and strong. He was bled to the amount of 8 ozs., and a chloral draught given. He slept comfortably, and on the third morning was perfectly easy, and had no twitchings. He was sensible, with full use of his limbs and sphincters with only a slight purulent discharge from the wound, pulse 90.

He went on uninterruptedly well, the wound having completely healed till the 5th of June, 24 days after the accident, when he was found out of bed in the early morning, attempting to walk downstairs in his nightdress; he rambled and appeared quite stupid, but had no elevation of temperature or pulse, nor did he make any complaint. Gradually he became more incoherent, yet retaining his sight, hearing, and understanding till nearly the last.

Becoming quite comatose on the 11th of June, the wound was cautiously opened and explored, but no foreign body or pus was found. He died on the 12th, 31 days after the accident.

At the *post-mortem* a small abscess was found in the frontal lobe of the left hemisphere. It did not communicate with the ventricles or with the meninges; the former, however, were over full of fluid, whilst the latter were quite normal.

Remarks.—The symptoms coming on half an hour after the accident were not caused by the pressure of any effusion of blood or clot, but were no doubt due to the depressed bones, plus the hyperæmia; the removal of the pressure for a time cured the symptoms, only to recur, however, when the reactive congestion became excessive. The beneficial effect of the venesection was well marked. The abscess in the substance of the anterior lobe appears to have resulted more from bruising than from communication with the wound, or from infiltration through the dura mater, for there was no adhesive meningitis between the membrane and the subjacent brain. It suggests, however, the advisability of delaying the healing of a wound communicating with the cranial cavity until all secretions have had time to drain away.

Medical Times and Gazette.

SATURDAY, DECEMBER 6, 1884.

THE meeting of the Clinical Society on November 28th will long be memorable in the annals of the Society. The prospect of renewed discussion on the nature of the so-called Charcot's joint disease in locomotor ataxy, had brought together the *élite* of the profession to hear or take part in the debate; and members had sent for exhibition a collection of living specimens of the disease in all its varied forms, such as has, probably, never before been equalled or even approached. Besides these, a considerable number of pathological specimens were also on view, and M. Charcot had sent over a series of his own specimens and casts, which made together an unique collection. The whole suite of rooms was thrown open, and only just sufficed for the large concourse of members who assembled. Mr. Barwell opened the discussion with a survey of the chief pathological characteristics of the two diseases, as generally given in books. Sir James Paget followed with one of those delightful philosophical speeches for which he is so celebrated. He answered one of the most interesting of the points raised by Mr. Baker—Is the disease a new one? by proving that the disease is not an old one. As to its exact nature, Sir James regarded it not as a distinct entity, but as "a new compound of diseases, appearing only at a time when, we know not by what external conditions, all these constituents are met with in the same person." Because there are certain broad differences between typical rheumatic arthritis and "Charcot's disease" it would be unwise to assume that in locomotor ataxy there is no measure whatever of rheumatic arthritis; syphilis, too, is no doubt an element in many cases, and he could hardly doubt that it would modify the nerve disease, as well as the joint disease, and lead to a "mingled disease." Dr. Ord considered that there are strong evidences of a neurotic influence "direct or reflex," being the main, if not the sole agent. Professor Humphry thought this a disease of which "we, in the olden time" knew nothing. He agreed as

to its probable compound nature. Mr. Hutchinson, once a firm believer that Charcot had described a new disease, due to active interference of the nervous system, had lately changed his opinion, and now regarded the nerve influence as permissive, rather than causative. Mr. Hulke regarded the disease as a variety of chronic rheumatic arthritis associated with nerve disease, but not standing in any ætiological connection therewith. At this point the discussion was adjourned to the next meeting, which will take place on the 12th instant.

At the Medical Society on Monday last, Mr. Barrow related a case of malignant disease of the œsophagus, in which he performed the operation of gastrostomy; the patient living comfortably for four months after, and finally dying of acute blood-poisoning. The operation, performed with antiseptic precautions, was carried out as as follows:—The peritonæal cavity having been opened by an incision along the left margin of the thorax, the anterior wall of the stomach was drawn into the wound, a portion pinched up by the finger and thumb, and transfixed by two hare-lip pins, running parallel to each other, half an inch apart, at right angles to the skin wound. The projecting ends of the pins were left resting upon the abdominal wall and margin of the thorax, and were the only means adopted for securing the stomach in position. The edges of the abdominal wound were then closely and accurately brought together by catgut sutures around the protruding stomach. The advantages claimed were simplicity of detail, rapidity of operation, and the secure maintenance of the peritonæal surfaces in contact even during movements of vomiting. Mr. Morgan then read a paper on cysts of the neck. After alluding to the interest which belonged to the origin and development of cysts in this region, he classified them under two headings, viz., those which are the result of some change of condition in parts previously healthy, and those which may be said to arise from developmental errors. Under the first were classed bursal tumours and hydrocele of the neck, and under the second, congenital cystic hygroma and sebaceous cysts. Hydatids were alluded to as occurring in this as in other regions of the body, and the clinical and pathological characteristics of the other varieties were discussed, together with the several methods of treatment. Instances of each variety were detailed which had come under the author's experience. The paper concluded with an account of the sebaceous cysts which are found deeply placed, and which are supposed to be relics of the existence of the branchial arches of the fœtus, several cases of which had lately been operated upon by the writer.

The meeting of the Pathological Society last Tuesday was not so well attended as usual, though there was no lack of material. Dr. Pye-Smith recounted an interesting case of cyst in the cerebellum with multiple cysts in the pancreas and kidneys, and discussed at some length the mode of formation and pathological significance of these cysts. Dr. Lanchester showed a very rare specimen, an intus-susception of the rectum in an adult, the symptoms of which had been chiefly remarkable for their mildness. Dr. Carrington showed what he believed to be a case of simple ulceration of the trachea and œsophagus following exposure to the vapour of carbonate of ammonia. Several of the speakers suggested that there had been some new growth at the bottom of it, but of this there was no proof. Mr. Treves communicated two cases of primary tumour of the soft palate, one supposed to be sarcomatous, the other carcinomatous; they were referred to the Morbid Growths Committee. He also exhibited a most unique case in the way of congenital anomalies in a being who calls himself the elephant-man, who had in addition to an enormous hypertrophy of the right upper limb, several large exostoses on his apparently hydrocephalic skull, and a two-fold skin eruption, partly papillomatous and partly of an obscure nature scattered over his trunk and limbs. There were several card specimens.

The usual meeting of the Obstetrical Society was held on Wednesday evening. The business of the night was the adjourned discussion upon Dr. Graily Hewitt's paper on the uncontrollable vomiting of pregnancy. Dr. Hewitt thinks this condition due, like most other diseases peculiar to women, to flexion or version of the uterus. The debate on the subject was opened by Dr. Barnes, who spoke at great length, expounding theoretical views familiar to readers of his works. Dr. Hicks, who followed, called attention to the great utility of morphia in these cases, and aptly characterised Dr. Barnes' remarks as transcendental. The speeches of the evening were those of Dr. Matthews Duncan and Dr. Playfair. The former of these gentlemen called attention to the researches of Hecker and others into degeneration of liver and kidneys in association with pregnancy, and the association of severe and intractable vomiting with such changes. The cases of fatal vomiting he believed to be of this kind, and he drew a distinction between such cases of "pernicious" vomiting dependent upon degenerative changes in important organs, and the ordinary vomiting of healthy pregnancy, the latter, although often severe, never being fatal, and being so capricious in its onset and decline that every remedy used was sometimes followed by cessation of the vomiting. But no drug or any other treatment could be relied on to cure, and only very weak-minded persons could regard the occasional cessation of vomiting after treatment as proof that the treatment was the cause of the improvement. The drug that seemed to him to do most good was atropia, and he endorsed Dr. Hicks' praise of morphia. Dr. Playfair spoke in opposition to Dr. Hewitt's views, and humorously "chaffed" him (if we may be pardoned the expression) on the true British pluck with which he rode his hobby-horse (flexion of the uterus) at every obstacle. Dr. Hewitt replied ably and temperately to his various critics.

We wish to draw especial attention to the admirable and timely remarks of Professor Nothnagel, on the indiscriminate use of antipyretic drugs, which appear in our report of a recent meeting of the Vienna Society of Physicians. It will be paying no more than a just

compliment to many of our readers to predict that they will read these remarks with cordial appreciation and agreement. The meddlesome school of therapeutists is quite as rampant in England as it appears to be in Germany, and though it would be too much to hope that Prof. Nothnagel's remonstrance will induce the extreme wing of that school to lay aside, or to use with greater caution, the powerful and double-edged weapons which science has placed in their hands, it is quite probable that his remarks may have some influence on the large body of practitioners who are constantly hovering between credulity and scepticism. Bad as is the symptomatic treatment of the chemist or herbalist, who has one remedy for a cough, whether it be from larynx or lung, and one specific for an eruption, whether it be a symptom of great or small pox, far less excusable is the symptomatic treatment of the young physician, whose first thought and impulse when he sights a symptom is to hastily pick up a weapon wherewith to bring it down. Why, cookery or golf-playing is nearer to science than that kind of medicine! If we had our will we would send back these adventurous knights-errant of the hypodermic syringe to study the works of Thomas Sydenham, of which we have attempted, for their benefit, to give brief abstract and reverent praise in another column. From him, perhaps, they might learn to appreciate the truth sung by his great contemporary, "They also serve who only stand and wait."

At a special general meeting of the Liverpool Medical Institute on the 27th ult., it was resolved to raise a fund for the purpose of reimbursing Drs. Whittle and Hutchinson the expenses, amounting to 470*l.*, entailed upon them by the action of Good *v.* Whittle and others. It will be remembered that the action was brought against them last summer for conspiracy against, unlawful detention of, and want of care in certifying as a lunatic, a certain Mrs. Good. After a five days trial before a special jury, a verdict with costs was given for the defendants upon all counts of the indictment, but the plaintiff will not be able to meet the defendants' costs, and they will have to meet them themselves. The profession in Liverpool have decided that this ought not to be, and they have not only subscribed liberally themselves, but have appointed a strong and representative committee, with a view of seeking the support and sympathy of the profession generally, which we are sure will not be found wanting.

In Scotland the "overpressure" question appears to be entering a new phase. It is admitted, even by Dr. Crichton Browne, that there is very little overpressure in Scottish elementary schools; and Dr. Batty Tuke, who has recently been visiting the Edinburgh Board Schools, finds that "the disease newly invented in London, and called 'Board School headache,' is unknown." Dr. Tuke even goes further, and though admitting the existence of a certain amount of over pressure in England, characterises the complaint that the State is educating people into insanity as "one of those wild expressions which defeats its own aim and object." But if there is no overpressure in Scotland amongst children, there appears to be a deplorable amount of it among growing girls of the better class. Dr. Keiller recently devoted a whole address—the last of his course of Morison lectures—to the subject, and his strictures have been confirmed in several letters addressed to the *Scotsman*. Dr. Keiller spoke strongly because he feels strongly on the matter, "knowing that the highly-forced education of our time is often at the very root of the first breaking down of the health of young girls, by not only inducing various forms and degrees of early neurosis, but by stamping on their developing natures features of diminishing strength, and that at an age when health and strength, when physical building up and fresh nerve force and brain power, instead of being in any way exhausted, should be carefully tended as being of vital importance to their ultimate welfare." Dr. James Carmichael thoroughly endorses Dr. Keiller's views, and inculcates especial caution in imposing brain work on growing girls, as the evil effects are not immediate, but remote:—"A girl's general health does not appear to suffer when she is at school, but in after life when she attains to womanhood, and the strain of maternal duties are imposed upon her. It is then that she is so often found unequal to the task." Mr. Balsillie, again, writing from the educationalist's point of view, admits the existence of serious overpressure in secondary schools, especially among girls, as "a fact well enough known already," and not requiring further proof. It will be a curious commentary on our modern progress if it should turn out after all that the dogged conservatism of the upper classes has empirically, and without any help from science, found out the education which, both in the case of boys and girls, is most in harmony with the teachings of physiology. And yet it would appear that Eton and its feminine correlatives are almost the only places in which Giant Overpressure has not yet found any victims.

At the meeting of the Nenagh Board of Poor Law Guardians, held on Friday, November 28th, a letter was read from the Local Government Board for Ireland, sanctioning the payment of the Medical Officers of Health in the Union at the rate of *two shillings per house* for each house inspected and reported upon by them under the provisions of the Labourers' (Ireland) Act. The clerk also read a communication from the Dispensary Medical Officers (who are also Medical Officers of Health for their respective districts under the Public Health (Ireland) Act, 1878), expressive of their surprise at the offer of such miserable remuneration for responsible and onerous duties. The letter represented the conviction of the medical officers that the claim furnished by them—half a guinea a cottage—was reasonable in amount and well-earned. With this opinion we heartily concur, and we are sorry that the Irish Local Government Board should, by their action on this occasion, once more have succeeded in turning into ridicule the sanitary organisation of the sister island.

Mr. Victor Horsley, the recently appointed professor-superintendent of the Brown Institution, will

give his first course of lectures on December 12th, 15th, 17th, 19th, and 22nd, all but the last being delivered as usual in the theatre of the University of London, Burlington Gardens, at 5 p.m. The subject of the first two will be "The Thyroid Gland: its Relation to the Pathology of Myxœdema and Cretinism, to the Surgical Treatment of Goitre, and to the General Nutrition of the Body." The third lecture will be on "Simple Traumatic Fever, based on 160 Cases of Simple Fracture," and the subject of the fourth is "Urethral Fever." The fifth lecture will be a "Practical Exposition of the Work done at the Brown Institution," and will be delivered there at 3 p.m. We may mention, as a novelty, that Professor Horsley has produced myxœdema artificially, and will demonstrate the same during the lectures on the 12th and 15th of December.

With the examination for the Fellowship of the Royal College of Surgeons, which has just ended, we regret to say, Mr. Savory terminates his association with the College as an examiner. There is no disguising the fact that this is a great loss to the Court, and one which can with difficulty, if at all, be compensated. No doubt, however, the Council will do its best to fill the gap by the appointment of a Fellow of approved skill in the duties required of him. To be a good examiner it is not enough to be a sound practical surgeon or well-read in all the literature of the profession. A good examiner is, like a poet, born to the art. And as Spenser is the poet whose art poets themselves are supposed chiefly to study, so Mr. Savory's style as an examiner might well be studied by examiners. His questions were always straight to the point and uninvolved; cleanly put, they required a clean answer. We have never met with his equal in an examination-room. A student knowing his work had no need to fear being placed opposite to Mr. Savory, for he was as certain to recognise a good man as to turn inside out an empty one. It was a treat to hear him examining a candidate who was, so to speak, his match; he would get from him the utmost information obtainable. He knew a good man when he met one and never failed to appreciate him. Possibly Mr. Savory's standard was somewhat higher than that of others, though speaking as outsiders, and as only occasional visitors to the examinations, we must express ourselves with diffidence on that point. This much, however, is certain, that no examination with which he was associated would be allowed to suffer deterioration. Thus, after many years of work as an examiner in physiology, anatomy, zoology, and surgery, this particular path in Mr. Savory's illustrious career comes to an end. Thereby he gains a well-earned rest, and will be able, with less strain, to apply his energy to the affairs of the College, to private practice, and, we will venture to hope, to literary work in connection with the profession of surgery.

Our Paris correspondent writes:—The cholera seems to be dying out in Paris, and although the public authorities have ceased publishing official *bulletins* of the number of cases, and of the number of deaths which occur daily, some notion of the present state of things may be gathered from hospital statistics, since by far the greater number of patients have been removed to the special wards provided for their reception. From the 22nd to the 30th of November, only 66 cases were received in the hospitals of Paris; the number of deaths was 54, but most of these were occasioned by attacks of the disease which occurred at a previous date. From the beginning of the epidemic up to the present time (4th November to 1st December 1884), the whole number of cases treated in the Paris hospitals has amounted to 1,037. There have been 565 deaths, giving a proportion of 54·48 per cent. These figures, taken from a paper by M. Emile Rivière, seem rather unfavourable to the method of treatment carried out by Professor Hayem at St. Antoine. The injection of a solution according to the subjoined formula:—

Chloride of Sodium—5 grammes.
Sulphate of Sodium—10 grammes.
Distilled water—1,000 grammes.
The quantity injected amounts in general to 2,500 grammes (in adults).

has given him twenty cures out of 100 cases, according to his own statement. The mortality, therefore, amounted to 80 per cent., a much larger figure than that which results from ordinary methods of treatment.

Dr. Bergeron was elected Vice-President of the Paris Academy of Medicine, vice Fauvel deceased, on the 27th November last. At the same meeting, Dr. Charpentier was elected a member of the section of midwifery. The chair of children's diseases at the Faculty of Paris has just been declared vacant. It is universally believed that Dr. Graucher, well known to the public for his microscopical researches on tuberculosis, will be the successful candidate.

While M. Pasteur is absent in Brazil investigating yellow fever, he will, the *Union Médicale* observes, be spared the maledictions of the inhabitants of Villeneuf-l'Etange and other localities near Paris, for having turned out among them, as they allege, numbers of mad dogs. Of course, these are in reality dogs which have been rendered proof against rabies by inoculation with attenuated rabies virus. Moreover, these dogs are not turned loose, harmless as they are supposed to have been rendered, but are under effectual surveillance. However this may be, several communes in place of associating themselves with M. Pasteur's discoveries, and offering facilities for their pursuit, regard the arrival of the dogs as a calamity, and are opposing their installation as violently as they would the establishment of an industry prejudicial to the public health.

The iron will of Prince Bismarck has succeeded in forcing Dr. Schweninger, in gratitude for his having cured him and his son of a troublesome obesity, as an extemporised professor in the Berlin Faculty of Medicine. The Faculty protested in vain, both orally and in writing, and in spite of a deputation, composed of Professors Virchow, Dubois-Reymond, and Hirsch,

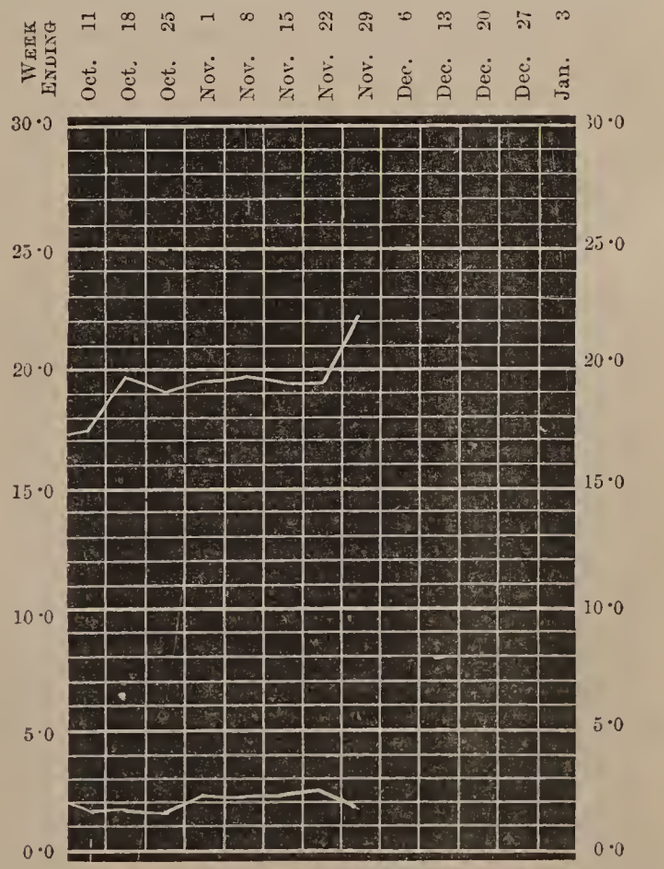
which waited on Prince Bismarck, Dr. Schweninger was inducted into the chair of dermatology, which had been held "provisionally" for twenty years by Dr. Lewin, a privat-docens. No student, it is said, has entered for his course, and most of the professors have declined calling upon him. Professor Dubois-Reymond having returned the card which had been left at his house, was challenged to a duel, with what result may easily be imagined. The Faculty, it is stated, has the intention of addressing the emperor himself, but every one knows what that means where Bismarck is concerned. Professor Leyden, the dean of the Faculty, has been to Munich for the papers relating to the process which was instituted against Schweninger there, and to his expulsion from the faculty of that university, and has communicated them to the Senate of the Berlin University. The Faculty has determined to continue its protests, and in the meantime to hold no intercourse with the new "professor."

We understand that the case of excision of a tumour from the brain, a brief record of which appeared in our last issue, is, according to the latest accounts, progressing favourably. The case, which is believed to be the first of the kind that has been thus treated, in this or any other country, is looked upon with much interest in medical circles. The chief symptoms which led Dr. Hughes Bennett to diagnose the extent and the locality of the tumour were paroxysmal twitchings of the left side of the face, alternating with twitchings of the arm on the same side, followed by slowly progressive paralysis of the hand, and later on by twitchings of the eyelids and leg without paralysis. These symptoms were accompanied by double optic neuritis and violent headache. The conclusion arrived at was that there was a tumour, probably not larger than a walnut, situated at the upper third of the fissure of Rolando. The skull was trephined by Mr. Godlee over the corresponding spot, under which the convolutions appeared to be healthy. An incision was then made in the ascending frontal convolution, and a quarter of an inch below the surface a tumour of the size suspected was discovered and removed. The operation, we need hardly add, was performed under strict antiseptic precautions.

The cases of dyspepsia amongst the Woolwich cadets are, we are told on official authority, more numerous than they ought to be, and their countenances generally look pale and jaded. The Board of visitors are therefore under the impression that some alteration in their mode of living might be advantageous. Having more acquaintance with candidates for cadetships than with full-blown cadets, we should be inclined to suspect that the fault lies in the mode of selection rather than in the mode of living when once chosen. It is true that a good digestion is one of the most important helps in passing an examination, and on the principle of natural selection, the Woolwich cadets ought to be able to digest anything; but those who have any knowledge of the amount of work demanded of the candidates before examination, will admit that it is calculated to ruin the strongest stomach that ever secreted. Twelve or fifteen hours a day over books, no time for exercise, meals hastily swallowed, and tea *ad libitum* in order to keep the over-pressed brain awake, are not conditions calculated to help the stomach in its daily work. If the visitors are wise, they will direct their attention to the cadets' mode of life before they go up for their examination, rather than to their mode of life after they have passed it. Is there not a saying that "a nation fights upon its stomach"? If so, it will be a poor look-out for England if we have to send our soldiers into the field under these dyspeptic subalterns. The visitors further report that the conduct and discipline of the cadets have been very good. Of course; dyspeptics may be irritable, but they are not likely to be uproarious. It is health and high spirits that kick over the traces. It takes a clean tongue to be unruly.

If it be true, as stated by a member of the London School Board in a letter to a contemporary, that the Board's enquiry on over-pressure is to be a private one, from which the representatives of the press are to be excluded, we shall have even more reason to distrust the report of the Committee. Its members are many of them anxious to prove that the accusers of the Educational system have no ease, and the only way of convincing the public that their enquiry is a *bonâ fide* one, is to conduct it openly and with judicial impartiality. Surely Mr. Mundella will not contend that the holding of a secret investigation, such as the London School Board appears to contemplate, is sufficient to absolve him from all responsibility in a matter which is admittedly of national importance.

A very considerable increase in the number of deaths in London last week is the natural result of the



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past eight weeks.

cold weather which then prevailed, and the general death-rate has risen, as will be seen by a reference to our chart, from 19·7 to 22·3 per 1,000. The zymotic diseases have had no share in the causation of this rise, for in only two weeks during the present quarter have the deaths under this head been lower than they were last week. There were 40 deaths from small-pox, 31 from measles, 27 from scarlet fever, and 16 from diphtheria. The rise in the total number of deaths is almost entirely accounted for by the large number included under the head of diseases of the respiratory system; the deaths in this column exceeded those of the previous week by 157. The cases of phthisis are tabulated separately from the diseases of the respiratory organs, so that when these are added to the others it appears that out of the total of 1,716 deaths more than 700 were from diseases connected with the respiratory apparatus. As usual, London compares favourably with the other great towns, three of them having a general death-rate of over 30 per 1,000. But Glasgow and Dublin have completely eclipsed all the above in their death-rates, the former giving 37·1 and the latter giving 35·4 per 1·000, in each instance the zymotic death-rate being high.

We are not surprised to hear that there is a movement amongst the more radical M.P.'s to secure the abolition of the representatives of universities in Parliament, Mr. Arnold proposing that the Universities of Oxford and Cambridge should each suffer partial disfranchisement. Such a movement is not likely to be successful with Mr. Gladstone at the head of the Government, but the force of the arguments in favour of it has been doubled by the foolish action of the Conservative graduates of Edinburgh and St. Andrew's in attempting to oust Sir Lyon Playfair from his seat on purely political grounds. Speaking as medical men, we shoud scarcely regret the abolition of the university seats, considering how little their occupants have done for the medical profession, to which in some cases so many of their constituents belong.

The American and other foreign journals are now filled with accounts of the trials being made of the therapeutical powers of cocaine. While they are going on, we may refer to the report made to the Sociéte de Biologie by M. Laborde on the results which he has observed from hypodermic or intravenous injections made on various animals. Experiments, he says, have been practised with solutions containing a centigramme of this alkaloid during the last two years. The general conclusions are—(1) Cocaine gives rise almost constantly to general analgesia; (2) It produces previous to all other phenomena a period of hyper-excitability or epileptiform convulsions; (3) Mydriasis is constant; (4) Corneal insensibility is far less important, and when it appears it is only an episode amidst the general phenomena which this substance gives rise to; (5) From all this we may easily deduce the important place which cocaine is destined to fulfil in the therapeutics of nervous diseases. We may remark that these results are very similar to those obtained by Dr. Hughes Bennett so long ago as 1873, and recorded in the *Edinburgh Medical Journal*. Dr. Bennett found that cocaine paralysed the sensory nerves throughout the body, and we regret having omitted to give him due credit for the discovery in our last week's article on the subject. Unfortunately his researches have remained for ten years without practical result.

It is proposed to hold a representative meeting at Guys' Hospital, on Wednesday afternoon, December 10th, at 4 p.m., with a view of concerting measures for giving substantial expression to the feeling of appreciation in which the memory of the late Dr. Mahomed is held by those who have been his colleagues, fellow-workers, and friends. It is earnestly hoped that as many as possible will attend.

A very practical illustration of the growth of the Cambridge School of Medicine, on which we have so often insisted lately, was given a few days since when the Museums and Lecture Rooms Syndicate applied for a vote of 700*l.* for the purchase of 100 extra microscopes, in consequence of the increase in the size of the school. Some of the Senate evidently thought it was rather a large order, and did not see why the students should not be required to provide their own microscopes; but when the representatives of the Syndicate pointed out that without these microscopes the University could not conduct its own examinations, opposition to the scheme died a natural death. Ten years ago the students used to take their own microscopes in to the examination rather than use the clumsy old-fashioned weapons with which chance and the University authorities supplied them. Professor Lankester has been urging on the University the claims of the newly formed Marine Biological Association, and seems to have met with a favourable reception. The university which possesses the first biological school in the kingdom, if not in the world, ought to lend a helping hand to further this most deserving project.

A correspondent writes—I am glad to see that in the last of his interesting Monthly Chronicles, Mr. Wynter Blyth has called attention to the recent growth of the fashion of having straw laid down in the streets for trifling illnesses. I can bear witness to the fact that in many, if not most, of the West-end cases, for which it is thought necessary to muffle the streets, the procedure is by no means warranted. I have myself, more than once, counted five or six straw-strewn streets within a radius of half a mile in one of our fashionable quarters, and have known for certain that in at least half the cases the straw was entirely a matter of supererogation. Ladies with highly strung nerves are often, no doubt, extremely sensitive to noise for a few days after their confinement, but even if the difficulty cannot be surmounted by a dose of bromide, and straw becomes a necessity, there is no reason why it should be left rotting in the streets, as it so often is, long after the occasion for it has disappeared. In many cases, however, there is even less excuse for this waste of good material. In the idle and emotional West-end a case of illness is apt to be

seized upon with avidity by the friends as a welcome excitement, and an excuse for zealous activity, of which the straw in the street is made at once a welcome outlet and a public testimony. A loving husband, father, or son is to be excused if, in despair when the doctors shake their heads and hint that they can do nothing for his loved one, he rushes off to order a few cart-loads of straw. It serves at once to relieve his feelings, and to bring it home both to himself and his friends that he at least is doing something. I have known other cases in which there was not even this excuse for the procedure. I remember one in which the husband of a wealthy wife, after living on unfriendly terms with her for many years, awoke one morning to realise that death was likely, ere long, to rob him at once of his partner and of the wealth she had brought him. With commendable activity he set himself at once to undo the neglect of years, and by an assiduous show of devotion to influence for his benefit the future disposal of his wife's wealth. Tins of beef essence and cart-loads of straw were the things that at once rushed into his mind as the best instruments whereby to manifest his changed spirit, and it is needless to say that there was at that moment not the smallest necessity for either. His wife saw through it all, and, sad to relate, left him not even money enough to discharge the straw bill. I would suggest, in conclusion, that it should be necessary always to obtain the sanction of the vestry before having straw laid down, for in some parts of town even this much is not required; and I would further recommend that the vestries should withhold this sanction unless the practitioner attending the case had certified that a noiseless street was a medical necessity of the case.

Those who braved the somewhat stormy weather last Thursday afternoon, and went to hear the Bradshawe lecture at the College of Surgeons, were amply repaid by the brilliant oration which Mr. Savory delivered. After a few opening sentences as to the meaning of the terms local and constitutional, and innocent and malignant, the lecturer approached the subject of cancer, the main topic of his discourse. Although undoubtedly in its later stages a constitutional affection, he pointed out that it might, like syphilis, in its very earliest stages be regarded as merely a local disease. Tumours had also been divided, he reminded his audience, into heterologous and homologous; the former word being true, however, only as regarded adult tissue. Innocent tumours were wont to be formed of fully developed adult tissue, cancers of embryonic tissue which never reached a higher state of development. The importance of this distinction was especially marked in the fact that the degree of growth and reproduction bore an inverse ratio to the degree of specialisation, a fact well illustrated in the difference in the repair exhibited by the fibrous and muscular tissues, as also in the vegetable kingdom. The cell theory must be admitted to have received its death-blow in the trenchant words with which Mr. Savory demonstrated its inconsistency with the facts revealed by modern researches, and the so-called cancer-cells must be regarded henceforth as mere fragments of protoplasm, resembling indeed in simplicity, and in their ability of living, the embryonic tissue from which they spring, but differing from it in their life history and vital attributes inasmuch as they have no power of higher development. As Mr. Savory with perfect truth pointed out, we do not really know what the cancer-cell or indeed the blood-cell is like during life, and it is quite possible that the nucleus which is so easily recognised in the well-prepared specimen may have no existence in the body. The large group of sarcomas Mr. Savory recognised as forming a useful and important connecting link between the cancers on the one hand and innocent tumours on the other. Finally, he pointed out the many close resemblances which exist between the most malignant cancers and the parasites, but a distinction must still be maintained between them until the transmission of cancer by inoculation, or by grafting, shall have been proved.

MRS. WELDON'S CAMPAIGN.

After a summing up by Justice Denman markedly favourable to the defendant, the jury have returned a verdict against Dr. Winslow, with 500*l.* damages. The charge upon which the damages were found was technically one of assault, the assault consisting in an attempt to take Mrs. Weldon from her home and confine her in an asylum. This attempt was made in due compliance with all the technical forms which are required by the law. Certificates had been previously given by duly qualified practitioners, and an order in due form by a person qualified to give it. It is provided by the statute that if a patient escapes from an asylum, the proprietor may send after and recapture him. It is not specially provided that the proprietor may send for and capture a patient who has not escaped, who has not at present come under his charge; but the judge did not appear to attach very much importance to the distinction. In spite of an exceedingly advantageous *primâ facie* case, the defendant is cast in 500*l.* damages; and the ground of the verdict is that "the defendent allowed himself to be unduly influenced by other motives than the interests of justice." This is as much as to say that the defendant had no business to take any part whatever in the consignment of a patient to the asylum of which his mother was proprietress, and he himself was superintendent. With this finding it is impossible not to agree. Dr. Winslow made a grievous mistake, and he has paid very heavily for it; but the matter does not end there. Mrs. Weldon has succeeded in making her case so notorious that there is probably no single matter now before the country about which so much feeling is aroused, and with regard to which there is such a universal consensus of opinion that "something must be done." While we are not of opinion that the danger of unduly incarcerating people in asylums is an urgent or a frequent one, it is impossible to say that it does not exist;

and even were we much more satisfied than we are of the rarity and minuteness of the danger, yet there is no doubt that in the minds of a large section of the public the fear that Mrs. Weldon's case is an example of many of which nothing is known, is a very real and a very strong feeling. The Government are verbally pledged to amend the law at the earliest opportunity, and, were it not so, there is no doubt that the pressure of public opinion would compel them to take steps in the matter.

As we have several times pointed out in these columns, there is no need, and there is little desire for new legislation or new safeguards in the case of pauper patients, and in the admission to public asylums. It is in the admission of paying patients to private asylums that reform is demanded; and there are several suggestions as to the nature of the reform. It is suggested that certificates should be signed only by experts in lunacy; but granting that a safeguard is demanded, the protection offered by this plan is practically *nil*, and it is certain that it would be attended by so much difficulty, delay, and expense as to be unworkable. The number of experts in lunacy is very limited. Such as they are, daily evidence shows us that they would be not less likely but more likely than other people to detect insanity in those in whom it did not exist, and to attach excessive importance to manifestations of harmless insanity. Seldom does a lunacy trial take place without some "expert" bringing himself and his profession into ridicule by the statement that "every one is insane upon some point." What would be thought of a physician who declared in court that "every one has tubercle in some organ"? Another suggestion is that within a week after a patient is consigned to a private lunatic asylum an independent expert—say a Commissioner in Lunacy—should be sent down to examine him, and upon his report the further detention of the patient should depend. There is much to recommend this plan, but it is open to very serious objections. In the first place it would entail a large staff and a great expense; in the second it might easily result in the liberation of dangerous lunatics, for there are many such who actually require to be lived with for days before evidence sufficiently tangible to be placed in a report can be collected about them; and in the third place it would shift responsibility both from the certifying medical men and from the superintendents of asylums, upon whom responsibility ought to rest. The only final and satisfactory solution of the question is the entire abolition of private asylums; and this we believe the public will demand. Doubtless to this course there are serious obstacles. It will be expensive. But, on the other hand, it will be final; and since the case of Mrs. Weldon, the proprietorship of a private asylum is no longer the lucrative business that it once was. Patients are being sent to them but slowly, and the quasi-public asylums—institutions like the St. Andrew's Hospital at Northampton, which are governed by a committee of public men and managed by a salaried superintendent—are crowded to overflowing. We have reason to believe that more than one proprietor of a private lunatic asylum would not be sorry to exchange his position for that of a salaried superintendent working under the supervision of a public committee.

ESSAYS ON MEDICAL CLASSICS.

No. II.—SYDENHAM.

The materials for the life of Thomas Sydenham are scanty. The best account of him is a short one by Dr. Johnson. He was born in 1624, at Winford Eagle, in Dorsetshire, and came of a good and ancient family. He became a commoner of Magdalen Hall, Oxford, in 1642, but left the University on the breaking out of the civil war, and joined the Army, probably on the Parliamentary side, but even this is doubtful. Accidentally, on the advice of Dr. Cox, he determined to enter the medical profession; he therefore returned to Oxford, and took the Degree of Bachelor of Physic, in 1648. He says that he applied himself in earnest and spent several years in the University before practising in London, and it seems that he visited Montpellier, then one of the most famous foreign schools. From his writings it is evident that he was familiar with the works of Hippocrates and many later authors, and he must have devoted some labour to master the complicated materia medica of those times. He took the degree of M.D. much later at Cambridge, became a licentiate of the Royal College of Physicians, and practised in Westminster, living in Pall Mall. He absented himself with his family from town while the plague raged, in 1665. Early in life (apparently in his 26th year) he was attacked by the gout which seized him more and more severely through his life and became complicated with stone in the kidneys; his health began to fail in his 52nd year, and he became further exhausted by pain and bleeding. He died at the age of 65, on December 29th, 1689.

Sydenham began writing after twelve years' practice and pursued it from time to time, often in the form of letters to his friends on special subjects. He was an accomplished scholar, and wrote in Latin. English translations have been made—first by Pechey (several editions), by Swan (1763), and by Latham for the Sydenham Society (1845). His works have also been translated into other languages, including Spanish. They repay reading to-day as much as when they first saw the light, not only because many of the facts and principles they enunciate are as accurate now as they were then, when they were really great discoveries; but because they train one in the habit of regarding disease in the plain and comprehensive way of this master of the art. To appreciate his writings fully one must read and re-read them carefully. On this the author himself insisted, else, he said, he would have written to no purpose. Boerhaave studied him constantly and keenly, and extolled him highly, placing him first among the moderns and on a par with the best of the ancients. Trousseau also was a close student and warm admirer of him. His fame was great in his life-time, and lived after him by tradition and through his works. So great were his genius and the results of his labours that he has well earned the title of the English Hippocrates. His peculiar excellence lay in the breadth, depth, and power of his intellect, united to an energetic spirit, an upright character, and a generous and loveable disposition. By the breadth of

his intellect he observed comprehensively and took in general features; by its depth he pierced to the root and core of disease; by its activity he was led to seize upon the right method of treatment, according to indications and on rational principles. From the first he resolved, of set purpose, to advance the knowledge of medicine; in his own words — "He would have always esteemed himself a useless member of society if he had not contributed his mite towards the improvement of physic," and he succeeded. He had a perfect perception of the proper province of medicine, aiming at and grasping the "middle propositions" of Baconian phraseology, which are of most value in an inexact and practical science. He says— "In all acute and most chronic diseases there is something *divine*, or some specific property, which is not discoverable by a search into the structure of the human body, and, therefore, accurate observation of symptoms is of more value than mere anatomy." In the same manner, he "censures those who hope for too much from chemistry, for the principal defect in medicine is not a knowledge of specific remedies, but a knowledge of the *indications* to be answered." Again, "the discovering and assigning of remote causes, which engross the thoughts and feed the vanity of many curious enquirers, is an impossible attempt, and only the immediate and conjunct causes fall within the compass of our knowledge: thus diseases may be cured though their remote causes are absolutely undiscoverable." He thinks "certainly the air sometimes abounds in particles injurious to man and brutes, and produces fever; but whether the air becomes infected by some alteration in the bowels of the earth (as he believes) or by some peculiar conjunction of the planets is a matter of indifference." Thus showing what is *not* the way to advance, he describes the right one, which is truly that of Hippocrates, and of which his works will ever stand as an example. "The improvement of Physic depends on (1) collecting as genuine and natural a description of all diseases as can be procured; (2) laying down a fixed and complete method of cure. All diseases, therefore, are to be reduced to certain and determinate kinds, as plants are, yet not in such a way as merely to support prepossessing hypotheses; and then the phenomena must be minutely investigated, and the accidents depending on age, constitution, or method of cure separated." "The absence of an accurate history of diseases is due to a general supposition that they are merely the confused and irregular operations of disordered and debilitated nature; cure is to be effected by a certain knowledge of the indications to follow, and should be established and verified by sufficient experiments." He cares only for "experience founded on the solid testimony of the senses." Thus his method is good and sound, and in the application of it he is bold and original; though well read and informed, not given to blind imitation of others, but carrying out the suggestions of his mind, without rashly experimenting, but merely observing, with his wonderful insight and sagacity, the "juvantia and lædentia" and whatever influenced the course of the disease; judiciously weighing the results of his procedure, and candid in narrating them, when, "after long deliberation and many years' close and faithful observation, he resolved to communicate his thoughts." Hence, amid all the "useless and trifling speculations,"—chiefly in anatomy and chemistry,—and the blind empiricism of his day, all which he earnestly shunned, he attained to clear and substantial notions. Though at once appreciated by the best men, nevertheless he "expects only censure and contumely from this degenerate age; but as long as he establishes the truth of his own observations, he does not care what other persons think." He is "sure that his method of treating fevers will prevail after his death, though at present opposed by ill-grounded prejudice." In fact he encountered great opposition from many of his contemporaries, and was looked on by them as a mere quack.

Sydenham always conceives as good a general idea of disease as possible; and while never overlooking the smallest symptoms, always pays more regard to general conditions than to irrelevant details; thus to the state of the health and animal spirits more than to outward appearance; to weakness, fainting and sickness rather than to the pulse and tongue. He used hypotheses freely in a legitimate way, but never became enslaved by them. His vivid though well controlled imagination is often displayed in his works, and expresses itself by apt metaphors; for, recognising as he did the large element of mystery in his subject, it was the natural way of conveying his thoughts. This adds much also to the literary charm of his writings. For instance, he compares the subtle fatal action of a grave acute disease to a needle penetrating a pillow. Again, hysteria is due to "irregular motions of the animal spirits (the finest particles of matter, bordering on immaterial or spiritual beings) from a weakness and laxity of their texture." This is simple and accurate, compared with the old theory of strange excursions of the womb over the body. And his description of the disease and its manifestations is lucid and correct. A large part of his works is occupied by treatises on acute diseases—continued, intermittent and "intercurrent" fevers, as well as small-pox, plague, &c. Among the first class he did not distinctly recognise our various species; but he regards the "comatous fever" (typhoid?) as requiring a special line of treatment. He lays much stress on the "epidemic constitution," or character depending on something in the year or season, which determined the particular degree of severity and the character of the symptoms. A disease is a "vigorous effort of nature to throw off morbific matter," and in acute diseases there is vigour enough to produce a crisis by means of fever; we must therefore learn the way adopted by nature in every case and do our best to assist her, though "as long as the patient gets no worse from day to day," no interference is called for. A fever being a "commotion of the blood" we should try to keep it within due bounds. Thus, experience taught him that a cooling and depleting regimen succeeded best; but he never carried this doctrine to extremes, and his guidance as to the cases time and amount in which to bleed, purge and cool is still safe to follow, though mostly neglected now. He introduced, chiefly in small-pox, the method of cooling by keeping the patient out of bed daily, while not too weak. Malignity, he found, was due to excessive

violence of the fever, was increased by heating medicines and relieved by the opposite. But he was so judicious and guided himself so loyally by experience that he learnt many exceptions, *e.g.*, that madness after an acute illness, unlike ordinary acute insanity, required restorative instead of lowering treatment; and that dropsy in exhausting diseases would not stand purging; also that cordials (mild ones) may be required in fevers, even at the outset, if the vitality is low.

Though his works abound in remarks worthy of consideration, only a few of the leading and incidental doctrines can be briefly referred to. The treatise on gout is the most luminous that has ever appeared before or since and is written in an excellent style, as might be expected from the personal interest the author had in the subject. He introduced some innovations in the treatment of fevers, besides those already mentioned: *e.g.*, bleeding in the plague, and during convalescence after fevers, and he made the customary rules more precise than they had previously been. He extended the use of opium and gave it with confidence, claiming for it in confluent small-pox a specific action equal to that of bark in ague. The use of bark in ague he was one of the first to extend, soon after it had been introduced. He strongly recommended horse-back riding in chronic diseases, especially consumption and dysentery. He warned against too early rising (at least before the tenth day) after confinement, and declaimed against the excessive and indiscriminate drinking of brandy. A few suggestions sound rather quaint; for instance, the old plan of applying the body of a young man to an old man to revive him (he asserts the benefit to be derived from it, but apologizes for mentioning it as sounding fanciful), the application of a live puppy to the abdomen in iliac passion; and of a cabbage leaf to the side in pneumonia; but he always chose the simplest remedies and declares a strong preference as a rule for vegetable drugs, and complex prescriptions.

The personal character of Sydenham was not less admirable than his scientific achievements; the more we see of his nature the more we esteem him. He "considered it a greater happiness to cure the slightest disease than to accumulate the largest fortune." He is always sensible and practical and eager to benefit mankind. He "does not desire to be called a philosopher, and recommends those who claim a right to the title to try and account for the various surrounding works of nature." He gained the esteem and admiration of all who knew him, for he was benevolent, candid, sincere and religious. His character, method and achievements render him the most perfect example to follow of any that can be found in the long array of our forerunners.

N. H.

Iodoform in Organic Diseases of the Heart.—Professor Testa, of Messina, has tried with success the treatment recommended by Molesehott for the relief of functional disturbances in incurable disease of the heart. This consists in giving seven centigrammes of iodoform in four pills daily, continuing it for some time, this lasting in one patient for nearly a month. It acts especially by diminishing the number of the beats of the heart and increasing arterial tension.—*Gazette des Hôp.*, Sept. 9th.

REVIEWS AND NOTICES OF BOOKS.

THE RABBLE OF DISEASE.[1]

In respect of the realm with which each deals, the physician of to-day stands in much the same relationship to the leech of the middle ages as an English statesman striving to govern according to the sound principles of political science does to the irresponsible ruler of an Eastern race. If the potentate, lapped in the birth-right of a selfish luxury, mostly has regard only for the effects, and not for the cause of satisfaction or discontent amongst his subjects; if their attitude of submission or of revolt is merely a source of careless satisfaction or an excuse for repressive violence; if there is complete personal ignorance of and indifference to the life of the people; and no attempt to master the cause of popular movements, or the elements of periodical revolutions; so too, the leech-astrologer looked on the symptoms that he recognised, as forming the entity of a disease, which he imagined was to be ejected by force of fire, of water, or of scourging; which might be cajoled by charms and incantations; or which was to be regarded as the just punishment meted out by an offended deity, against whose judgments it was impious for man to strive, heedless of the fact that while the wicked indeed suffered, they did so "in proportion as they were poor and miserable." On the other hand, just as the statesman seeks to know the people, and finds in the study of different classes of individuals the secrets which explain the unlooked-for results of their collective action; as he learns that what is irresistible as the *vox populi* can yet be guided, or stifled, so long as it exists only in the earliest stage represented by the scattered suggestions of a few individual minds; and as he recognises all the circumstances which must be properly combined in order to the success or the collapse of a popular movement; so, in the domain of medicine, scientific investigation has quite recently begun to lay bare what we may call the home-life of countless microscopic organisms, which, though only as yet convicted in a few instances of being the actual cause of disease, we are daily coming to associate more and more intimately with its existence and manifestations. While the ordinary machinery of treatment has been hitherto but little altered in consequence, *i.e.*, while the treatment of results still remains much as it was, the police and the detective forces of medicine are being gradually modified in accordance with these recent advances in knowledge. And, expressed more or less distinctly by different voices, it is the earnest hope of many minds, not wholly given over to a blind enthusiasm, that by perfecting our knowledge of the "dangerous classes" among micro-organisms, we may be enabled to do something better than attempt to resist the violence of their collective onslaught, or watch the repair of the ravages produced by their attack; that, in short, it may become possible to seek them out in their own

[1] Micro-Organisms and Disease. An Introduction to the Study of Specific Micro-organisms. By E. Klein, M.D., F.R.S., etc., with 108 engravings. Macmillan and Co.

haunts, there to isolate and to exterminate them ; so that a future generation of doctors may know nothing of the filth-diseases with which we are familiar, save the name, and, intelligently supervising the birth of healthy infants, may, at the other extreme of life, simply record the limit put to green old age by mere "effluxion of time."

Whether their hopes for the future soar as high as this or not, there are none who will not welcome the publication of Dr. Klein's recent papers on micro-organisms in book form. Within the covers of a modest little volume of less than two hundred closely printed pages, the author has treated his subject with a clearness and completeness which leave little or nothing to be wished. The first five chapters are concerned with such details as microscopic examination, the preparation of culture material and of culture media for inoculation, the vessels and instruments employed, and the methods of inoculation itself. These directions are concise, but clear and ample ; and, together with the short introduction, breathe a spirit of scientific caution and exactitude which is an especial requisite for workers in this field, and which is a noticeable characteristic of Dr. Klein's teaching throughout. The morphology of bacteria and a consideration of the forms included in Cohn's classification, with that of the yeast fungi, the mould fungi, and the actinomyces, occupy the next eleven chapters ; while five more are devoted to a study of the relations of septic to pathogenic organisms, to the vital phenomena of non-pathogenic and of pathogenic organisms respectively, to vaccination and immunity, and to the important subject of antiseptics. The value of practical manipulation is shown by the very small proportion of loss amongst inoculated tubes owing to accidental contamination with air-organisms during decantation. Dr. Klein says that to decant under the carbolic acid spray is not practicable and possesses many unpleasant drawbacks, and that in some instances in which it was used there was really a greater percentage of contaminated tubes than without it. This is interesting as giving some support to the theory of those heretics who regard the spray as an engine for blowing disease-germs about rather than one capable of destroying them.

The student of humanity knows not only that criminals may be developed, and that the vicious may be reclaimed in accordance with the treatment to which they are exposed ; but that the ultimate character of the individual, virtuous or vicious as the case may be, is practically dependent on the training to which he and his ancestors have been subjected. So it has been claimed not only that the virulence of a micro-organism may be attenuated by a succession of appropriate cultivations, until indeed a condition of absolute innocence is attained ; and that an innocuous microbe, of definite specific character, may become the ancestor of an equally specific pathogenic form ; but also that one of absolutely indifferent (and therefore in themselves harmless) proclivities, may develop descendants capable of evolving the phenomena of this, that, or the other "specific" malady, as played upon by the environment during the successive stages of their evolutional history. Dr. Klein writes of facts, and so far as careful observation of actual facts in this connection enables him to speak on these points, he does so in no uncertain voice. Thus, with regard to the alleged transmutation of the *bacillus anthracis* into the hay bacillus, he agrees with Koch in regarding this as a complete error and fully endorses Koch's criticism of Buchner's experiments and his explanation of their results. In respect of the supposed development of the hay bacillus into *bacillus anthracis*, Dr. Klein states :—"I have repeated Buchner's experiments on rabbits, guinea-pigs and white mice. I have grown the hay bacillus in various kinds of broth, in gelatine broth mixtures, in hydrocele fluid, in peptone fluid, in Agar-Agar and peptone, at temperatures varying between 30° and 38° C., and I have, to put it shortly, never seen that it shows the least tendency to change its morphological characters, or that it ever assumes any morphological or physiological character like the *bacillus anthracis*. I consider this a perfectly hopeless task, and I feel sure anyone might as soon attempt to transform the bulb of the common onion into the bulb of the poisonous colchicum." Again (p. 168), "I have made a series of experiments with the view to obtain pure cultivations of definite septic micro-organisms ; various species of micrococci, bacterium termo, and bacillus subtilis, of which the morphological characters could with precision be ascertained, and which at starting were tested to be barren of any power of inducing disease. I have cultivated these in pure cultivations for many generations, and under varying conditions, and then I have inoculated with them a large number of animals (mice, rabbits, and guinea-pigs) ; and to put it briefly, I have not found that hereby any of them acquired the least pathogenic power." Unlike their human prototypes, these organisms are, in Dr. Klein's opinion, either irreclaimably bad, or else incorruptibly good ; and the physiologist need not fear (so far as the existing evidence will warrant) the moral declension of his bacillar *protégés* any more than he may hope to educate them into an exercise of higher physical virtues. "There are micro-organisms which are pathogenic, while others are quite harmless ; the latter remain so, no matter under what conditions and for how long they grow."

In explanation of the immunity often conferred by one attack of many of the infectious diseases, the author adopts the "antidote theory" of Klebs, rejecting the "*exhaustion theory*," as unsatisfactory and at variance with facts, as well as that advanced by Grawitz and others who believe immunity to depend upon an alteration in the resisting power of the tissues. It is, however, difficult to imagine that the immunity resulting from a first attack is altogether dependent on the production of "a chemical substance in the blood and tissues which acts inimically to a new immigration of the same organism ;" because, when such immunity is life-long, for example, we must suppose this "chemical substance," originally formed by the action of long defunct micro-organisms to be persistent in kind, in amount, and in distribution, although the blood and tissues in which it abides are undergoing continual change and renewal. It seems more reasonable to suppose that the tissues themselves are so pro-

foundly affected in the course of the disease that they continue thereafter to perform their vito-chemical interactions in some slightly but sufficiently modified fashion; somewhat, for instance, as a twig of variegated holly, grafted into an ordinary holly tree, after a while infects the whole of the latter's foliage with its own peculiarities of assimilation and secretion. There are many other points, such as the theory of the bacillus of tubercle and of cholera, on which we are tempted to quote further; but the whole of the little book is interesting, and especially valuable for reference on account of the care and thoroughness which mark the details on every page. The illustrations are numerous and pertinent; and though not above the average of ordinary English wood-engraving in execution, they add materially to the usefulness of a work which is worthy of Dr. Klein's established reputation, and which also affords gratifying evidence of the valuable labours that are unostentatiously carried out by the Medical Department of the Local Government Board.

London Water Supply; by Colonel Sir Francis Bolton, C.E., International Health Exhibition Handbooks. London: Wm. Clowes & Sons, 1884.—We heartily welcome this book as supplying a long-felt want: a full description of the water supply of the metropolis, free from prejudice and bias. Colonel Bolton holds an unique position; himself committed to no particular system or theory, and responsible only to the Local Government Board, he enjoys in his official capacity unrivalled opportunities of making himself acquainted with every detail in the procedures and the administration of the Water Companies. The book opens with a general introduction on the sources of water supply, modes of purification and distribution, a table showing the consumption per head in a number of towns at home and abroad, and a short discussion of the relative advantages of constant and intermittent service, meters, and dual supply, while the method of filtration employed by the London Companies is more fully described in Chapter II. Next we find a statement of the sources whence each Company draws its supplies and the areas of distribution, with elaborate tables of the amount, storage, distribution and other engineering details, as well as a map no less instructive. In Chapter VI. we have Dr. Frankland's report to the Government, and that of Drs. Crookes, Odling, and Tidy to the Companies on the quality of the several waters. The second part of the work gives historical and descriptive notices of the operations of each Company in order, with financial statements, analyses, and maps. It is satisfactory to learn that since 1871 the Water Companies have of their own accord and in compliance with Col. Bolton's recommendation expended no less than 3,175,329*l.* in improvements in respect to source, storage, and methods of filtration. As regards the extension of constant service we observe that the New River, Kent, and Grand Junction take the lead, the Chelsea and Southwark having done the least; but at the end of the year 1883, no fewer than 258,205 houses received a constant service against 608,525 in which the supply was still intermittent. The consumption of water per head of the population is about 30 gallons daily for all purposes public as well as domestic, and the total amount supplied to the metropolis was during the year 1883 at the rate of 144,592,772 gallons daily. Of this 71,710,878 were taken from the Thames, the East London Company not availing themselves of this source, and the others keeping within the prescribed limits, 63,314,260 from the Lea, and 9,567,634 from deep wells in the chalk. This last figure refers only to the Kent Company, but we should have liked to know how much the East London draws from wells, for though from a hydrographer's point of view it is immaterial whether the water be taken directly from a river or from springs which feed it, the quality of the respective sources is very different. Thus we learn from other reports that of the 26,000,000 gallons supplied daily by the New River Company nearly 20,000,000 are taken direct from the Lea, so that the name of New River is, except historically, a misnomer. Their intake is, however, far higher up the river than are those of the East London, and therefore so much the better. They have indeed a station at Tottenham, but for twenty years it has not been used. The intakes of the East London at Old Ford, &c., are certainly open to grave objections. Two appendices are annexed, the first giving the Acts of Parliament relating to each Company and the regulations of the Water Companies Act of 1871, which are of great importance to the householder, and the second describing the pavilion at the Exhibition and therefore of merely temporary interest.

Report of the Sanitary Condition of Birkenhead for the year 1883; by Francis Vacher. Birkenhead: Willmer, & Co., 1884.—During the past year the total number of deaths in Birkenhead was 1,742, giving a death-rate which compares very favourably with that of other large towns similarly circumstanced. The proportion of deaths of infants, children, and young persons is less than the average of town districts. There were 226 deaths from zymotic diseases, giving a death-rate of 1·28 less than the mean rate for the preceding five years, a state which must be considered eminently satisfactory. Amongst the fatal zymotic diseases, small-pox finds no place, a source of congratulation to the medical officer of health and the sanitary authority generally. Typhus was said to be the cause of death in ten cases, and some particulars of each of these cases are given in the report. The number of uncertified deaths does not diminish, which is not only unsatisfactory from the point of view of the care of the sick, but also greatly diminishes the value of the mortality statistics by rendering them incomplete and unreliable. How a registrar should have accepted a statement that a baby's death had been due to hypertrophy we must confess ourselves unable to comprehend, and yet this intelligent diagnosis is set down as the cause of death in one instance. A map of the town showing the incidence of the cases of infectious disease is appended, as also a plan of the new fever hospital.

A Descriptive Catalogue of the Pathological Museum of the Middlesex Hospital; by J. K. Fowler, M.A., M.D. London: J. & A. Churchill.—The Middlesex Hospital museum was founded nearly fifty years ago, and up till now the catalogue has remained in manuscript. The school authorities have done well in calling public attention to their museum, which is already fairly well stocked with preparations, and we do not doubt that the publication of this catalogue will materially increase the usefulness of the museum, and be the means of bringing more specimens to it. The catalogue is made on the lines adopted by the Royal College of Surgeons and St. Bartholomew's Hospital, and contains a very full table of contents at the commencement. The book is well printed and admirably bound, and we hope that those hospitals that have not already published a catalogue of their museum will be stimulated into doing so by the very good example set by the Middlesex Hospital.

Medicinische Bibliographie und Anzeiger; compiled by Dr. Arthur Würzburg, Librarian to the Imperial Board of Health in Germany. Leipzig: Breitkopf and Härtel, 1883. Pr. 5 Marks.—The vast increase in the quantity of medical literature which is every year becoming greater, has created a demand for some system of registration and indexing which shall enable future readers and writers to refer to already published works without unnecessary confusion and delay. It is perhaps to be regretted that no common code of registration has ever been adopted by the four nations which chiefly contribute to the progress of medical knowledge. Each nation has its own form of Index Medicus, Bibliography, or Jahrbuch, but each comprises the works of other countries as well as its own, and hence arises a great deal of unnecessary repetition. The work before us, the first published volume of the Bibliography, which has for the last year made its weekly

appearance as the companion to the *Centralblatt für die gesammte Medicin*, is a very complete catalogue of its kind. It consists of a comprehensive list of all the original communications to periodical literature, of all the published works, and of very many clinical lectures, papers of especial interest read before any medical societies during the year 1883, and also of important critical newspaper articles. In every case a clear reference is given to the original paper, and in the case of published books and pamphlets the size of the work and also its price and publisher are duly noticed. Being prefaced by an index of authors' names and of the subjects dealt with, the book can be successfully referred to without much delay. An extension of the subject index, however, might be made with advantage by means of further subdivision under each heading. Thus, under the heading of syphilis, we have no less than fifty-four references without any indication as to the branch of the subject with which the several papers may deal. A subdivision into syphilis of the brain, skin, throat, &c., would greatly increase the facility of using the work. As a useful library work of reference, Dr. Würzburg's Bibliography deserves a cordial reception as one of the most comprehensive of its class.

A System of Human Anatomy; By HARRISON ALLEN, M.D. Section 6. London: Henry Kimpton & Co., 1883. —The sixth and concluding part of this important work is now on our table. The subjects contained in this section are the eye, the ear, the nose, the organs of digestion including the teeth, the organs of respiration, and the genito-urinary organs. To these are added chapters on superficial and topographical anatomy, and on embryology and the study of malformations. The concluding chapter is on the art of making *post-mortem* examinations. As we have in noticing the various parts of this work expressed our approval of it, we are glad to be able to find that the last section has been as carefully prepared as its predecessors, and that the plates are plentiful and well executed. The advanced student will, we doubt not, find this work of great assistance, but the beginner must not delude himself by supposing that in becoming the possessor of it he is on the high road to learn anatomy. He must have made some progress in the dissecting room before he can use such a work as this with advantage.

Notes on Physiology; by HENRY ASHBY, M.D. 4th Edition. London: Longmans, 1884.—A book which was originally published in 1878, and which is going through its 4th edition in 1884, does not require much commendation at our hands. It does not deal with debatable questions of transcendental physiology, but with certain now well-understood physiological facts, such as every medical man must keep at his finger ends. It is just the book that students require; in it they will find all that is essential for the ordinary and intelligent practice of medicine. These facts, however, should be committed to memory, and special points which are not sufficiently detailed can be supplemented from larger works as the want arises.

The Science and Practice of Midwifery; by W. S. PLAYFAIR, M.D., F.R.C.P., &c., &c. Fifth Edition, 1884: Smith, Elder and Co. We have pleasure in calling attention to the appearance of a new edition of this popular text-book. The work has been revised, so that it represents the author's most mature judgment on the subjects of which it treats, and we doubt not it will continue as great a favourite as heretofore with students and practitioners.

ABSTRACTS AND EXTRACTS.

OBSTETRICS.

ARREST OF TUBAL-PREGNANCY BY GALVANISM.—Dr. Paul Mundé, of New York, relates (*New York Medical Record*, September 27th) the following interesting case. "It is possible," he observes, "that at some future time the details of laparotomy may be so simplified that a fatal termination will be a rare exception; but at the present time, in spite of Tait's wonderful results, the fact remains undisputed, that every patient whose abdominal cavity is opened incurs the risk of losing her life. So long as this is the case, the majority of operators will hesitate before performing a dangerous operation, when the same result can be obtained, at least so far as the continuance of the gestation is concerned, by an entirely harmless and simple process. Whether this process, the passage of an electric current through the gestation-sac, is so entirely harmless; whether it can be relied upon always to arrest the growth of the ovum and its envelopes; and finally, whether the ovum so arrested is a safe thing to have in the abdominal cavity *ad infinitum*, these are points which only additional observation will decide. As a contribution to the settlement of these questions the following case is reported."—Consulted by a lady, 38 years of age, the mother of a child 8 years of age, and who had miscarried 6 years ago, Dr. Mundé found on examination that the uterus was empty and unenlarged, while a deeply fluctuating tumour, the size of a goose's egg, could be felt, slightly movable, at the right side of the pelvis, the uterus moving with it. Large vessels could also be felt pulsating through the right vaginal pouch. The diagnosis formed was that of a tubal pregnancy of two months' duration. This view was subsequently confirmed, after an examination by Professor Emmet. The patient had for some time past suffered a good deal of pain in the abdomen, and the two examinations caused her great suffering. Fearing that any delay might result in a rupture of the sac, Dr. Mundé at once proceeded to the application of galvanism, notwithstanding an extreme state of prostration into which the patient had fallen, "preferring to run the risk of producing that rupture by the electricity, rather than what seemed to me the greater risk of allowing the sac to grow even twenty-four hours longer. Placing a leather-covered button electrode in the rectum, and the other pole by a flat sponge on the abdomen over the mass, I passed the current of my newly filled galvanic battery through the sac, gradually increasing the current, a dozen times or more. The sitting lasted about ten minutes, and the shocks were quite painful. I did not think this current too strong, for I remembered that in one of the successful cases reported, Burney's thirty-six cells had been used. I left the patient fairly comfortable, no more prostrated than before the application." Next morning, on being sent for, Dr. Mundé found that the patient, after retching and vomiting during the night, had been seized with a violent pain in the abdomen, and had become pale, cold, and pulseless. He feared that rupture of the sac must have taken place, and was only prevented from concluding that this was the case by the fact that the patient could turn about in bed and answer questions. A state of collapse there was, but it did not seem exactly like prostration from hæmorrhage. A gently conducted examination showed that the outline of the mass remained as distinct as on the previous day. The treatment followed was the administration of stimulants for the purpose of rallying the patient sufficiently to allow of laparotomy being performed if rupture took place. As the stomach would retain nothing, hypodermic injections of brandy and ammonia were practised in different parts of the body every twenty minutes, and as she continued all day in this condition, about fifty of these injections were administered. Although advised by colleagues to operate, in spite of the collapse, Dr. Mundé forbore doing so under the hope that the collapse might be due to the shock produced by the painful vaginal examinations, and by passing the galvanic current through so sensitive an organ as an over distended tube. The next morning some return of pulsation took place in the wrist, and from this time the patient gradually rallied, and in a week was able to sit up in bed. The sac had become somewhat harder and fluctuation less distinct. Pulsation had disappeared, but the mass was not perceptibly smaller. To remove all reasonable doubt of the death of the fœtus "I thought it best to pass the faradic current through the sac a number of times, and beginning on the 16th day after the galvanic sitting, I made six faradic applications to the sac, one pole in the vagina, the other over the mass on the abdomen, using the full strength of a Kidder tip-battery, and frequently breaking the current. One sitting a day was

given, lasting about fifteen minutes. This treatment caused no pain or shock whatever." From this time the patient rapidly improved, and by the end of the fourth week was able to go out. The sac, however, diminished very slowly, so that when the patient was last seen, three months and a half after the galvanic shock, it was still two-thirds as large as at first, although perfectly solid. All pain had entirely ceased before she was allowed to go out. Menstruation reappeared, and the lady left for a tour in Europe. In the comments which Dr. Mundé makes upon his interesting case, he again expresses the conviction that the prolonged condition of collapse into which she fell was due to shock brought about by the pain caused by the examinations and by the galvanism, and naturally congratulates himself on having had the acumen to distinguish between this and the collapse that would result from intra-abdominal hæmorrhage, and thus saving his patient from a laparotomy which would probably have ended fatally. Still, he had remained for hours under the expectation that he should have to operate; and it was solely the persistence of voluntary muscular power during the collapse that gave him the courage to delay interference. The experience gained in this case induces him to give preference to the faradic over the galvanic current, for, although the former requires more frequent repetition at short intervals, it is much milder in its effect. He believes that this is the twelfth reported case of extra-uterine pregnancy being checked by electricity; the eleven other cases having been recorded by Dr. Garrigues in the seventh volume of the "Transactions of the American Gynæcological Society."

Extra-Uterine Pregnancy in a Tubo-Ovarian Cyst.—Dr. Vulliet, of Geneva, describes in the *Archiv für Gynäkologie* (Band xxii., Heft 3) a case which he believes to have been of the above kind. There was the history, common in such cases, of previous pelvic inflammation: of the symptoms of pregnancy, milk in the breasts, &c., and the discharge from the vagina of a decidual membrane. There was a tumour behind the uterus, pushing that organ forwards. An incision was made into the tumour per vaginam, but the wall found so thick (in consequence, as was afterwards found, of the implantation of the placenta in the lower part of the cyst) that nothing could be done by this method, and laparotomy was therefore performed, the fœtus removed, and drainage tubes inserted both into the abdominal and vaginal wounds. The fluid contained in the sac was scanty, greyish and fœtid. The patient died on the day after the operation from septic peritonitis. On autopsy the uterus was found enlarged. The left tube and ovary were found adherent to the parietal peritoneum, and a small abscess between the tube and the ligament of the ovary. The gestation cyst was bounded in front by the right broad ligament and the uterus, behind by the rectum and the pelvic wall. The right tube was adherent to the sac, tortuous, and when opened was found dilated, thickened and opening into the gestation sac. No trace of the right ovary could be found, and the most careful examination of the walls of the cyst failed to discover any ovarian structure in them. Nevertheless, from the fact that the ovary could not be found, and that the tube opened into the cyst, Dr. Vulliet endorses the view of Professor Zahn (by whom the cyst was examined) that it was originally a tubo-ovarian cyst; the ovarian tissue being, as is usual in such cysts, spread out over the wall of the cyst, but probably not recognisable in consequence of the secondary changes due to the pregnancy, death of fœtus, inflammation of cyst, &c. Dr. Vulliet has found, recorded by Cazeaux, an indubitable instance of pregnancy in a tubo-ovarian cyst. He points out, and shows from cases, that three forms of tubo-ovarian cysts are met with: (1) small and of recent formation with the ovary unaltered, (2) those in which the ovary is wholly or for the most part converted into a membrane, but retains its proper histological structure, (3) those in which, from tension or other changes, the ovigenous tissue is destroyed.

Oophorectomy.—Dr. Fehling, of Stuttgart, contributes to the *Archiv. für Gynäkologie* (Band xxii., Heft 3) an interesting article on the "Castration of Women." He relates ten cases, and then expresses opinions based upon other these and upon recorded cases. As to mortality, he thinks that with experience this will diminish. Hitherto it has been about ten per cent., but he thinks with our present experience it is not likely in the future to exceed at most five per cent. Next as to the effect upon menstruation. In 4 cases out of 9 he found the menopause immediately follow. The same happened in 4 cases out of 10 published by Tauffer, and in 31 out of 41 recorded by Hegar. Irregular hæmorrhages for a time followed by complete cessation, resulted in 3 of our author's 9, in 3 of Tauffer's 10, in 8 of Hegar's 41. Hæmorrhage continued to recur for a long period (two years or more) after operation in 2 of Fehling's cases, 3 of Tauffer's, and 1 of Hegar's. The result of other operators, says Dr. Fehling, give similar figures. He then considers the effect in different classes of cases. In cases of uterine fibroids the results are excellent. In 5 out of 6 cases of his own in which spaying was performed for fibroids, the menopause followed. In 21 similar cases of Hegar's, 3 died, the menopause followed immediately in 11, gradually in 6; in only one did hæmorrhage persist. Fehling removed the ovaries for ovarian neuralgia in one case only; relief was slow but complete. In nervous and mental diseases he finds the results are not good; even when benefited for a time, symptoms return. Goodell's wild assertion that all insane women ought to be spayed, Dr. Fehling rejects absolutely. He quotes Liebermeister to the effect that in hysteria, unaccompanied with local disease, castration ought not to be performed. He does not think it necessary, even if possible, to feel the ovaries before commencing the operation. He has not observed any loss of sexual feeling as a result of the operation.

On Errors in the Diagnosis of Pregnancy.—Professor Pajot, in a clinical lecture (*Presse Méd. Belge*, September 7), observed that he wished to refer to a case which would prove of great value to the pupils as putting them on their guard in relation to faults in the diagnosis of pregnancy. Such faults have been committed by men of the highest eminence, for if in 95 cases out of the 100 diagnosis is quite easy, in some others it is attended with extraordinary difficulty. In this case, of recent occurrence, such a fault had been committed by men in a high position, one of them enjoying great celebrity. In place of hesitating to communicate the case, Professor Pajot brings it prominently forward, as it exhibits the precise rule which should be observed on these difficult occasions, and may save the reputation of the practitioner and even the life of the patient. A lady, 35 years of age, had a child when she was 20, after a laborious labour, requiring the forceps, and followed by a vesico-vaginal fistula. Since then she had two labours, both quite easy. After the last of these, eight years ago, she suffered greatly from menorrhagia; but having five years since begun to introduce a large sponge into the vagina, for the purpose of sustaining the uterus, which had descended considerably and absorbing the urine from the vesico-vaginal fistula, the metrorhagia ceased and was succeeded by irregular and sparing menstruation. Having become a widow she re-married, and coition was always performed with the sponge at the bottom of the vagina. Last summer she consulted Professor Pajot because her abdomen had greatly enlarged and she wished to know whether she was pregnant. Having removed the sponge, he proceeded to examine her, and found the perineum very lax and easily depressed, a small vesico-vaginal fistula still existing. The cervix, in the erect posture, descended to within a few centimetres of the vulva, and was flattened, small, hard, atrophied and colourless. The orifice was but slightly developed. The uterus rose largely out of the pelvis and was very mobile, but its oscillations were not communicated to the cervix. Professor Pajot delayed giving his opinion on the case for a fortnight, when the patient declared that she felt the child move; but the fœtal heart could not be heard and the opinion was still withheld. Meanwhile an accoucheur and hospital surgeon was consulted, who, after an attentive examination, declared that an ovarian cyst existed. This alarming the patient, a celebrated laparotomist was consulted who stated that a large fibrous tumour of the uterus existed, and advised an operation. Three weeks after this last consultation, the patient, having taken some very violent

purgatives, gave birth to a child between seven and eight months old, all traces of the tumour disappearing. "Faults like these are committed only because old counsels which I long since delivered have been forgotten. In these difficult and obscure cases, I said there is a simple line of conduct to be followed which is both useful and prudent, and never compromises the health or life of the patient nor the reputation of the practitioner. This is *expectation*; we must know how to wait. If there is some pressing indication, of course we must fulfil it, for when life is menaced, what matter is it about the pregnancy? But, as a general rule, neither the health nor the life of the patient is in question. The woman desires to know whether she is or is not pregnant. And as long as the problem does not appear to be soluble with certainty we should make no resolutions. Let us wait and above all things wait without acting, if nothing creates an absolute necessity for action. Time is the best of all our means of diagnosis."

Abortion Induced by a Hair-pin: Death—The patient, aged 24, was the mother of one child and had had several miscarriages, presumably induced by herself. Having missed a menstrual period on March 5th or 6th, she introduced a hairpin into the uterus, the points downward. The pin slipped from her fingers and entered the womb, where she allowed it to remain until it should produce some symptoms. On March 27th Dr. Nesbit found the os closed, but the cervix enlarged and exceedingly sensitive; the body of the uterus was also very tender to the touch; there was no pyrexia. Up to this time the patient had been walking about as usual. A tupelo tent was introduced and on the next day two larger ones; in the evening several very offensive clots were passed, and during the night the patient flooded very freely. On the 29th there was evidently pelvic peritonitis; the temperature was 105° F., and the pulse 120. The cervix was pretty well dilated, and Dr. Partridge, who had been called in consultation, was able to touch the hairpin with the finger. The patient was anæsthetised, and after fifteen or twenty minutes' manipulation the foreign body which was lying across the right side of the cavity with its prongs embedded in the uterine wall, was disengaged and removed. The uterus also contained a mass which was evidently the greater part of an ovum which had lost its vitality some three weeks previously. Residual fragments of membrane were scraped out, and an inter-uterine douche of corrosive sublimate solution administered. The patient rallied well, and the temperature fell in the evening to 102·6°. Three days later the temperature was down to 99·8° and the pulse 102. That night the patient left her bed, in spite of the nurse's remonstrances, and walked about the room for twenty minutes. The next morning she presented signs of extensive peritonitis, and died six days later. The case is interesting because it is unusual, and verifies the fact that women do sometimes successfully resort to mechanical means for penetrating the uterine cavity in order to bring on abortion in their own person.—*New York Medical Journal*, Sept. 6th.

The Treatment of Pregnancy and Labour Complicated with Cancer of the Uterus.—In an article published in a recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* (Band X., Heft 1), Dr. Alfred Gönner relates six cases illustrating the above complication. In one case Cæsarean section, followed by removal of the entire uterus, after the method of Freund, was performed, with the result that the mother died in nine hours. In the second case the cancer was removed during labour with the galvano-caustic wire; and one month after the labour, and again four months after, bits of cancer were scraped away, with much temporary relief; but the patient died ten and a half months after labour. The third case was a most encouraging one. Premature labour was brought on in the thirty-fifth week, and a living child born. On the eighth day after delivery the cancer was removed by the galvano-caustic wire. Two years afterwards no trace of cancer could be found, and two and a half years afterwards the patient was naturally delivered of a healthy child. The fourth case was also very satisfactory in its result. The growth was cut away with scissors, and thus room gained for the passage of the child, which was delivered with forceps, but died from asphyxia. Two days after labour the cancer was thoroughly destroyed with the thermo-cautery. Two and a half years afterwards Dr. Gönner attended her for abortion with a vesicular mole, and found the cervix quite healthy. In the fifth case the growth was removed by cautery wire and cutting instruments during labour, and a living child born, but the mother only survived three months. The sixth case was treated in the same way, and a living child born; but the mother died four and a half months afterwards. These interesting cases, we think, tend to enforce the rule that in pregnancy complicated with cancer the first thing to be done is to remove as much of the cancer as possible; this proceeding being not attended with great risk, and often productive of much benefit.

The Remoter Dangers of Ovariotomy.—The patient, whose case is described in the *New York Medical Journal*, September 13th, had had an ovarian tumour removed some five or six years ago. The operation was a successful one and she made a speedy recovery, but the patient was subsequently much troubled by constipation and became subject to attacks of colic, in consequence of which she had become an inveterate pill-taker, remaining strong and robust notwithstanding. On August 5th, 1883, Mrs. M. took a dose of cathartic pills which operated freely; in the evening she partook of ice-cream and soon after was seized with violent colicky pains, which were temporarily relieved by morphia and hot fomentations to the abdomen. Pain and vomiting persisted; copious enemata of warm water failed to bring away any fæcal matter; there was an absence of tympanites and tenderness. On August 11th the vomiting was stercoraceous, and death occurred on the evening of the 12th. On exposing the abdomen *post-mortem*, a long white cicatrix, the line of the ovariotomy incision, could be traced from the pubes nearly to the ensiform cartilage; at its lower end, two inches above the pubes, a discoloured spot, half the size of the hand, was visible. Careful dissection showed that a portion of the ileum, about eighteen inches above the cæcum, was adherent to and incorporated with that part of the cicatrix corresponding to the lower angle of the original wound, and that around the short portion, between this point and the cæcum, a loop of small intestine was twice twisted, forming a kind of knot and a complete barrier to the passage of intestinal contents. The intestines and the cavity nearly everywhere afforded evidence of former inflammatory processes. The intestines were also extensively adherent to the sides and posterior wall of the abdomen, and being firmly bound down in this manner, the usual appearance of tympanitic distension of the abdomen was doubtless thus prevented.

Double Uterus and Vagina.—Dr. Dirner, of Buda Pesth, relates in the *Archiv für Gynäkologie* (Band xxii, Heft 3) a remarkable case of the above kind. The patient consulted a medical man because coitus was followed by involuntary escape of urine. He found that intercourse had taken place per urethram, and discovered and dilated a vaginal orifice. Connection henceforth took place through this canal, and pregnancy followed, which ended in abortion. After this she came under Dr. Dirner's observation at Professor Tauffer's clinic. It was found that vagina and uterus were double. Intercourse had taken place through the *left* vagina, and pregnancy in the *left* uterus. The right vagina was narrow and its orifice very small, the right uterus smaller than the left. Professor Tauffer treated the case by removal of the vaginal septum, as well as of a small urethral growth which was causing trouble. After this the patient became again pregnant, this time in the *right* uterus, and was delivered at term. It was noted that during labour the left uterus contracted at the same time as the right, and that after involution the right uterus was larger than the left.

Cystic Fibro-Adenoma of the Body and Neck of the Uterus.—Dr. F. Schatz describes a case of this rare form of disease, which will interest histologists (*Archiv für Gynäkologie*, Band xxii., Heft. 3). The uterus was enlarged, both by diffuse thickening of its lining membrane, and by polypoid growths, cervix and body being alike diseased. On microscopic examination the new growth was found adenomatous in structure; with cyst formation

towards its free surface, and at its deeper part muscular fibre. The muscular tissue of the uterus contained some small fibroids. Dr. Sehatz says that diffuse adenoma and polypoid adenoma have been described before; diseases limited to the mucous membrane. His case he believes to be the first on record in which the muscular tissue of the uterus was involved to a considerable extent.

A Caution to Laparotomists.—At the annual meeting of the American Gynæcological Society, Dr. Wilson, of Baltimore, read a paper on "Foreign bodies found in the abdomen after laparotomy," in which he stated that he had only succeeded in collecting 21 cases, of which only five had been published. Six occurred in America and fifteen in Europe. In five of the American cases, sponges were left behind, and in the other a forceps. In his own case ovariotomy had been performed on a woman five months advanced in pregnancy, and abortion took place eighteen days after the operation. A sponge remained in the abdomen for five months, and was discharged piecemeal through the walls of the abdomen, the woman recovering completely. Dr. Gaillard Thomas said that he was in the habit of attaching long pieces of tape to the sponges used to prevent their being lost. He had never left a sponge behind more than once out of his four or five hundred laparotomies. Dr. Jackson, of Chicago, stated that he had a list of the instruments and sponges used, which he examined after each operation. Dr. Dunlop made large incisions so as to allow of free inspection, and used large sponges. During the discussion seven other cases were mentioned, raising Dr. Wilson's number to 28. — *New York Medical Record*, October 4.

Changes in the Ovaries during Menstruation which can be Clinically Observed.—A recent number of the *Archiv für Gynäkologie* contains a short paper on this subject, by Dr. Meyer, of Dorpat. He has examined women in whom the physical conditions were such that the ovaries could be easily palpated, before, during, and after the menstrual period, and observed the following changes; In many cases he found an indubitable increase in size. He also found a difference in consistence, the gland feeling more elastic and tense. Only once did he find an ovary that seemed to get softer during menstruation. There were also changes in shape, the organs becoming more rounded, while in a few cases inequalities could be perceived on the surface. These changes generally affected both ovaries, often being more pronounced in one than in the other; but sometimes one ovary only appeared to be altered. The changes were perceptible between the third day preceding and the eighth day following menstruation. They were most marked between the second and fourth days of the menstrual flow. In one case Dr. Meyer thought he detected swelling of the tube. It will at once occur to our readers that in clinical observations of this kind many sources of error creep in; but we give Dr. Meyer's observations for what they are worth.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, November 28th, 1884.

Sir Andrew Clark, Bart., M.D., President, in the Chair.

Adjourned Discussion on Charcot's Joint Disease.

The discussion of Mr. Morrant Baker's paper, read at the last meeting of the Society, was resumed.

Mr. Barwell said there was now a feeling that many forms of multiple articular affection were due to a nerve lesion, and he thought there was especially strong evidence in favour of such a case for arthritis deformans. But was it therefore necessary to suppose that the nervous lesion was always identical, and always that called locomotor ataxy? He thought "Charcot's disease" a separate one. Both anatomically and clinically it differed from ordinary arthritis deformans; the one was an excess of hyperplasia, the other essentially an atrophy. The one was chronic in its onset, the other acute. Arthritis deformans selected the smaller joints, Charcot's disease the larger ones. Excess of normal and false movements predominated in all tabetic cases, while in chronic rheumatoid arthritis the opposite was true.

Sir James Paget was inclined to agree, almost completely, with Mr. Baker. In answering his question whether the disease was a new one, it would be necessary to prove that it was not an old one. Few could feel more deeply than he did what vast tracts of knowledge had in times past been overlooked. We could not study our own career, or observe, as science made progress, the number of things which had been constantly within our own sight or thoughts of which we had remained totally unconscious, without feeling that such a disease as this might have been overlooked in times past. Yet he did not believe that the older observers of cases of bone disease had overlooked it. It was said that these cases chiefly presented themselves in the out-patient rooms, and to surgeons at the workhouses. Well, he would remind the society that our teachers had studied their pathology in such places. John Hunter had collected hundreds of specimens from workhouses. George Langstaff, Cruveilhier, Stanley, had all been great collectors of bone cases, and yet, although these names covered a period of eighty years or more, they had never found such specimens as these, which were now well known in all museums. Had such cases as were exhibited this evening been present in any of the workhouses during the period referred to, their bodies would have been dissected and their bones preserved. Yet the fact was, that not one single specimen at all characteristic of Charcot's disease remained to tell the tale. Was the disease a neurosis, or was it rheumatic arthritis? It was neither one nor the other, but rather a disease made up of several different constituents, and appearing only at a time when, we knew not by what external conditions, all these constituents of disease were met with in one and the same person. The term "Charcot's disease" was itself an evidence of the obscure nature of the disease; it was the rule to give such obscure names to disease until their ultimate nature began to be made out, and then a more correct term was substituted. It would be wise, in attempting to define a disease, to proceed by way of analysing the various constituents of which it was composed; to see in what proportion each constituent was present. In rheumatic arthritis, for instance, in one case there was more gout, and in another more rheumatism. Then as to Charcot's disease, was it rheumatic arthritis altered from its ordinary fashion by the intervention of locomotor ataxy? Mr. Baker was doubtless right in saying that the characteristic of Charcot's disease was the atrophy without repair; in rheumatic arthritis there was atrophy also, but evidences of a reparative process were also present. Nevertheless if these two diseases could be broadly distinguished from one another, it was no argument that in locomotor ataxy there was no measure of rheumatic arthritis. It might possibly be that the spinal disease modified the rheumatic arthritis by interfering with the reparative processes. He could not quite accept the absolute distinctions drawn by Mr. Barwell, either clinical or pathological, and he thought there were not a few specimens which it would be difficult to classify at first sight. There was also in many cases yet another element, syphilis—not present in all cases, but a very common constituent. If we might assume the existence of three such diseases together, we might explain a very wide range of variation in individual cases. We could certainly say definitely that syphilis implanted in a person with gout was greatly modified in its later stages; so then we should have to analyse Charcot's disease, and endeavour to trace what diseases enter into its composition, and in what proportion each was found.

Dr. Ord had never had a case of Charcot's disease under his own care. He agreed with Mr. Baker in his general conclusions, yet he was compelled to recognise more than he had done in the matter of wasting. He agreed with Dr. Buzzard that there was actual wasting of bone substance quite independent of its wearing down. On the other hand, he could hardly admit the statement that there was scarcely

any attempt at repair. In all the cases he had carefully examined, he had found some outgrowths, and in a few he had seen something very like eburnation. He had thought much about this affection, and was inclined to include it under the head of chronic rheumatic arthritis, or as he would prefer to call it osteo-arthritis, which was a more neutral term. He then detailed some cases under his observation, in which the osteo-arthritis was greatly modified by a neurotic process; but he did not imply that this neurotic element was present in all cases.

Professor HUMPHRY agreed in the main with Sir James Paget, that this was a disease with which we were not familiar in olden time, for he went back to somewhat olden time. Until lately he had never seen such routings of joints, such deformations of articular surfaces taking place with such rapidity. He had worked much in museums without finding specimens. He agreed that it was probably a compound affection, between the old rheumatic arthritis and tabes dorsalis. The old affection was a wearing away proceeding from the articular surfaces, a resultant of a low inflammatory affection. In the new affection there was rapid decay, rapid wasting, or rapid removal of bone, well shown in the specimen he exhibited, which was taken from a woman, in whom it had only been going on for about three months. The whole head of the tibia was gone, the cartilaginous joint-surfaces remaining, showing that the process took place below the joint and not from it. He could not quite agree as to the entire absence of reparative power. It was curious what amount of reparative power existed in the bones of old people, side by side with extensive atrophy.

Mr. HUTCHINSON at one time was a believer in the special character of "Charcot's disease" and in the theory that it resulted from some active interference on the part of the nervous system. He had since changed his views, and now regarded these joint changes as made up in part of conditions which led to rheumatic gout, and associated with senile changes and with conditions of the nervous system which led to partial anæsthesia or inability to perceive pain. He thought the question might be much simplified by regarding the sensations of the ataxic patient as extremely dull. In this manner the painless retention of urine was explicable, and also the perforating ulcer of the foot, which resulted from pressure on a part devoid of common sensation. There were many conditions in which the nervous system was only passively engaged—permitting, but not actively causing. Between the pathological appearances in Charcot's disease and in chronic rheumatoid arthritis he admitted there was no abrupt line of demarcation; on the other hand, typical cases of the two differed widely, while the lesser degrees merged one into the other. He did not think that in many of the cases of Charcot's disease any history of gout would be got. On the other hand, many tabetic subjects did suffer from rheumatic arthritis, which got well and which never developed into the conditions now under discussion. The alteration in the cases was chiefly due to the fact that the patients continued to walk about. If a patient were placed in bed, and rested absolutely quiet, he never got eburnation. It was because he could bear rubbing of his joints for long periods that these peculiar changes resulted. This movement was hardly the whole cause, though a very important factor. Nerve function had failed in some peculiar way, and certain lesions of nutrition resulted, which permitted of these curious movements.

The PRESIDENT asked Sir James Paget as to his meaning of the expression "definite disease of the spinal cord" as associated with this joint affection; did he mean tabes, or some condition akin to it?

Sir JAMES PAGET explained that he was not disposed to accept Mr. Hutchinson's view that the nervous condition was merely a permissive one; he believed that the nervous system had the power of actually determining disease.

Mr. HULKE was quite unable to look upon Charcot's affection of joints as a distinct, a separate thing from the affections known for years past either as malum senile, rheumatoid arthritis or arthritis deformans. He used these expressions as labels to designate well known conditions without committing himself as to their exact nature. Taking a large number of cases, neither in their clinical nor pathological details did they show any essential differences; he exhibited a specimen in which the two diseases typically co-existed. Either we must imagine the coincidence of several diseases or their identity. As to Mr. Barwell's assertion that in Charcot's malady the lesser joints were not affected, curiously enough among the specimens sent from Paris by M. Charcot was a foot in which almost every joint was affected. As to the chronicity and sluggish nature of the disease, he would just say that he had recently had a case under care in the Middlesex Hospital which had commenced acutely. He felt, therefore, that this affection was really rheumatoid arthritis; it was sometimes associated with tabes, sometimes not so, just in the same way as tabes in many cases occurred without any joint affection. He was pleased to hear that Sir James Paget recognised syphilis as an important ætiological factor.

The discussion was then adjourned to the next meeting.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 2ND, 1884.

J. W. HULKE, F.R.S., President, in the Chair.

Cyst of Cerebellum.

DR. PYE-SMITH showed this specimen taken from the body of a man, aged 27. The symptoms had existed for about three months; they were vomiting, severe occipital headache, vertigo, double optic neuritis, hæmorrhages into the right retina. There was no paralysis, spasm or convulsion. He died from asphyxia. A simple serous cyst was found in the left lobe of the cerebellum, about the size of a walnut; there was effusion into the ventricles, but no meningitis. Several small cysts were found in both kidneys, and in the pancreas. Dr. Pye-Smith referred to the other cases recorded in the Transactions.

Dr. NORMAN MOORE asked if the kidneys were examined microscopically. In congenital cases, when the tissue between the cysts was examined, it had been found to contain normal Malpighian bodies—this would suggest that they were developed in the connective tissue, and might therefore be found in different parts of the body.

Dr. HADDEN said that the case that had been referred to was that of a woman who died with cerebral symptoms, and had a cyst in the occipital lobe, and there was a history of violence.

Dr. CARRINGTON had examined the kidneys in this case, and found the structure between the cysts normal.

Dr. HALE WHITE referred to two cases of cysts in all the viscera mentioned in the last volume of the Society's Transactions.

Dr. PYE-SMITH said that the kidneys were practically healthy, and in his former case also there was plenty of normal structure. The cysts might be formed in the connective tissue, but he thought they were retention cysts.

Intus-susception in the Adult.

Dr. LANCHESTER exhibited this specimen. The patient had been taken ill with diarrhœa, some tenesmus, and passed a little blood. He came to the hospital on the eighth day, when the rectum was found to be occupied by a mass which could be freely handled, but was evidently firmly impacted. Left lumbar colotomy was performed the next day, it being felt to be unlikely that the intus-susception could be reduced. The patient died 48 hours after the operation, from peritonitis. The invaginated portion was three inches in length, and it was held firmly in place by the mesenteric attachment; it might possibly have been an old affair.

The PRESIDENT asked which portion of the bowel was intus-suscepted, when Dr. LANCHESTER replied that it was the rectum.

Mr. CROFT asked if all the coats were invaginated.

Dr. WILKS thought that all the coats were affected; it was a rare specimen. He had only seen two cases in adults.

Mr. Godlee had only seen intus-susception in the adult in connection with tumour. Colotomy would not be advisable in children at any rate, as the intus-susception was usually at the ileocæcal valve.

The President referred to a case of Dr. Coupland's in which nearly the whole of the small intestine was intus-suscepted.

Dr. Lanchester had no doubt that all the coats were intus-suscepted. He had been able to form an idea of the size during life, and felt confident he could get beyond the tumour, and therefore opened the left loin. The affected portion might have sloughed had the patient lived.

Ulceration of Trachea and Œsophagus.

Dr. Carrington showed this specimen, taken from the body of a man aged 20. On July 9th patient had opened a cask containing ammonium carbonate, and was nearly suffocated by the fumes. Some hours later he was seized with cough and spat up some blood. Swallowing was almost impossible from that date, and he was brought to the hospital on July 11th, a few days after which it was found that a catheter passed into œsophagus and entered trachea. Signs of broncho-pneumonia developed and increased, causing his death on July 23rd. A fistulous communication was discovered between the œsophagus and trachea, two inches below the cricoid cartilage; it was elongated and longer on œsophageal than tracheal side. There was no thickening of the edges, or trace of new growth. The trachea and bronchi were acutely inflamed, and there were patches of broncho-pneumonia. There was no evidence of syphilis. Dr. Carrington suggested that there might have been a diverticulum of the œsphagus in which there had been a lodgment of food leading to suppuration and perforation.

The President thought that the history ought to be taken into consideration, and referred to a case recorded at another society in which ammonia had caused ulceration of trachea.

Dr. Wilks referred to a case he had shown in the early years of the Society in which there was ulceration of the trachea. There had been much dispute as to the nature of the ulceration, the majority believing it to be lupoid.

Mr. Bowlby asked whether any examination had been made microscopically. He had lately seen a case where there had been no suspicion of malignant disease, but at the *post-mortem* secondary growth had been found in the viscera.

Mr. Butlin had looked up the case Dr. Wilks mentioned, and thought it was probably a case of epithelial carcinoma; the present might be of the same nature.

Dr. Money mentioned a case where an apparently simple ulceration of the trachea was found to be due to new growth.

Dr. Carrington had examined the ulcer microscopically, but no signs of new growth were found.

Tumour of the Soft Palate.

Mr. Treves exhibited two cases of primary tumour of the soft palate. The first patient was a man, aged 68; the tumour occupied the whole of the left side of the soft palate. It was first noticed eight months previously. A precisely similar growth had been removed from the same part of the palate thirty-seven years previously. He tied the left common carotid artery, and removed the growth with the left half of the palate. The tumour was an alveolar sarcoma; it was faintly encapsuled. The patient recovered. The second patient was aged 56, with a growth on the right side of the soft palate of two months' duration. The right common carotid artery was ligatured, and the growth removed, the patient making a good recovery. The growth was of an adenoid nature. Primary tumours of this region were very rare.

Mr. Godlee had seen two cases of recurrent fibroid, and two of papilloma.

The President had seen three cases.

Mr. Bowlby thought that both were carcinomata: the cells were of an epithelial type in each.

Mr. Treves admitted that there was a similarity to carcinoma in the one called sarcoma, but there were some doubtful points, and the history was against the idea of cancer. The specimens were referred to the Morbid Growths Committee.

Congenital Hydrocele of Spermatic Cord.

Mr. John Poland said that the specimen was taken from a child 3½ years old. The child died of peritonitis three days after the hydrocele had been tapped. At the autopsy it was found that the sac of the hydrocele communicated freely with the abdomen, its walls were much thickened and lining shaggy from purulent lymph, and it contained sero-pus like that in the abdomen. The tunica vaginalis at the lower end of the sac was intimately blended with it, the lining membrane being smooth and somewhat inflamed. The hydrocele sac was somewhat constricted at the upper end where it communicated with the abdomen; the cord lay on its posterior wall, and was closely connected with it. The specimen was of especial interest as showing a partial closure at the external abdominal ring.

Infiltrating fibroma of the Thyroid.

Mr. Bowlby said that the patient had noticed her neck big three years before her death. The thyroid was swollen, and after a time appeared to grasp the trachea, and was stony hard. It narrowed the trachea and paralysed the left vocal cord. Dyspnœa anddysphagia supervened. Tracheotomy was performed with temporary relief. The tumour was excessively hard, the isthmus broad, and the lobes reached to the level of the bifurcation of the trachea. All the surrounding tissues were involved in the growth, and could not be distinguished. The trachea was much compressed in both directions, but not ulcerated. The structure was fibrous throughout, no alveolar structure.

Mr. Butlin had been much puzzled by this case. During life he had supposed it to be a malignant tumour. He entirely agreed with Mr. Bowlby as to the microscopical characters, but he still regarded it as a malignant growth, though there were no secondary tumours, but its mode of invasion of surrounding structures was very suspicious. It appeared not to be a hard cancer. Tumours of the thyroid were apt to be very peculiar, and he referred to two cases shown by Mr. Morris and Mr. Haward.

Dr. Norman Moore quoted Matthew Baillie as to tumours of the thyroid and ulceration of the œsophagus.

Dr. Goodhart referred to infiltrating fibrous growths in peritonæum and ovary.

Mr. Bowlby said that the tumour clinically was malignant, and he supposed that it ought to be classed with the sarcoma.

Card Specimens.

Dr. Walter Edmunds—Hypertrophy of the tibia.

Mr. Treves—A Specimen of Charbon.

Dr. J. J. Pringle—Pseudo-membranous ulceration of the small intestine in a fatal relapse of enteric fever.

Mr. Treves—Epithelioma of bladder with calculus.

Mr. Bowlby—Fistulous communication between Bladder and Rectum.

Dr. Paddison—Charcot's disease.

Dr. Norman Dalton—(1) Tumour of Bladder and Surgical Kidneys. (2) Chronic orchitis. (3) Cylindrical epithelioma of the sigmoid flexure with tubercle.

Dr. Carrington—Atrophy of the liver.

Living Specimen.

Mr. Treves—Congenital Deformity.

SOCIETY OF PHYSICIANS OF VIENNA.[1]

Friday, October 31st, 1884.

Professor Nothnagel in the Chair.

False Meningocele.

Professor Weinlechner showed a girl, aged 16, with a tumour on the head, which he declared to be a false meningocele, and which was due to a depressed subcutaneous

[1] Reported by our Vienna Correspondent.

fracture of the skull. The tumour was of the size of a man's fist, oval in shape, and extended from the right parietal eminence to the ear. When the girl cried, the swelling extended in all directions; when she was quiet, it diminished, and a distinct pulsation of the cerebral vessels was to be felt in it. It was bounded above by the margin of a semilunar bone which belonged to the right parietal eminence, at the posterior and upper part of this margin a defect of substance of a triangular shape could be made out. Above the margin the parietal bone was lifted up, and had almost a horizontal position; the margin of the bone could be felt in all directions, and below it the needle of a Pravaz' syringe could be introduced for two and a half centimetres without coming on any hard substance. At the lower part of the tumour the bone was not depressed, but was smooth and bounded by a margin of bone. The puncture made with the syringe discharged a straw-coloured liquid, resembling the cerebro-spinal fluid.

Congenital Lymphangioma.

Professor Weinlechner also showed a boy with a congenital lymphangioma on the left leg. From the middle of the outer surface of the thigh an elastic and fluctuating tumour of the size of a man's head extended as far as the internal condyle, including the patella. It consisted of three portions, the largest of which corresponded to the thigh, while the two others were attached to the patella and the internal condyle. By means of a Pravaz' syringe, a yellowish fluid, containing lymphoid cells, was withdrawn from the portions attached to the thigh and the patella, but from the lower part of the swelling no fluid could be obtained. The tumour must be considered a lymphangioma, cavernous in its inferior part, cystic in its upper. Professor Weinlechner intends to extirpate the swelling as far as possible, and treat the rest with iodide.

The Use of Antipyretics in Fever.

Dr. Jaksch (assistant to Professor Nothnagel) read a communication on a new antipyretic remedy. He had made a series of physiological and therapeutic experiments with the "chinolin bases," which had first been synthetically produced by Skraup. In the course of these researches he met with a body which must be looked upon as a secondary chinolin base, namely, "Tetrahydroparachinanisol," which had marked antipyretic properties. All the salts of this base dissolved easily in water, had an acid reaction and were distinguished by forming green salts when treated with ferric chloride or with any oxidising agent. On account of this quality Skraup and Jakseh called this base Thallin, and the salts derived from it Thallin salts. Dr. Jakseh had tried the efficacy of three of these Thallin salts, namely, the chloride, the sulphate, and the acetate, as well as another Thallin-base, the chloride of aethylthallin, in 86 various cases of disease attended with fever, as *e.g.*, pneumonia, enteric fever, erysipelas, &c., and he found that these substances had a pronounced antipyretic action when administered in doses of a quarter, a half, and three-quarters of a gramme. The speaker remarked that experiments with new antipyretics, kairin, chinolin, &c., had shown that drugs which were only antipyretics were generally of very little use. He therefore suggested that further experiments with this drug should be tried on patients on account of its distinct antipyretic character, but he could not in the meanwhile answer the question whether it would obtain a permanent place in the materia medica. It should be remarked that in contrast with kairin, chinolin, and similar drugs, Thallin, when administered internally, caused no disagreeable sensations such as vomiting, cyanosis, collapse, &c., that it only now and then caused perspiration and very seldom gave rise to rigors. The antipyretic effect lasted much longer than that of kairin, and the subsequent increase of temperature developed gradually. Thallin was administered according to the following formula: ℞. Thallin sulph. 2·00, divide in doses quatuor, vel. octo. To be taken in wafer paper. Dr. Jaksch had also experimented with another drug, viz., "Parachinanisol" which, according to Skraup was about equivalent to the half molecule of quinine, but the antipyretic effects of this agent were so inconsiderable that he did not think it worthy of further trial. Another derivative of chinolin, viz., the "Tetrahydroparaoxychinolin" with which Jakseh had only experimented on rabbits, proved a strong poison, animals to which doses of from 0·6 to 0·2 grammes had been given dying in the course of two hours with strong tonic convulsions.

Professor Nothnagel said, "I cannot help protesting in this place against an abuse, I can call it by no other name—an abuse which has generally extended in practice, namely, the tendency to treat a fever *à tant prix*. When the practitioner is called to a patient who sickened yesterday, and who, to-day, has a temperature of over 101°, and it is not possible to make a positive diagnosis, as no local affection is as yet discoverable—treatment consists in administering quinine or some other antipyretic. In order to do no harm one prescribes a small dose, but one does give quinine, thereby suggesting that the fever must be in some way removed. I have received the impression during the last six years or so, that the employment of quinine has become a reflex phenomenon. We have begun to emancipate ourselves from the opinions which were general fifteen or twenty years ago. I would suggest that the fear of a temperature of 102·5° owes its origin to the scientific employment of the antipyretic method introduced by Liebermeister according to the method of Brandt, which in itself is an excellent procedure, and which has added much to our resources. As the treatment by cold baths is attended with some difficulty, and patients have some aversion to it, one began to employ quinine, and since then this drug has been given on a much larger scale than digitalis, nitre, and nitrate of soda were employed in earlier times. The two latter have now fallen into disuse and only digitalis is now used as an antipyretic. I cherish the hope and the conviction that this false and erroneous employment of quinine will also in time be discontinued. I need not remark that the way in which quinine is, in most cases, administered, is quite incapable of diminishing temperature. Two, three, or five grains have no effect, nor, indeed, have fifteen grains if taken at intervals of twenty-four hours. Dr. v. Jakseh has already remarked that the fever is not a symptom to be removed in every case; the fever, according to my conviction, which is also the conviction of many other investigators, is a most beneficial phenomenon, one of those processes of reaction which we must look upon as compensatory; we do not, however, know in what way these processes work. With respect to the infectious diseases it has been suggested that the growth of micro-organisms is diminished in high temperatures; to me, however, they seem quite on the contrary to find more favourable vital conditions in fever. But attention has been drawn to a new point of view. I refer to the interesting writings of Metschnikoff, who is of opinion that the "Fagocytes" destroy the micro-organisms and render them innocuous, and that these processes find more favourable conditions at a high temperature. I would only just mention it on this occasion, as our knowledge in this direction is not at all complete. Moreover, I maintain that we do not shorten the duration of the course of an acute fever, even by a single day when we have succeeded in diminishing the temperature; we even know that there are typhoid processes which run a non-febrile course without any therapeutic treatment, and in which, nevertheless, death occurs. We know of a great many accidents occurring in the course of a febrile disease which do not depend upon the high temperature, but which are due to other conditions. I do not mean to say, however, that we may be indifferent to very high temperatures. A temperature exceeding 104° must be energetically combated, but a temperature of 102·5° does not require such energetic treatment, and the less so in diseases which have a short course. This depends very much on the individual, on the constitutional conditions and so on, and I only mention it *en passant*. In general we may say that a temperature which does not exceed 104° does not injure the patient. Every one who has had the opportunity of observing a case of recurrent fever knows that it is so. The patient suffering from recurrent fever lies in his bed with a temperature of 104°, 105°, and even 106°, quite untroubled, his sensorium is quite unaffected; when the temperature diminishes, the patient is exhausted, but we do not find that the high fever has done him much harm. To return again to the point from

which I started, I maintain that it is an abuse to administer antipyretic agents, especially quinine, in temperatures of 102° and 103°, on the very first day of the treatment, when one has yet no definite idea of the development which the disease-process will take, letting alone the practical point of view, that quinine must rise in price if we employ it in all cases in which bicarbonate of soda, hydrochloric acid, or some similar drug would do as well.

Dr. TELEKY remarked that those practitioners of Vienna who were of the school of Skoda had been accustomed to treat patients on the expectant plan, that they, for the most part, still followed this rule and did not at once prescribe quinine where the temperature was 102° or 103°. He would remark this fact, as the words of Professor Nothnagel might be considered as a reproach directed against the physicians of Vienna.

Professor NOTHNAGEL replied that he scarcely need remark that he intended no reproach, but that he meant to make a general scientific observation; he expressly said that he had observed this fact during the last six to ten years, and it was known that he had lived in Vienna only for two years.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, NOVEMBER 3RD, 1884.

Mr. J. S. TURNER, M.R.C.S., L.D.S., President, in the Chair.

Treatment of Fractures of the Lower Jaw.

SEVERAL interesting casual communications having been brought forward, Mr. F. NEWLAND PEDLEY, M.R.C.S., read a paper on "Some Points in Connection with the Treatment of Fractures of the Inferior Maxilla." The most common site, he said, for fractures of the lower jaw was close to the canine tooth, for the bone narrowed somewhat at this point, and the depth of the socket of that tooth tended still further to weaken it. The next most common seats of fracture were through the angle, and through the neck of the condyle. Multiple fractures were very common, and the existence of a second or third fracture should only be negatived after careful search. It was chiefly in the treatment of the more complicated cases that the aid of the dental surgeon was sought. Three-fourths of the cases of fracture of the jaw would get well under any simple treatment. At Guy's Hospital Mr. Bryant used for such cases a splint made of several thicknesses of plaster of Paris bandage, accurately moulded to the outer surface of the chin and jaw, and fixed by means of a four-tailed bandage. This splint was light, efficient and easy of application, but he thought the modification of Hammond's splint, which he would describe, would be pleasanter for the patient, and give equally good results.

Mr. PEDLEY then described the ordinary Hammond's splint. This was required only where there were multiple fractures, or when there was obstinate displacement. The first step in the preparation of this splint was the taking of models of the upper and lower jaws, and this was in severe cases no easy matter, even to a dentist. Then casts had to be obtained from these models; that of the lower jaw might have to be sawn across at the point of fracture and the fragments adjusted to their proper position. A loop of wire is then framed on the corrected model of the lower jaw, passing behind the last tooth on each side, and accurately fitting the necks of the teeth at the margin of the gum. The wire collar thus prepared is slipped over the teeth of the fractured jaw by reducing the displacement, and is secured to the teeth by means of binding wire passed between each tooth. In the modification of this splint in use at Guy's the necessity for model-taking and soldering was dispensed with. It was especially applicable when the fracture was situated anteriorly, and the displacement was not very marked. Instead of the main wire passing behind the last tooth on each side, it was passed between the bicuspids or any teeth posterior to these. The point of the wire was passed between the teeth on one side, across the tongue, and between the corresponding teeth on the other side. The portion of the wire lying on the tongue was then bent against the necks of the teeth on their lingual aspect; binding wire was next passed between all the teeth opposite which the main wire lay, except those contiguous to the fracture, and the loops tightened up and secured in the usual way. The ends of the main wire were either twisted together, or passed through a short piece of closely fitting metal tubing, bent over in opposite directions and cut off short. This last was the better plan, as there was less chance of displacing the fragments. The patient could now open and close the jaws at will. The splint should be worn for six weeks, or longer if necessary. In cases where firmly implanted teeth do not exist in each fragment of the fractured bone, Hammond's splint was not applicable, and some other form, such as Gunning's, must be used; but for all cases in which it could be applied, it was as efficient as, and far less irksome to the patient than, any hitherto invented. In conclusion Mr. Pedley referred to the use of Hammond's splint in cases of surgical division of the jaw for the purpose of facilitating operations of the tongue or floor of the mouth. In such cases it was a good plan, instead of sawing the bone through vertically, to make two oblique cuts, meeting at an angle; in this way the ends of the bone would lock into one another, and maintain their position more readily.

A long discussion followed.

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

SIR,—As the question of over-pressure in elementary schools has been submitted to, or rather forced upon, the medical profession for solution, contributions like those of Dr. Donkin, Dr. Drewitt, and others, which you have published recently are very acceptable, as they contain facts as well as opinions from which we may draw our own conclusions. The question is a very complicated and difficult one, and cannot be settled by the every-day experience of medical men. To form a fair and dispassionate judgment it is necessary we should know the details of the Code, its fitness to the average intelligence of poor children, the mode of its application by the schoolmaster, and its supervision by the Government Inspector; and these are details which are not within the knowledge of probably one medical man in a thousand. Medical men have moreover taken little part in the maturation of our system of popular education, or in its practical administration, as they are rarely found acting as members of school boards or managing committees, and seldom put their heads inside a school-house. On the other hand, the scheme of education has been slowly developed during a period of more than 20 years by men of both political parties, who, to say the least, are not inferior to medical men in intelligence, benevolence, and interest in the welfare of children individually and collectively, and who have a practical knowledge of the subject of education however mistaken some may think them to be from a purely sanitary point of view. It is an arena into which we should walk with great circumspection, and not rush in as some have done, to interrupt, or turn back, labours, the nature and details of which we are so imperfectly acquainted with.

Dr. Donkin's letter (the main facts of which are quite in accordance with my own experience), while aiming at upsetting Mr. Fitch's position equally upsets that of the schoolmasters and Dr. Crichton Browne whose report is so largely based on their statements. I think most medical men will agree with Dr. Donkin that the clause in the Education Code providing for the exemption of children from the Inspector's examinations is sufficient for the purpose if properly carried out. As quoted by Mr. Fitch it runs thus:—"The following, amongst others, will be considered reasonable excuses for either withholding a scholar

or not presenting him in a higher standard; delicate health or prolonged illness; obvious dulness or defective intellect; temporary deprivation, by accident or otherwise, of the use of eye or hand. If a scholar has failed in two subjects, or twice in the same subject, he may generally be presented again in the same standard." Now Dr. Donkin falls into the error of attributing to the schoolmaster the duties of making the necessary exemptions, and of believing that Mr. Fitch has done the same in his memorandum. The exemptions are made by the managing committee with the aid of the schoolmaster, the school visitor (who is in constant communication with the parents and homes of the children), and the medical certificates for non-attendance which have been sent in. It is obvious that if the system breaks down it is due to the ignorance of their functions, or neglect to obtain better advice, of the school managers, and it is the duty of the School Boards, which are local institutions, and not the central government (as represented by the Education Department), to provide the necessary medical inspection, and secure the proper exemption of children deemed unfit for educational discipline. For this purpose no medical men are so well adapted or more competent to perform the duty as the parish medical officers under whose auspices many of the children, in the poorer districts at least, first saw the light, and to whom their subsequent medical histories are well known. It would not be for the advantage of either the medical profession or the taxpayer that a central system of medical inspection of schools should be instituted, nor could real benefit be expected from a Government Department which sent out two sets of officials to keep a guard on each other. There would be the further disadvantage of the propagation of fads by medical experts, and the creation of more panics and personal collisions like those we have witnessed lately.

But to return to the letter of Dr. Donkin. Although it is the duty of the managing committees to make the exemptions, it is very probable that they leave the work almost entirely to the schoolmasters, so that his contention, if not technically true, is in fact correct. He proved clearly enough that the schoolmaster is either not competent, or is not to be trusted to withhold the children who ought properly to be exempted from inspection, and that he picks out the dull ones who are impervious to educational pressure, and who will not do him credit, but retains the delicate ones who might be injured by it, but who are bright and quick at their work. This is the schoolmasters' view of over-pressure, and it is very largely on these views that Dr. Crichton Browne's report is framed. Speaking of the requirements of the Code from children of different mental calibres, Dr. Browne says: "The clever children must be practically kept back, much to their mental and moral detriment, and backward children must be stimulated to a rank, 'spongy brain growth, and a straining effect that wrenches the whole system, and may permanently damage health, in order, if it may without irreverence be said, that the great modern giant, Examination, may have a huge meal." Dr. Drewitt's notes on chorea show that, if over-pressure has anything to do with its causation, it is among the bright and intelligent children, and not the dull ones, that its effect is observed; and anyone who has watched the effect of school work on children under their immediate observation will agree, I think, that it is the clever children who require keeping back, and that pressing dull children—like throwing water on a duck's back—does them no harm. The over-pressure which no doubt exists among pupil teachers and in schools for the better classes is always associated with the brighter pupils, and not the dull ones, and comes rather from within than from without, and there is no reason why these conditions should be reversed in the elementary schools. We can all of us sympathise with the schoolmaster in the trouble his dull children give him, but we cannot go so far as to relieve him of his responsibilities by certifying that the additional labour required to sharpen their intelligence is likely to do his pupils harm. Such children may be exempt from inspection on the grounds of incompetence, but not on that of over-pressure.

One word more about keeping-in. It is obvious that if a large number of schoolmasters band themselves together to discredit a system of education they would not be over-scrupulous in the means they employ for the purpose, and as keeping-in is one of the most objectionable features of our present system they would make the most of it, and the poor children would be the sufferers. Now I quite agree with Dr. Drewitt that corporal punishment has been unwisely discredited, and for this change of opinion medical men are largely responsible from the readiness with which they have come forward to bear witness against it. For four years I was surgeon to one of the large county prisons in Yorkshire, and it was part of my duty to witness, and if necessary to put a stop to, the operation of flogging prisoners for breaches of prison discipline, and the birching of young boys for petty offences; and although I saw a large number of such punishments administered I never once saw any injury arise from them, and I believe that idle school boys, like vicious ones, would be found more amenable to the occasional application of the birch rod, and that it would be less injurious to their health than the present system of keeping-in; and it would, moreover, remove from the schoolmaster a temptation to use his children unfairly, as it would require considerably more courage and trouble on his part to flog a boy than to simply keep him away from his meals and games.

I am, Sir, yours, &c.,
CHARLES ROBERTS.

November 27th, 1884.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 1st instant, viz:—

Thomas U. Gray, L.R.C.P. Lond., Essex Road, N., student of St. Bartholomew's Hospital; George W. Mullis, L.S.A., Northampton, Guy's Hospital; and Joseph J. Dickinson, L.S.A., Bow Road, London Hospital.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 27th, 1884:—

Charles Plumley Childe, King's College; Upendra Krishna Dutt, St. Mary's Hospital; Albert Robert Jolliffe, Charing Cross Hospital; Mordaunt Percy Ladell, London Hospital; Selwyn Warner Quartley, Middlesex Hospital; Henry Albert Reed, Guy's Hospital; Adam William Thorburn Steer, St. Bartholomew's Hospital; Charles Henry Taylor, King's College.

The following gentleman also on the same day passed the Primary Professional Examination:—

Jno. Henry Garret, University College.

Dr. Paul Grawitz.—Dr. Paul Grawitz, of Berlin, Assistant of Professor Virchow at the Pathological Medical Institute, has just been appointed to the charge of the Carnegie Laboratory of Bellevue Hospital Medical College, New York.

The London Hospital.—Mr. Frederic S. Eve, F.R.C.S., was elected assistant surgeon to this institution at a Court of the Governors held on the 3rd instant. Mr. Eve holds the appointment of Pathological Curator of the Museum of the Royal College of Surgeons, and of Assistant Surgeon to the Royal Free Hospital.

Royal Institution of Great Britain.—The following lecture arrangements are announced:—Professor Tyndall, D.C.L., F.R.S.—Six lectures (adapted to a juvenile auditory) on "The Sources of Electricity," on Dec. 27 (Saturday), Dec. 30, 1884, Jan. 1, 3, 6, 8, 1885. Professor Henry N. Moseley, M.A., F.R.S.—Five lectures on "Corals and other Colonial Organisms," on Tuesdays, Jan. 13, 20, 27, Feb. 3, 10. Professor Arthur Gamgee, M.D., F.R.S.—Four lectures on "Digestion" (the subject to be continued after Easter), on Tuesdays, March 3, 10, 17, 24. Professor Dewar, M.A., F.R.S., M.R.I.—Eleven lectures on "The New Chemistry," on Thursdays, Jan. 15, 22, 29, Feb. 5, 12, 19, 26, March 5, 12, 19, 26.

Sanitary Assurance Association.—On Wednesday, December 3rd, Dr. Norman Chevers, C.I.E., delivered an address at the Parkes Museum, W., on the objects of the

Sanitary Assurance Association. Sir Joseph Fayrer, K.C.S.I., F.R.S., in the chair. Dr. Chevers urged that that the sanitary condition of London was such that no householder should be satisfied without the assurance of some competent authority that his dwelliug, whether a palace or a cottage, was free from drain contamination. He expressed an opinion that consumption was hereditary principally because successive generations ueglected to remedy the sanitary defects from which their forefathers suffered, and pointed out that unless dwellings were properly disconnected from the main sewers, such sewers might prove to be of the greatest possible danger to the whole community in case of any epidemic.

Death of Sir Alexander Grant, Bart.—Sir Alexander Grant, Vice-Chancellor and Principal of the University of Edinburgh, died on Sunday last of apoplexy, at the comparatively early age of 58. Sir Alexander was elected Principal in succession to Sir David Brewster in 1868, the election very nearly falling to the late Sir James Simpson. His tenure of office has been coincident with important events in the history of the University; five additional Chairs have been founded, new degrees instituted, and important additions made to the endowments of the Institution; while the attendance of students, more especially in the Faculty of Medicine, has so greatly increased as to render necessary the erection of an extensive and splendidly appointed medical school. Among the questions in the discussion of which he was led to take part was that of the medical education of women, with regard to which he stoutly defended the policy of the University in declining to allow mixed classes, though permitting the professors to give separate medical instruction to ladies. In consequence of Sir Alexander Grant's death, the classes at the University did not meet on December 1st, the day following his decease.

Twins and Triplets in the Austrian Empire.—How numerous these are may be judged of by the numbers which occurred in 1883. In that year there were 20,326 twins born, 19,269 living, and 1,057 dead. The triplets were 315 in number, 300 living, and 15 dead. The greatest number of twins (5,976) were born in Galicia, and then follow Bohemia with 5,012, and Lower Austria with 2,158. Of the triplets, 90 were born in Galicia, 63 in Bohemia, and 33 in Lower Austria.—*Allgemeine Wiener Medicinische Zeitung*, Nov. 11th.

The Mortality in the Russian Hospitals.—Professor Botkin, of St. Petersburgh, at the last meeting of the Commission on Public Health, explained, in reference to the frightful mortality which took place in the Russian hospitals, that the patients really died of hunger, the sum appropriated to supplying them with food being quite insufficient for this purpose. Moreover, the low wages which the nurses receive leads to their pillaging even the scanty supplies of the patients. — *Allgemeine Wiener Medicinische Zeitung*, Nov. 4th.

The Elevated Railroad and Injuries of the Eye.—This railroad, which is one of the features of New York, has proved quite prolific in injuries of the eye caused by the fine steel filings thrown into the air by the action of the brakes, and the sparks from the locomotives have occasionally caused injuries of the same sort. A case of the latter kind came before the City Court a short time since, and the jury awarded 250 dollars to the sufferer. The judgment was appealed from, but the General Term has affirmed it. Chief Justice M'c Adam in delivering the opinion said that the elevated railroads were bound to use the most approved method for preventing the escape of sparks.—*New York Medical Record*, Nov. 15.

Death of Professor Fonssagrives. — Professor Fonssagrives, the well-known author of several valuable works on hygiene, has just died of the cholera after 55 hours illness. He had been, however, the subject of an uncontrollable serous diarrhœa for ten days before, which he had acquired after a visit to L'Orient, where four cases of cholera had appeared. Educated as a naval surgeon at Rochefort, he filled several posts of distinction in distant regions, and obtained by *concours* the post of Professor in the School of Naval Medicine at Cherbourg, which, on the death of Professor Ribes, he exchanged for the chair of hygiene in the Montpellier Faculty of Medicine, to which was added the title of Médecin en Chef de la Marine. A facile and yet a practical writer, he produced several works on hygiene some of which have become classical, and others have attained great popularity. His contributions to the "Dictionnaire Encyclopédique des Sciences Médicales" are also numerous, many of them being of considerable value.

Professor Heinrich Neumann.—Dr. Heinrich Neumann, Professor of Psychiatry in Breslau University, has recently died at the age of 70. After the termination of his studies at Breslau, he was for a long time employed at the lunatic asylum at Leubus, and in 1852, he founded the asylum at Pöpelwitz, near Breslau, becoming at the same time a *privat-docent* in the University. Later on a Psychological Klinik having been established in Breslau, its direction was confided to him. Professor Neumann, besides his *Lehrbuch der Psychiatrie*, acquired a great name for his Shakespearian monographs, especially those relating to Lear and Ophelia.

The Embargo on Rags.—The effect of the embargo upon the importation of rags is likely to be badly felt by the consumers of white paper. The fact that rags are not arriving in this country has already decreased the supply of paper-stock, as the mills are not making so much as formerly, and one very prominent manufacturer says that 84,000 of the 260,000 tons of rags used in the manufacture of paper in this country are imported, and as the import has ceased, the effect on trade is to put up the price of paper, lessen the working-hours in mills, and cause unprecedented stagnation in trade.

Certificates of Insanity.—A case recently reported in the "Maine Law Reports" brings up the question whether a physician is responsible in a civil suit for damages for the incorrectness of the certificate given in an examination of a person alleged to be insane, and upon which a commitment had been issued. The Court held that in a case of this kind any defects in the form of the certificate should have been rectified by the committing magistrate, and that if the law had not been fully complied with, the order should not have been made. For any fault of this kind, which was more legal than medical in its character, the magistrate was liable rather than the physician. What the latter was liable for was an untruthful or malicious statement of facts, or the opinion as to insanity based upon them. If the physician should certify to an examination which in fact had not been made, such a breach of professional honour would, no doubt, make the offender liable in a suit for damages. A plain and honest statement of facts, as discovered by the physician, with a carefully prepared opinion based upon these facts, would never subject a physician to the danger of a verdict in case he should turn out to be mistaken.

The Berlin Dental Institute.—One of the great events of the past month at Berlin, has been the opening of the Dental Institute set on foot by von Gossler, the Minister of Public Instruction. Its necessity was shown by the fact that at the Surgical Clinic, the chief place of resort for diseases of the teeth, there have been annually, in round numbers, 180,000 teeth extracted. Moreover, there has been wanting a centre of instruction in practical dentistry, which has undergone such great development during recent years. It will be one of the objects of the new institution to supply such instruction and to render the country independent of foreigners in this respect. A distinguished surgeon, Professor F. v. Busch, has been appointed the director, and Herren Paetsch, Müller and Sauer are the teachers. The programme for the ensuing winter session has just been published by the university, and is of a very comprehensive character. Lectures are to be delivered on, (1) General Surgery; (2) The Diseases of the teeth and mouth; (3) The theory of the art of stopping (*Plombirungkunst*); (4) The normal and pathological histology of the teeth, with especial reference to the lower organisms, met with in the mouth; (5) Theoretical introduction to mechanical dentistry. Besides these theoretical lectures, practical instruction will be given at the

polyclinic on diseases of the teeth and mouth, and on extraction and stopping of teeth. Any applicant is to be treated free of expense, but for the material employed fixed charges will be made. For example, extraction of teeth without anæsthetics, will be without charge, while for stopping teeth, from 6*d.* to 1*s.* will be charged for the material employed. In cases of obvious necessity, the director may excuse these payments.

Anti-Vivisectionists in Trouble.—That violent anti-vivisectionist, Ernst Heinrich von Weber, has recently been sentenced to eight weeks' imprisonment. In the journal entitled *Der Thier- und Menschenfreund*, of which he is the editor, he published, under the heading "Vivisection of a Man," a statement that about eight years ago a Jewish physician of Osnabrück had made a *post-mortem* examination of a man while only apparently dead, and therefore had performed vivisection on him. Dr. Pelz, who had performed the *post-mortem* in question, summoned him before a court of justice with the above result. A clergyman, of Munster, also, who was the author of the article was sentenced to six' weeks imprisonment.

Infant Feeding and Summer Diseases.—In a paper read by Dr. Earle at the Chicago Medical Society (*Boston Medical Journal*, September 11), he came to the following conclusions:—(1) The most frequent infantile disease in Chicago during the summer is entero-colitis. (2) Excluding causes of infant mortality largely beyond our control, improper feeding is one of the chief causes of the great number of deaths. (3) Mothers should suckle their children, and in lieu of this a wet-nurse should be procured. If this is impossible a mixed diet is preferable, and, lastly, an artificial diet must be resorted to. (4) Artificial foods containing a considerable amount of casein are found to be a cause of indigestion and summer diseases. (5) In many cases cow's milk diluted with water does not seem to agree with children. Barley-water or rice-water, as the diluent, seems to make a more physiological food. (6) Condensed milk seems to agree with a considerable number of children, but in many cases a sufficient quantity is not used to nourish a child. Used in proper quantities, and diluted with rice or barley water, it is without doubt one of the best artificial foods. (7) Cream, mutton broth, and white of egg are valuable adjuncts to the dietary of children. (8) Whatever the artificial food a child is having, the physician should examine frequently for evidence that it is a proper food as regards quantity and quality. The normal elevation of the fontanelle and an increasing weight are among the conditions denoting a satisfactory nutrition.

Effects of a Pretended Oophorectomy.—A German girl entered St. Francis' Hospital, with a history of having been in nearly all the hospitals in the city for severe dysmenorrhœa, pelvic pains and epileptic seizures. She professed to live without eating, but it was discovered that she obtained bread in some surreptitious manner. Dr. Gillette found prolapse of the ovaries, and the patient was very anxious to have an operation performed. Thinking it a good case in which to try the influence of mind over matter, Dr. Gillette made all the necessary preparations for öophorectomy, placed the patient on the operating table, made an incision into the subcutaneous fat of the abdominal walls, and closed the wound. The patient improved greatly after the pretended operation. Lately, however, she is said to have had a return of the symptoms, and to have presented herself at several hospitals, desiring that something more than the ovaries should be removed.—*New York Medical Journal*, August 2.

Smallpox in New South Wales. — It is stated in a contemporary that smallpox has made its appearance again in Sydney. "Under our local laws we deal with it very trenchantly. Doctors and householders are bound under a penalty to report every suspicious case. Whenever the disease is pronounced to be smallpox, the patient is, if willing, removed to the quarantine ground, as well as all the persons who have been living in the house. The premises are then disinfected and quarantined for 21 days. In this way we have stamped out smallpox more than once, and hope to do it again; and the opinion here is that if in Europe and America the same vigorous policy were pursued, smallpox would be stamped out there too, and Asia alone would remain as the danger to the world. This time none of the patients have died, and there has been only one new case during the last week. All the cases but one have been developed in somewhat unsanitary abodes. An International Sanitary Conference has just commenced its sittings in Sydney, each colony contributing a medical officer. One of the objects aimed at is to secure uniformity in quarantine arrangements. The quarantine term for smallpox in Victoria is only 14 days, while in New South Wales it is 21. The medical authorities do not agree as to the term of the incubation of the disease, and on this point a bit of evidence has just turned up which will be of interest to the Faculty in England as well as in Australia. Last week the health officer in Melbourne pronounced the colony clean because 14 days had elapsed since the isolation of the last patient. But within 24 hours the husband of this patient was found to have contracted the disease, so that a 14 days' quarantine is proved not to be sufficient."

Cobra-Poisoning.—The following are the conclusions arrived at by Dr. Wolfenden, in a paper, published in the *Indian Medical Gazette* for September, entitled "Report of investigations into the Chemical Nature and Physiological Action of Cobra-Poison." "Summing up the results of these investigations, which are by no means yet to be regarded as complete, there are in cobra-poison two distinct venoms: globulin-venom and albumin-venom. They exist probably in different proportions in different secretions, but these two are always present. The globulin-venom is destroyed by high temperature, but the albumin-venom is not so affected. The globulin-venom poisons the respiratory centre, producing no paralysis of muscles; the albumin-venom does not affect the respiratory centre, but produces marked and progressive motor paralysis. I may here mention that, from the results of some investigations I have for some time been making upon the blood of many animals, I cannot consent to the generally received opinion that cobra-venom exerts no influence upon the blood. My investigations, which will shortly be published, have convinced me that it decolorizes, by driving out the hæmoglobin, a large proportion of the discs, and breaks up a large number of the white discs completely, filling the plasma with minute granules. The bacterial forms, which are present in such large numbers, I do not think have anything to do with the activity of the venom. When recovery takes place from poisoning with a dose insufficient to kill, it is not improbable that a condition of blood-poisoning may supervene secondarily, as in one of the cases I have quoted. The globulin-venom is slower in action than the serum-albumin, and a longer period often elapses after the injection before symptoms supervene or terminate life. The globulin is very deadly, and when once the symptoms have supervened, asphyxia rapidly ends the existence of the animal."

Mortality in Lying-in Hospitals.—Dr. Halliday Croom writing to the *Scotsman* in reference to the proposed Maternity Hospital in Edinburgh, calls attention to the fact that since the introduction of antiseptics and absolute care with regard to cleanliness, the mortality in the well-known lying-in hospitals has diminished to almost that of out-door practice. In support of this statement, he quotes, the following table showing the mortality during the last eight years in the Pavilion Tarnier of the Paris Maternité.

1876.....	88 accouchments	1	death.
1877.....	204 ,,	2	,,
1878.....	234 ,,	2	,,
1879.....	182 ,,	1	,,
1880.....	155 ,,	0	,,
1881.....	235 ,,	0	,,
1882.....	185 ,,	0	,,
1883.....	147 ,,	0	,,

It thus appears that since the year 1880 there has not been a single death in the Pavilion Tarnier, even though the deliveries extended to considerably over 700. The Maternity Hospital at Prague, he adds, shows even more strikingly the advances made in the reduction of maternal mortality. "This hospital, as is well known, is a large

teaching institution for better students and midwives under the charge of Breisky and Weber. Since 1878 the antiseptic method has been carried out with the greatest rigour, and a glance at the reports of the hospital will show that the mortality has fallen from 11 per cent. in 1869 to *nil* in 1882. To take one example more. In Copenhagen antiseptics have been carried out since 1870 by Stadtfelt, the result being that the mortality from puerperal fever has fallen to almost *nil*. Let me compare the mortality of the town of Copenhagen with that of the lying-in hospital, and statistics show that so long as the antiseptic method was *not* employed in the hospital, the mortality was five to seven times greater than in the town; but exactly in proportion as this method has been carefully carried out, so has the mortality of the hospital fallen, until in 1881 the mortality of hospital and private practice became almost the same. Again, in London, in Queen Charlotte's Lying-in Hospital, where puerperal fever used to be the scourge, the death-rate has fallen to 1 in 350."

Mr. Vanderbilt's Munificent Donation.—The American journals are naturally congratulating themselves on the noble gift of half a million of dollars to the College of Physicians and Surgeons, of New York, part of it being about to be expended in the acquisition of a piece of land of 350 feet in length, and 200 feet in width. This is much more than is wanted for the new buildings to be erected, which is, of course, one of the chief benefits derivable from the endowment. "He has had the project in his mind," it is said, "for more than a year, looking upon the medical profession as so largely entrusted with the lives, health, and comfort of the community. It is for the interest of all that its practitioners should receive the best possible education, and he wished to supplement the individual exertions of the doctors for that end by such material aid as would enable them to carry out the necessary improvements in medical teaching. Viewed in this light, his donation is of much wider importance than the benefit which it confers on this particular institution. It is an example and an admonition to the generous and public spirited everywhere, that wealth judiciously expended in the support and equipment of medical schools, is a public benefit, as much so as if it were devoted to the establishment of hospitals and dispensaries."

Child-Marriages among the Hindoos.—The native Press has lately been discussing a subject of immense practical importance. With reference to the death of the Hon. Rai Kristo Das Pal, at the comparatively early age of 45, the question arose—Why do all the leaders of native thought in India die young? The majority of the papers answered it by pointing to the unhealthy conditions under which an intelligent Hindoo is born and is obliged to work. His mother, probably his father also, was a mere child at his birth. He himself marries as a mere child, and at 21 or 22 has the cares of a large and increasing family upon him. He has no breathing-time, or happy independence in early manhood, like the youths of Europe. He is forced by necessity to be precociously old, and in what we should call early middle-life he finds himself prematurely worn out and exhausted. Thus the burden of the complaint is the custom of child-marriage. Certain educated Hindoo gentlemen are calling upon the Government to legislate against these enforced child-marriages, but these are matters in which it cannot interfere. Such social reform must be brought about within the society itself; and although its accomplishment is unlikely to be speedy, the educated part of the community should be encouraged to persevere in their crusade against ignorance and prejudice, in the hope of ultimate success.

Counter-opening and Drainage in Bullet-wound of Head.—The patient shot himself in the forehead, and the injury was followed by hemiplegia and coma. Dr. Fluhrer ascertained the direction of the ball by probing, removed it by a counter-opening at the back of the head, and maintained drainage by passing a rubber tube through the entire wound. The paralysis gradually cleared up, and the patient is now, three months after the shooting, in apparently excellent health.—*Boston Medical and Surgical Journal*, May 29th.

APPOINTMENTS.

Blackmore, Alfred, M.R.C.S. Eng., and L.S.A. Lond.—Medical Officer to the First District, Township of Manchester, *vice* Mr. R. M. Mann, deceased.

Brogden, R. W., M.R.C.S., L.R.C.P.—House Physician to Guy's Hospital.

Clarke, James Adams, L.K.Q.C.P. Ire., L.R.C.S.I.—Medical Officer to the Bushey District, Watford Union, *vice* Mr. G. A. Hicks, resigned.

Hall, Alfred, M.R.C.S.—Medical Officer to the Calton District, Ashbourne Union, *vice* Mr. J. B. Hall, deceased.

Jones, W. W., M.A., M.B. Oxon, B.Sc. Lond., M.R.C.S.—Resident Medical Officer of the Convalescent Hospital of the Manchester Royal Infirmary, Cheadle.

Lamb, William, M.D., and C.M.—Medical Officer to the Arnold District, Basford Union, *vice* Mr. R. S. Wallace, resigned.

Langford, Henry Edward, M.D. Edin., M.R.C.S. Eng.—Medical Officer to the Kidderminster No. 2 District, Kidderminster Union, *vice* Dr. Roden, deceased.

Murchison, F. F., M.B., M.A.—Medical Superintendent of Peckham House Asylum, Peckham, S.E., *vice* J. Ansell Brown, M.R.C.S., L.S.A., resigned.

Salvage, J. V., M.S., M.B. Durham, M.R.C.S., L.R.C.P.—House Surgeon to Guy's Hospital.

Shackleton, Edmund, L.K.Q.C.P., L.R.C.S.I., and L.M.—Medical Officer to the Ninth District, Croydon Union, *vice* Mr. W. Milligan, resigned.

Stowers, J. H., M.D.—Physician to the Department for Skin Diseases, North West London Hospital.

Symons, John George R., M.R.C.S. Lond., L.R.C.P. Edin.—Medical Officer to the Third District, Holsworthy Union, *vice* Mr. E. T. Pearce, deceased.

White, E. Wood, B.A., M.B., B.ch., Univ. Dub.—Honorary Surgeon to the Birmingham and Midland Eye Hospital, *vice* Edwin Cheshire, F.R.C.S., resigned.

VACANCIES.

Addenbrooke's Hospital, Cambridge.—Resident House Physician. Salary, £65 per annum, with board, lodging and washing in the Hospital. Candidates must be duly registered. Applications with qualification and testimonials to be sent to the Secretary (from whom further particulars can be obtained), on or before Dec. 9th.

Birmingham and Midland Eye Hospital.—House Surgeon. (*For particulars see Advertisement.*)

Depwade Union.—Medical Officer to the Fifth District in succession to Mr. F. R. Rose, resigned. Area, 13,571. Population, 6,784. Salary, £90 per annum.

East Suffolk Hospital.—House Surgeon. Salary £100 per annum, with board, lodging and washing. Candidates must be doubly qualified and registered, and be unmarried. Applications with testimonials to be sent to the Secretary, on or before Dec. 10th.

Edmonton Union.—Medical Officer to the Waltham Abbey District, in succession to Dr. Arthur Priest, resigned. Area, 11,870. Population, 5,368. Salary, £87 10*s.* per annum.

Herts County Asylum.—Medical Superintendent. Salary, £500 per annum, with good family residence, unfurnished, together with other allowances. Candidates must be duly qualified and registered under the Medical Act, and have not less than five years experience with the insane, and to be between 33 and 40 years of age. Applications, with copies of testimonials, to be sent to the Chairman of the Committee, on or before December 14th.

Ratcliffe Infirmary, Oxford.—Honorary Physician. (*For particulars see Advertisement.*)

Scarborough Union.—Medical Officer to the Workhouse, in succession to Dr. A. C. C. De Renzy, resigned. Salary, £70 per annum.

The Guest Hospital, Dudley.—Two Honorary Surgeons.—Candidates must be Fellows, Members, or Licentiates of the Royal College of Surgeons of England, Edinburgh, or Dublin, and possess a registered qualification in medicine. Testimonials and certificate of Registration to be sent to the Secretary, on or before December 15th.

The Middlesex Hospital, N.—Assistant Physician. (*For particulars see Advertisement.*)

The Victoria Hospital for Children, Queen's Road, Chelsea, S.W.—House Surgeon. Salary, £50 per annum, with board, lodging and laundry. Candidates must be Fellows or Members of the Royal College of Surgeons, England, and Licentiates of the Apothecaries, or of the Royal College of Physicians, or Graduates in Medicine of any University recognised by the Medical Council. Applications, with copies of testimonials, to be sent to the Secretary, at the hospital, on or before December 13th.

University of Edinburgh.—Examiner in Medicine. (*For particulars see Advertisement.*)

Victoria University. — External Examiners in Physiology, Anatomy, Pathology, and Systematic Surgery. (*For particulars see Advertisement.*)

DEATHS.

Dalgliesh, W. M., M.D., at Masham, Yorkshire, on November 25th, aged 79.

Dew, Edward, M.D., at Coleherne Road, South Kensington, on November 28th, in his 81st year.

Farley, G. C., M.D., late of Henwick Lodge, Maidenhead, on November 21st.

Seymour, Richard, M.D., at 3, Palace Square, Upper Norwood, on November 28th, aged 76.

STANWELL, WM., M.R.C.S., at Rochdale, on November 13th.
THOMAS, LLEWELYN, M.D., at 15, Weymouth Street, Portland Place, on November 26th, aged 36.
WADE, CHARLES, M.R.C.S., at Hatfield Broad Oak, Essex, on November 28th, aged 40.

NOTES, QUERIES, AND REPLIES.

WHITTLE AND HUTCHINSON FUND.

The following contributions have already been promised:—Dr. J. Cameron, £10; Dr. W. Carter, £5 5*s.*; Dr. R. Gee, £5 5*s.*; Dr. J. B. Nevins, £5 5*s.*; Mr. H. O. Thomas, £5 5*s.*; Dr. Macfie Campbell, £2 2*s.*; Dr. Crawford, £2 2*s.*; Mr. R. Hamilton, £2 2*s.*; Dr. D. M. Williams, £2 2*s.*; [Dr. W. Alexander, £1 1*s.*; Mr. R. Jones, £1 1*s.*; Dr. McClelland, £1 1*s.*; Dr. Rich, £1 1*s.*; Dr. Robertson, £1 1*s.*; Dr. J. H. Wilson, £1 1*s.*

Gentlemen wishing to contribute will please send their remittances to Dr. Nevins, 3, Abercromby Square, or to the Whittle and Hutchinson Fund, North and South Wales Bank, Hardman Street, Liverpool.

THE OUTBREAK OF ENTERIC FEVER AT ST. ALBANS.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In your notice of Mr. Shirley Murphy's report on an outbreak of Enteric Fever at St. Albans, you say:—"Mr. Murphy after a long and laborious investigation succeeded in tracing the fever to the milk of a certain farmer Z." Permit me to say that this report has added nothing to the knowledge of the outbreak as it had been investigated and reported on by myself. There is, however, this difference, that while the same conclusions were arrived at by me in a fortnight, it has taken Mr. Murphy four months to report, notwithstanding that the facts were all cut and dried for him—the date of my preliminary report, of which I enclose you a copy, is June 4th; that of Mr. Murphy's, October 17th. Mr. Murphy has had the grace, as all who know him would expect, to make this "recognition" of my work in his report, and with his remarks before you, it was scarcely too much to expect you to do the same. As I am not actuated by personal motive, and still less by any wish to detract from the merit which may legitimately belong to Mr. Murphy, but only by the desire to shew that the whole intelligence of the country in matters relating to the investigation of disease is not centred either in the permanent or supernumerary staff of inspectors of the Local Government Board, I subscribe myself,

Sir, yours &c.,
M. O. H.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In one of your notes in the *Medical Times* of November 29th, speaking of Mr. Murphy's report upon the outbreak of Typhoid in St. Albans, you say—"it is by no means improbable that the chamber slops, and the water in which the sheets and soiled linen of *the earlier cases* had been washed, may have been thrown on the ground in the vicinity of the well." In reading this remark, it seems to me that you are under the impression that typhoid cases occurred at the farm anterior to the epidemic throughout the town, which is not the case. The outbreak in Camden Town began on July 28th (1883), up to which time no illness had occurred in Mr. Z.'s household; on the 6th of August one member of the family was seen for a febrile attack, attended with diarrhœa, this lasted about ten days; five years previous to this he had had typhoid while living in Scotland, so that although the symptoms did not enable me to negative typhoid (in an abortive form), the history makes it highly improbable. But if it had been it cannot be regarded as the cause, occurring on the 6th of August, while the cases in Camden Town date from July 28th.

A visitor at the farm became ill on the same date (August 6th), returned to his home in London the same day, and went through a genuine attack of typhoid: here again we have a product, but not the source of the infection coming to the outbreak here in the early summer. There were no cases at the farm before the outbreak; a female servant left at Christmas, and some time after leaving had an attack of typhoid; her home was two miles from the farm, and there is nothing to show that she became a fresh source of infection although her case in connection with the outbreak in the early summer indicates that the infection, whatever its source, had abated, yet it had not been got rid of. About the end of May, a new female servant came to the farm. On the 10th of June she was taken ill, and went through a decided attack of typhoid. *This is the only case which has occurred at the farm*, but the date of attack is so late, and besides, when she became ill, all the milk not used by the family was given to the pigs, none of it was being sold.

From a consideration of the foregoing facts I think the alternative you suggest is entirely disposed of. With the hope that a wrong impression may be corrected may I ask your insertion of this in your next issue.

I am, Sir, yours &c.,
JOHN MURRAY, L.R.C.P.

St. Albans, 1st December, 1884.

Royal College of Surgeons.—The followiug were the questions on Pathology, Therapeutics, and Surgery, submitted to the thirty candidates at the half-yearly examination for the fellowship of the College on the 27th ultimo, when they were required to answer all four questions between 1·30 and 5.30 p.m., viz:—1. What do you understand by the term Phagedæna? Describe its clinical characters and treatment. 2. In the case of an Ulcer on any part of the face of some months' duration, state the chief facts to which you would direct your attention with a view to Diagnosis and Treatmeut. 3. Describe the Injuries to which the Epiphyses of the upper extremity are liable. Give the Diagnosis of each, and the results. 4. With what diseases is Hæmorrhage per Rectum associated? How is each to be recognised?

"*Sanitas.*"—Wilson's "Handbook of Hygiene" is certainly not sufficient alone for the examination, although a most useful book. Roscoe's "Lessons in Elementary Chemistry" and Balfour Stewart's "Lessons in Elementary Physics" contain sufficient chemistry and natural philosophy for the Cambridge Examination. The kinds of applications of the several sciences of which the candidates are expected to show a competent knowledge will be best understood of a perusal of Parkes's "Manual of Practical Hygiene." Candidates are expected to distinguish the several starches, entozoa, &c., &c., under the microscope. The requisite knowledge of this branch of the examination can best be obtained by attending the classes or the laboratory of those teachers who are in the habit of preparing students for sanitary science examinations.

H. C. F.—The lecture will be found at page 169, Vol. I., 1879. It is too valuable to be abstracted, even if our space would admit of it.

COMMUNICATIONS RECEIVED—

Mr. R. J. GODLEE, London; Dr. GEO. JOHNSON, F.R.S., London; Dr. WILLOUGHBY, London; Dr. SHELLY, Hertford; Dr. CLIFFORD ALLBUTT, F.R.S., Leeds; Dr. HERMAN, London; Mr. T. P. TEALE, Leeds; "SANITAS"; Dr. BAERMER, Berlin; THE SECRETARY OF THE PARKES MUSEUM OF HYGIENE, London; Mr. BOOBBYER, Nottingham; THE SECRETARY OF THE HOSPITALS ASSOCIATION, London; THE TOWN CLERK OF HASTINGS; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. VICTOR HORSLEY, London; Mr. W. J. WALSHAM, London; Mr. CLEMENT LUCAS, London; THE EDITOR OF THE BRITISH MEDICAL JOURNAL, London; THE EDITOR OF THE NATIONAL PHILANTHROPIST, London; Mr. A. B. MARSHALL, London; THE HON. SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY OF LONDON; THE DIRECTORS OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; THE REGISTRAR-GENERAL, London; THE ASSISTANT SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; Mr. CHAS. MACKESON, London; THE SECRETARY OF THE MEDICAL SCHOOL, ST. THOMAS'S HOSPITAL, London; OUR LIVERPOOL CORRESPONDENT; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN, London; Dr. ORWIN, London; THE REGISTRAR-GENERAL, Edinburgh; THE EDITORS OF THE MIDLAND MEDICAL MISCELLANY, Leicester; Dr. BRAILEY, London; THE HON. SECRETARY OF THE HUNTERIAN SOCIETY, London; Messrs. JOHN MARSTON & Co., Birmingham; THE REGISTRAR-GENERAL FOR THE PUNJAB, Lahore; Mr. J. H. MORGAN, London; THE SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; Mr. WAGSTAFFE, Sevenoaks; Mr. A. E. DURHAM, London; THE SECRETARY OF THE SANITARY ASSURANCE ASSOCIATION, London; THE EDITOR OF THE BANNER, London; OUR DUBLIN CORRESPONDENT; Mr. T. M. STONE, Wimbledon; Dr. DONKIN, London.

BOOKS RECEIVED—

Jewish Hygiene and Diet, by Carl H. von. Klein, A.M., M.D.—Spinal Deformity in Relation to Obstetrics, by A. H. Freeland Barbour, M.A., B.Sc., M.D., F.R.C.P.E.—Société Médicale des Hospitaux de Paris, Tome XX.—The Encyclopædic Dictionary, Part XI.—The Transactions of the Edinburgh Obstetrical Society, Vol. IX.—Statistical Annuary of the United States of Venezuela.—Notes on Books, by Messrs. Longman & Co.—Ueber Sklerose des Rückenmarkes, von Julius Althaus—Report of the Trial of Adolf Frankenberg—Hiuts for Invalids and Travellers, by T. E. Maclean, M.B., B.S. Lond.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin — Philadelphia Medical News — New York Medical Journal—New York Medical Record—Société Médicale —Archives de Neurologie—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Medical—The Therapeutic Gazette—The Analyst—The Students' Journal and Hospital Gazette—The Veterinarian—The Archives of Pediatrics — The Monthly Homœopathic Review—Archives Générales de Médecine—Sciences Médicales—Edinburgh Medical Journal — The Birmingham Medical Review — Canada and Surgical Journal—The Australian Medical Journal—The Glasgow Medical Journal—Cambridge Wells Advertiser—Night and Day—Revue Mensuelle de Laryngologie D'Otologie—The Detroit Lancet—Popular Science News—The Educational Times—The Port Elizabeth Telegraph—North Western Lancet.

APPOINTMENTS FOR THE WEEK.

Friday, December 5 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

West London Medico-Chirurgical Society, 8 p.m.—Mr. Percy Dunn, Pathological Specimens; Mr. Keetley, Clinical Cases. Papers.—Mr. Spencer Watson, "A Case of Sympathetic Ophthalmia;" Mr. R. F. Benham, "The Uses of Sulphide of Calcium;" Dr. Thudichum, "On Inflammation, Abscess, and new growths of the Ethmoid Cells."

Saturday, December 6.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, December 8.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

The Parkes Museum, 74A, Margaret Street, Regent Street, 4.30 p.m.—Mr. Ernest Hart, on "National Precautions Against Cholera—Regulation of Travelling; Ships; Importation of Clothes, Rags, etc.; Uselessness of Quarantine."

Tuesday, December 9.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic, 3 p.m.; St. Mark's Hospital, 9 a.m.; St. Thomas's (ophthalmic operations), 4 p.m.

Anthropological Institute, 3, Hanover Square, W., 8 p.m.—By Sir John Lubbock, Bart, F.R.S., "Marriage Customs and Relationships among the Australians Aborigines;" by Mr. A. W. Howitt, "The Jeraeil, or Initiation Ceremonies of the Kurnai Tribe."

Royal Medical and Chirurgical Society.—Dr. Percy Kidd, on "The Distribution of the 'Tubercle Bacilli' in the Lesions of Phthisis;" Mr. W. B. Dalby, on "Cases in which Perforation of the Mastoid Cells is Necessary." Microscopical specimens, illustrating Dr. Kidd's paper, will be on view at 8 p.m.

Wednesday, December 10.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, 8 p.m.—Sir William R. E. Smart, K.C.B., M.D., "On Old London—its Insanitary Conditions and its Epidemic Diseases."

Hunterian Society, 7.30 p.m.—Mr. T. Mark Hovell will exhibit "An Appliance for removing False Membrane from the Trachea;" Dr. Alfred Carpenter, "Alcoholic Drinks as Medicine." Council at 8 p.m.

The Parkes Museum, 74A, Margaret Street, Regent Street, 4.30 p.m.—Mr. Shirley Murphy, on "Local Precautions Against Cholera—Duty of Sanitary Authorities in Town and Country, and of the Householder." 8 p.m.—Dr. William B. Beatson, of Bath, on "Sanitation at a Health Resort."

Thursday, December 11.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Ophthalmological Society of the United Kingdom, 8.30 p.m.—H. Eales, "Severe Retinitis Albuminurica affecting one Eye alone;" W. A. Brailey, "Hyphæma secondary to some deep-seated Intra-ocular change." Communications, &c.: E. Nettleship, "On the use of Cocain in Ophthalmic Practice;" A. H. Benson (1) "Further Observations regarding the value of Hydrochlorate of Cocain as a local Anæsthetic," (2) "Report of the Committee on the Influence of the Vapour of Bisulphide of Carbon and of Chloride of Sulphur on the Vision;" W. A. Brailey, "On the Condition of the Ciliary Nerves in Certain Diseases of the Eye;" J. Couper, "An Improved Ophthalmoscope;" Priestley Smith, "Ophthalmic Models used in Teaching." Living Specimens at 8 p.m.

Friday, December 12.

Clinical Society of London.—Adjourned Debate on Mr. Morrant Baker's Paper, "On Charcot's Joint Disease." Professor Charcot's specimens and others will be again on view.

The Parkes Museum, 74A, Margaret Street, Regent Street, 4.30 p.m.—Dr. Norman Chevers, C.I.E., on "Personal Precautions Against Cholera to be taken by each Individual; Panic; Food and Drink; Clothing."

University of London, Burlington Gardens, 5 p.m.—Mr. Victor Horsley's First Brown Lecture, subject—The Thyroid Gland, its relation to the Pathology of Myxœdema and Cretinism to the Surgical Treatment of Goitre, and to the general Nutrition of the Body.

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SUMMARY OF CONTENTS, NOVEMBER 29.

MEDICAL TIMES

AND GAZETTE.

No. 1798. LONDON, SATURDAY, DECEMBER 13, 1884.

Contents.

CLINICAL LECTURE,

ON SCROFULOUS NECK.

By T. CLIFFORD ALLBUTT, M.A., M.D. Cantab., F.R.S., F.R.C.P.

Consulting Physician to the Leeds General Infirmary.[1]

GENTLEMEN,—The malady which will occupy our attention to-day has arrested the attention of physicians from the earliest times of which we have any definite record to the present moment. So far as we may judge from the evidence before us, no age and no race of men in our own Continent have been beyond the reach of scrofula; all civilised men have striven with it, all kinds of remedies, rational or fantastic, have been set against it; kings and queens have willed the cure of princes and philosophers, as well as of humbler folk; images have been carried before patients in vain, lustral waters sprinkled in vain, and we doctors have to take up a task which is beyond the touch of kings or the conjurations of priests.

That the ugly finger of scrofula should be laid chiefly upon children, young men and maidens, has this pathos in it, that it disfigures them at the springtime of life—at that time when hope and promise make all life precious and all death seem the loss of untold treasure; when beauty and gaiety have their fleeting day, and for the loss of them the world is poorer.

Eagerly, then, do we desire to disperse this evil burden and to restore health and symmetry to the sufferers.

It is well known to most of you that scrofulous neck for the ancients made up the whole of "scrofula," a a name derived from the scrofous or sow-like fulness which it imparts to the neck and jaw of the patient.[2] The Greek word χοίρας, in like manner, signifies both the animal and the disease. Dr. Philemon Holland, in his translation of Pliny in the early 17th century, says that "A cataplasma of leaves and hog's grease incorporate together doth resolve the scrophules or swelling kernels called the 'King's evil'"—a medication derived from the doctrine of signatures, from the notion, that is, that natural objects often bear superficial similarities stamped thereon by an ingenious Providence as a means of indicating their therapeutical affinities. In later times, however, we have given a larger meaning to the word scrofula. We no longer mean by it solely the neck of scrofula but we include under that term a series—or supposed series—of morbid phenomena significant of a definite diathesis or supposed diathesis. It has been widely asserted, that

[1] This lecture is one of an extra academical course given to undergraduates and graduates alike by the Consulting Staff of the Leeds Infirmary.

[2] Littré says the term comes from the fact that swine are subject to a like disease.

scrofulous neck, as one of these phenomena, cannot possibly occur out of the diathesis; that, say, a gouty or dartrous person is incapable of scrofulous neck, and that scrofulous neck can be developed only in persons of a certain specific quality of body called scrofulous, and as a member of a series called "scrofula." Other members of the series are the impetiginous eczema of children, recurrent pituitous catarrhs on the mucous surfaces at all ages, certain glandular inflammations in youth and adolescence, certain diseases of bone likewise, and finally, certain quaternary or visceral degradations of a sub-inflammatory kind, all of which affections are marked by the issue of a more or less corrupt kind of pus, and a defect of healing impulse which Virchow has called a vulnerability of tissue. A certain primary conformation of body is also said to be the heritage of scrofulous persons; that in childhood they have a certain grossness of parts which vainly flatters the maternal eye; and in age, likewise, the same bigness without quality, of which the great lexicographer is the familiar instance.

It appears to me that these diatheses cannot be classified like dogs and cats, but that they rather represent aberrations from the normal, which in their minor obliquities can scarcely be regarded as beyond the latitude of sanity. The wider the obliquity, however, the more several become the diatheses both from each other and from the path of health, and their qualities and movements more proper for definition and prediction. The scrofulous diathesis is well marked when a patient in babyhood has scald head with associated cervical buboes; in youth, scrofulous neck; in adolescence, a white knee; and in adult life, catarrhal phthisis. If, however, we have a broken series, or still more if one of these phenomena occur alone in a life or even in a generation, the patient perhaps having no definite sign in scrofulous feature or proportion—and such cases often meet us in practice—then how are we always to agree with our learned colleagues who will not admit that scrofula can occur except in the originally scrofulous.

The argument would thus take this unprofitable form: Certain diseases can only occur in scrofulous persons, and because these diseases occur in them, therefore they are scrofulous. For my part I cannot regard scrofula as an *alterum quid*—a new quality of the body, as we regard syphilis—it seems, as I have said already, to be rather a deflection which may be induced by influences wholly external, and under these influences may manifest itself in an inferior healing power. That on the other hand, in the large majority of cases, a "vulnerability of tissue" is an inherited defect, and that an especial vulnerability of lymphatic glands runs in families is not to be denied, for such defects betray the original bad habit even under circumstances the most favourable. To deal then with scrofulous neck alone, as our subject for to-day, I believe that this disease may be produced in persons originally of healthy habit and of healthy stock if their external circumstances, or some of them, be sufficiently adverse, but that a disposition to such disease is more commonly inherited, and the greater the inborn frailty, the more readily will adverse circumstances produce it. In some persons, doubtless, the inborn frailty is such that the ordinary pressures and variations of normal conditions do not fail to initiate mischief in them.

Scrofulous neck is of course but one part of the glandular disease which may and often does invade the scrofulous subject. It is the most striking part, because in the neck and under the jaw it is evident, and destructive of beauty and symmetry. It is also an early site for such outbreaks, appearing usually there before it may appear in the axilla or in the groin. Until later times, when pathological dissections became more common, the frequency of like caseation in thoracic or mediastinal glands was scarcely realised, and still at the present day these inner changes are too obscure for popular discernment, and not uncommonly escape even that of the physician himself. It is a familiar doctrine that in all these cases the enlarged glands are buboes, by which I mean that they are secondary to irritation and absorption on and from their associated mucous surfaces.

Confining our attention, then, to scrofulous neck, we have learnt that chronic inflammatory enlargement of the glands of the neck is secondary to irritations in the associated mucous surfaces, and absorptions from them; the chief of these being the mouth and throat, and the next in order the nasal, aural and ocular surfaces. Irritations indeed upon the skin of the face and head are not without influence in the same direction, so that although the result be less common, yet glandular enlargements of the neck do occasionally owe their initiation to eczematous or other cutaneous disorders. We may feel tolerably sure that although in a given case we may be utterly unable to discover a peripheral cause for the enlargement of cervical glands yet they do not, under the influence of this diathesis at any rate, enlarge "of themselves," but only in obedience to some peripheral irritation which may belong wholly to the part. When the scrofulous diathesis is well marked the glandular expansion may be so enormously out of proportion to the initiating peripheral cause that this latter, if fugitive, may never be measured nor ever perceived. Now these considerations, although taught by every thoughtful clinician do not sink into the minds nor exercise the observation of the medical public so thoroughly as they ought to do. No competent observer would overlook such an obvious peripheral cause, for instance, as eczema capitis, scarlatinal sore throat, flux from the external meatus, and so forth; but I think the daily and hourly activity of the pharyngeal mucous membrane is not vividly realised in this matter. The mucous lining of the pharynx is a kind of screening machine which catches upon its moist surface and intercepts all that dust, organic and inorganic, which is drawn in with the air. Hence we know that these surfaces are constantly seeded with particles, many of them germinal, and not a few of them poisonous. Happily the membrane in its healthy state throws them off and allows no settlement to be made nor any germination to take place. All particles are promptly arrested and re-conveyed beyond the portals of the mouth, or consigned harmless to the stomach, and no local irritation arises on the surface nor any sympathetic change in the glands. But let us suppose for a moment that this mucous covering is something less than healthy. We know that in scrofulous persons the mucous membranes are not very sound nor resisting; the mucus they secrete is not very stable but is liable to slip down into chemically acrid principles, and into degenerative cell changes. Herein the fermenting or irritating particles find a food or a soil in which they work after their kind, and thus, even unperceived, the fluids of the throat become, when absorbed, the vehicle of poison to the lymphatic glands adjoining. It is, perhaps, not necessary that the mucous surface be absolutely broken. Certain variations of moisture or density may suffice to favour absorption, even through an unbroken surface. Let there be a trifling delay or languor of the epithelial function, and particles mechanically, chemically or vitally irritant will imbed themselves in the soft and absorbent vesture of the pharynx, and be themselves carried within or generate poisons upon the surface which are drawn inward. Again, by some vital mechanics a chill to the skin may disturb the nutrition of the membrane; if this occur in aseptic air, at sea, for instance, even the scrofulous subject may be quit for a cynanche; if it

occur in foul air, but in a vigorous person, the mucous membrane may overpower the evil as strong turnips outgrow the fly. Again, in the glands themselves a temporary irritation may subside if the conditions of life be favourable, or, on the other hand, may progress under adverse circumstances, or in vulnerable constitutions. But the surface may be broken, broken but lightly and transiently, so lightly and transiently that he who seeks for the breach may fail to find it, yet a breach deep enough and enduring enough to set up that prolification in the glands behind it, which, in the scrofulous person, has no tendency to heal. Given the "vulnerability" it will suffice to start the process, it will suffice to admit the match to the heap, and the fire will smoulder on thereafter of its own activity. If we think then of the rain of organic particles falling incessantly by way of nose and mouth upon the lining of the pharynx in those of us who live under the purest physical conditions, the wonder will be not that scrofulous neck is generated but that so many of us escape it. Given but a broken surface in the healthiest person and a sufficiently prolonged exposure to organic particles, and it seems certain that your scrofulous neck must at some point arise unless an originally high vitality be constantly favoured by healthful habits and surroundings otherwise healthful.

As among the fortunate of mankind there must always be multitudes whose vitality and general resisting power are, on the other hand, constantly depressed, and who are at the same time breathing constantly an air laden heavily with impurities, we do not wonder that scrofulous neck has been a common and mischievous result, nor that a pure air and wholesome dwelling-place have been regarded as chief means of cure. One source of impurity the scrofulous rich and poor enjoy in common—that is, the drain and the cesspool. Herein the rich have no advantage over the poor, indeed, herein, the richer classes fare perhaps worse than the poor, who often lack those gifts of civilisation, and are vulgarly content to cast forth their ordure to the sun and the winds. If I may make a guess on a matter of which I can know nothing definitely, I would guess that the emanations from foul drains are the unseen carriers of scrofulous neck to the greater part of its victims in the richer classes. It seems as if it must be so. No influence is so potent to lower general vitality, and no poison finds so readily its home in the pharynx. Drain throat has become a common term in the last few years, and every day we recognise such throats by their appearance alone. In these cases the superficial mischief is ample and patent; but in how many more is it, although slighter and milder, yet strong enough and baneful enough to set up unhealthy buboes in persons thereto disposed! The question thus, in my view, is reduced to one of the degree, duration and kind of local iritation acting upon subjects vulnerable in all degrees. When heredity is dominant local causation may take, no doubt, a lower place; where heredity is less, local causation is more, and where it is absent local causation rules alone. Next to that of the mouth, gums and throat the mucous lining of the ear seems to be most ready to propagate secondary mischief in the cervical glands. It seems probable that in all cases the irritation is first propagated from the mucous surface to the minute nodules of lymphatic tissue which lie immediately under the mucous membranes, and that from these the evil is forwarded to intermediate lymph centres, and thus to the principal lymph glands in the neck. These which in the normal state are barely palpable, gradually enlarge and succeed each other in chains, not larger at first than shot, but some of them ultimately increasing to the size of walnuts or even of a small orange. At first the glands, on section, show no cascation, but a pale transparent and uniform section. Neither at this stage, nor afterwards, is there any symmetry of disease between the two sides of the neck. In this stage the glands may return to the natural state, the hyperplastic material being re-absorbed.

If the malady progresses, however, caseation begins at multiple centres within each gland, which centres become fused until the whole gland becomes a cheesy mass. In the first stage it would be difficult, and without collateral evidence perhaps impossible, to distinguish scrofulous glands from those of lymph-adenoma. But as the infection becomes more distinctly inflammatory the diagnosis clears itself even to the explorer's finger. These bodies are no longer, as in lymph-adenoma, isolated, freely moveable, uniform and painless, but soon they form adhesions to the surrounding tissues and to each other; they become tender on pressure and slight nodulation of their surfaces is to be noticed. The same contrast helps us to distinguish these scrofulous glands from enlargements far more likely to embarrass our diagnosis, namely, from the albuminoid glands of rickets. The aspect of the scrofulous child, moreover, is rarely to be mistaken for that of the rickety, nor has it the peculiar chlorotic skin of the latter.

Once more: we have hitherto considered the mucous membrane as peripheral to the lymphatic system; let us now call to mind the like effect which would be produced by some one degenerate gland as peripheral to the rest. I have proved, or had proved for me by the revelations of the surgeon's scalpel that a forgotten surface irritation may have inflamed a few glands and have passed away; the glands themselves likewise passing away so far as the eye and hand could tell, but not altogether. One small, and perhaps deep-seated, enlargement may remain—a lump not larger than a pea—this may slowly caseate, and in the course of months, or possibly of years, become the focus of spreading poison to others; new activities then come on, successive glands in their turn enlarge and caseate, and scrofulous neck becomes established as a secondary event long after the primary affection of the mucous surface has disappeared and been forgotten. Such a state of things would be what lawyers call "consequential damage." Now here no purification of the mouth, throat or ear would avail to remove the trouble, for it comes from a source which is beyond our reach and even beyond our ken. Such cases of secondary bubonic development are, I believe, very common, and the knowledge of this possible sequence should put us on our guard against any careless dealing even with the smallest and most isolated bubo. In a scrofulous person it may ultimately be the source of most troublesome mischief.

Now, gentlemen, with your permission we will pursue the matter a step further.

A short time ago I referred to certain distinctions between the enlarged cervical glands of scrofula, lymph-adenoma, and of rickets, and some points of distinction then severally noted may be summed up in scrofula as features of chronic inflammation. Not only do they inflame with a slow destructive process within, but a capsular inflammation extends from gland to gland, matting them together; this in its turn propagates inflammation to the cellular tissues, and the skin; glands, subcutaneous tissues and cutaneous becoming involved in a general process of low inflammation. We have then chronic caseating adenitis, chronic suppurative cellulitis, and chronic suppurative dermatitis. These inflammations being, as I say, only partially adhesive in nature and largely necrobiotic, lead not only to the softening of the glands themselves but to the formation of cellular abscesses, more or less sinuous in distribution, between and around the glandular necrosis. As the glands soften and burst, then a

system of channels and pockets, of cells and passages, is formed, some pockets lying deep where glands lay under a muscle, such as the sterno-cleido-mastoid, others lying more superficially. From the lower to the upper source channels of communication may be established, or some of the deeper glands may be imprisoned in surrounding adhesions, and their products of degeneration have no outlet. Some glands are partially hyperplastic, with but nodules of caseation; others have softened in part, are caseated in part, and are only hyperplastic in part. Others have wholly softened and are represented by pockets of corrupt pus. As the skin is involved and becomes reddened and tender, the outward determination of the morbid products is hastened, the skin gives way, and cellular or glandular abscesses are emptied gradually as the establishment and the drainage of sinuses may permit. Nature thus works some kind of cure, sometimes a perfect cure, sometimes a very partial one, as from deeper glands or cellular abscesses no free issue to the light may ever be established. Some parts of the mass, and these probably the remoter and therefore the more dangerous, may remain unemptied, and abide in their breaches as means of offence in time to come. Nature's cure is thus seen to be of a haphazard and unsatisfactory kind. Still, a cure does commonly take place, after years of disease, at the cost of permanent scarring of the neck, and probably at a far greater cost than this. Nec causas solum sed exitus etiam rerum cognoscere oportet. We can not flatter ourselves that the patient is to be quit for his local embarrassment and his scars; his general health suffers, and soon is established the morbid see-saw, feeble tissue vitality admitting the incursions of local poison, and in its turn the local workings farther depressing the systemic health, each thus intensifying the other until the strands of life itself become strained. Septic matters are absorbed into the blood, recurrent and variable hectics dissipate the appetite, flesh and strength, so that the patient finds himself at the end of it all, if not unsound in his internal organs, at any rate a far worse man than he would have been had this trial been spared him. But even if it be but thus with him, he has still reason for congratulation. But too often two or three years of "ecrouelles" mean the implantation of the seeds of phthisis, of which disease he may die early. It must not be supposed that death by phthisis will usually spring up in him by virtue of inheritance alone. It supervenes at one time as the result of that general asthenia, that diminution of vital and nutritive values which long suppurations leave behind them, at another time as a consequence of the inoculation of the system with tubercular virus. Our knowledge of the tubercle bacillus is as yet too young to tell us whether scrofulous neck always depends upon the introduction of the tubercle bacillus by way of the mucous membrane of the throat or otherwise — too young, indeed, even to tell us whether the tubercle bacillus is an essential part of scrofulous neck at all. We know that it may be found there, and that scrofulous neck has of late years been regarded as morphologically tubercle, so that we are safe at least on the broad postulate that inoculation from sources of corrupt or caseating pus does very commonly set up a more or less generalised tuberculosis.

Our scrofulous patient, therefore, runs three risks in the continuance of his local malady over and above his faulty inheritance, namely, first, a tedious local disease, followed by a peculiarly unwelcome disfigurement; secondly, the fear of deterioration of his general health thereby, such that his best years of adolescence are spoiled, and his entrance into manhood thwarted and weakened; thirdly, an inoculation of the system with elements which favour the development of more general tuberculosis. Now, how are we to avoid these evils? In the first place, whenever we have reason to suspect the scrofulous diathesis in young persons, we should secure, as far as possible, under these circumstances, the favour of pure and invigorating air, of sunlight, and of good food. We should most jealously watch the sanitary conditions of the dwelling or schoolhouse, and prevent the possibility of the contact of infected air, water or milk. We should especially watch the lining of the throat, mouth, ears and so forth, and stop any tendency to unwholesomeness of the surfaces or secretions of these parts. If children inheriting such tendencies can be placed at the seaside, or in the fresh air of such health resorts as Harrogate, we shall help the growing body to rise above its original defects, and to mould itself on stronger lines. If in some early degree enlargement of the sub-maxillary and cervical glands have already taken place these precautions will be the more needful. If we find the glands smooth, and free from all nodulations, isolated and non-adhesive, we may almost promise a cure, if the constitution be fairly robust, by a residence at Margate together with other due cares. Such glands on the entire removal of baneful outer in uences, and the promotion of the general health will probably resolve. The dietary is to be dictated on principles already sufficiently familiar to you all, and cod liver oil will probably form a part of it. Medicines which favour the growth of red blood and stimulate appetite and digestion will be added. Of specifics there are few. I am satisfied, however, that the cautious use of mercury, say of the solution of the bichloride with tincture of iron, is desirable, unless the inborn frailty be very marked; and iodides with iron are likewise valuable.

External applications should be cautiously used; and in my own practice I have relied but little upon them. At any rate, it is certain that harm may be done by them if not most cautiously and judiciously managed. A well diluted ointment of iodide of mercury in proper cases is the most efficient means of this class.

So long as the glands remain free from adhesions and smooth on the surface, such remedies as the above may suffice to dissipate the malady; the removal to the sea-side being by very far the most potent of them.

So soon, however, as the glands become adherent, either to each other or to the surrounding tissues, so soon as they present small nodulations on their surfaces, caseation has begun, softening will succeed, and however great may be the benefits to be bestowed on the general health by climatic and medicinal remedies, yet we canuot at all rely upon the removal of the local mischief by these.

I say we cannot rely upon the removal of it. Not, infrequently, indeed, scrofulous necks of some inveteracy and severity have been and are cured by residence at Margate. But such means are not in the power of all people, and if they were, we still stand the risk of ultimate ill success, or the risk of shaking the constitution still farther by a continuance of the disease, and we give greater opportunities for the inoculation of the system with active or dormant tubercle.

These considerations, gentlemen, pressed so strongly upon my mind some years ago, that I found for myself a shorter way out of the difficulty, a way which puts an immediate term to the disease, and which abridges what I may call the septic or tubercular opportunities of the malady. These reasonings and some of their results were published by Mr. Teale and myself at the International Medical Congress in 1881. I called in the surgeon to my aid on the modern principle of *ubi pus ibi exitus*. Wherever septic material is contained in the system we rest not till it be expelled, and its burrows laid open and disinfected. The knife has been used hitherto freely enough in scrofulous neck, on the principle laid down by Sir James Paget, namely,

to wait till the skin warms, reddens and fluctuates: then to make a clean incision, permit simple evacuation of the present matter, but not to squeeze nor even press the surrounding parts. We are to wait until a new area of softening be obvious, then repeat the process, and so on. Now, gentleman, this is palliative surgery, but it is not curative surgery. It scarcely alleviates the cause of the disease, indeed, it does little more than substitute a fine and clean for a foul cicatrix. My proposal is a curative surgery, and it is now founded upon a wide basis of successful instances. It so happened that some of my earlier cases were referred by their friends to Mr. Teale, and consequently he and I so thoroughly discussed the matter together, that we found it convenient to work together in like cases, though I need scarcely say that others of my colleagues would have led me forward with a like ability: so it was, however, that we fell together on the matter and continued to co-operate.[3]

My purpose, and the purpose of the surgeon, whoever he may be who holds my views, is radically to extirpate every caseous gland or portion of gland, and so quench promptly the smouldering fire. At first, we naturally had for our patients only those sufferers whose endurance was exhausted, and who willingly accepted any way, however doubtful, out of their sufferings. Gaining courage, however, by our success even in the worst cases, we are advising the radical operation more and more, until, I may now mention it as one of our best means from the moment that caseation, however limited, is manifest. Recent instances lead me to hope that if such a practice become universal, scrofulous neck and all the hectic, asthenia, emaciation and phthisical risks which belong to it will become matters of history.

It is needless to say that the surgical procedure does not do away with the value of sea climates, good food and tonic medications, but it does put an end to those constitutional infections which make such means more necessary. Where in-born frailty is strongly marked, such means are still to be added, and in a few very vulnerable patients the surgeon may be compelled to call in the aid of Margate in support of his undertaking.[4] But such cases are the minority; many persons affected with cervical scrofula are not originally of bad physique, and these persons whom we meet daily, can be cured by the knife alone, always directly and sometimes rapidly. When after years of smouldering inflammation and caseation group after group of glands have become involved, it would be unwise perhaps, even were it possible, to enucleate the whole mass either in one sitting or in instantly successive sittings. It is not a part of my commission to-day, gentlemen, to describe to you the operative part of the radical cure; this chapter will be enlarged upon by Mr. Teale, on the 17th of December. But in general terms the aim which the surgeon must set before himself is to open all subcutaneous abscesses, to trace them to softening glands, to enucleate these, and to lay open all sinuses which lead to deep-lying glands, often concealed behind muscles or fasciæ, and to so completely eliminate all decaying tissue, and so cleanse the bed of disease that healing may be rapid and complete. In a severe case several operations, even six or eight, may be needed to secure a stable result; but it is surprising to see how quickly the general health rebounds after the two or three first sittings. Finally, we claim not only to cure but to beautify the patient, for if conveniently and neatly managed, the scars of the surgeon are so clean and fine as in a year or two to disappear altogether. To secure this desirable end, it is important, even at the risk of a repeated operation, to avoid the prolonged use of a drainage tube, for after such a procedure a denser and rougher scar remains behind.

Gentlemen, I thank you sincerely for your kind consideration.

[3] I do not for a moment pretend that eradication of scrofulous mischief in the neck by the knife and scoop is an original idea of my own. It occurred to me independently, as it doubtless occurred to many other physicians; I believe, however, that the idea has never been worked out so completely, nor in so many cases, as by Mr. Teale. Indeed, on hastily turning up the subject with the aid of "Neale's Digest," and "Virchow's Jahresbericht," I am surprised to find how little has been done by others on the same lines.

[4] I believe that by systematic enucleation and evacuation on the radical system, the stay of all scrofulous patients at Margate could be abridged and the benefits of it enlarged.

CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

By J. BURNEY YEO, M.D., F.R.C.P.,
Physician to the Hospital.

Lecture V.

THE TREATMENT OF PHTHISIS.

(Continued from page 774.)

Prophylaxis—(continued).

The proneness to become phthisical which scrofulous persons display, renders it incumbent to watch with more than ordinary care all such as inherit a tendency to the manifestations of scrofula and to disorders of the lymphatic system; such as chronic enlargement and suppuration of superficial glands, chronic joint affections, chronic and recurrent cutaneous eruptions, chronic ophthalmia, and the well known series of phenomena generally regarded as scrofulous.

The extreme value of sea air and sea baths in combating the tendency to such affections has been established beyond doubt by long experience, and in all cases of delicate children and young people presenting the signs of the scrofulous diathesis, prolonged residence at the seaside and the regular use of sea baths, cold in the summer, and, if necessary, warmed in the winter, are of the greatest practical value. There are, however, some scrofulous children with feeble digestions who become ill at the seaside and suffer there from gastro-hepatic troubles, headache, and lassitude; and others who from nervousness can never be induced to bathe in the sea. The latter can of course be bathed in sea water at home, and for the former the treatment adopted at Kreuznach and other similar strong salt springs offers a valuable alternative. The method of adding the strong *mutter-lye* to the baths at these spas enables the physician thus to graduate their strength to individual needs.

It is important, in the case of individuals who inherit a predisposition to pulmonary consumption, to be watchful for any signs of defective nutrition which may render them more readily susceptible to atmospheric vicissitudes or to other injurious influences. It is on this account that so much stress has been laid by various authorities on the necessity of combating vigorously any tendency to progressive emaciation, although it may be unaccompanied by any other symptoms, when it is observed in those who have a phthisical tendency.

And no doubt the occurrence of loss of flesh is often one of the first evidences of the impending danger. But it would be incorrect to conclude on that account that all the subjects of progressive emaciation are on their way to become tuberculous. The numerous instances of the occurrence and long continuance of the most extreme and alarming emaciation in connection with hysterical anorexia and neurasthenia, which, under a suitable moral and physical *régime* completely

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recover their former health and corpulence, absolutely negative any assumption that defective nutrition and emaciation can be regarded as of themselves causes of tuberculous disease.

The emaciation which is observed to be so frequently the precursor of pulmonary phthisis is, probably in most instances, but the first symptom of the actual presence of the disease, while, no doubt, in others it is simply the indication of an inherited vice of constitution which, if unremoved, will soon become associated with other manifestations of still more serious import. A vigilant prophylaxis then requires us to be on our guard lest we allow a tendency to progressive emaciation in the young and delicate to proceed unnoticed. The period of rapid growth and the approach of puberty must be especially protected against this tendency.

In such cases we should exercise a careful supervision over the diet, and see that it is sufficient in all respects and that it includes an adequate proportion of fat and flesh forming food. The introduction into the day's dietary of extra food in the shape of two or three glasses of new milk, of a certain quantity of cream or butter, of malt extract, or, in some cases, a glass or two of sound beer or stout ; and in scrofulous cases of a dessertspoonful or two of cod's liver oil twice a day ; these and various other dietetic expedients must be attempted and persevered in. A good deal of difficulty is often encountered in such cases, especially in young women, in overcoming a certain distaste for food, and in these and all such cases it is necessary to look to the digestive organs, and by the judicious use of bitter tonics, as well as of aperients, to overcome the frequently co-existing constipations, to improve the tone of the digestive functions and excite appetite.

Passive exercise in the open air is beneficial to such persons, such as horse, or carriage, or boat exercise, but much walking exercise is to be avoided as tending to further exhaust the ill-nourished muscles, but a well devised course of gymnastic exercises may be useful.

It is scarcely needful to insist that all such persons as we have been referring to should be protected in every way from the causes of catarrhal, congestive, or inflammatory attacks of all kinds ; from indiscreet exposure to changeable or inclement weather ; from the dangers of over excitement, and the draughts and rapid changes of temperature to which they may be exposed in social *réunions*, in places of amusement, in churches, and in all buildings where people assemble in numbers.

I have already alluded to the importance of suitable gymnastic exercises for the purpose of increasing the capacity of the thorax, generally small and narrow in such persons, of strengthening the respiratory muscles and those of the upper limbs, and so of promoting lung development and lung ventilation. These are as important in the adolescent as in the child, and at this age riding, swimming, boating offer additional inducements for systematic exercise in the open air ; but it is above all things essential that such exercise should be duly regulated and moderated, and all undue excitement of the circulation forbidden.

A few weeks during summer, or a longer period if any troublesome catarrhal attacks have occurred, spent in some mountain valley from 4,000 to 6,000 feet above the sea level is valuable, not only for its general bracing effect, but for the pulmonary gymnastics which a residence in the rarefied air of these regions necessitates, and the more complete pulmonary ventilation thereby secured.

The application of the pneumatic treatment, *i.e.*, of alterations of atmospheric pressure by means of pneumatic apparatus, to the treatment of the "phthisical habit," and to the modification thereby of the faulty form of the thorax so generally observed in those predisposed to phthisis is thus commended by Oertel in his "Respiratory Therapeutics" :—

"The build of the thorax and the expansion of the lungs correspond accurately with one another, and are mutually dependent. It is by the form, size, mobility, and expansibility of the thorax that the space is determined within the limits of which the expansion of the lungs is accomplished and the deepest inspiration can be attained. Any contraction of the space within the thorax limits in a corresponding degree the expansion of the lungs and the respiratory capacity, and lays the foundation for the development of pathological processes.

"Where the phthisical habit exists we must do all in our power to promote the re-modelling and widening of the thoracic space, as the form of the thorax is directly connected with the gradually developing respiratory insufficiency. In the long, narrow, shallow thorax, the sternal angle of which projects, while the epigastric angle becomes more pointed and the supra- and infra-clavicular fossæ are depressed, the lungs, especially at their apices, will not expand in a manner corresponding to their normal function. The respiration becomes weak and superficial, the inspiratory as well as the expiratory pressure falls below the normal, and disproportinate shortness of breath follows any increased physical exertion on the part of the patient.

"The application of altered atmospheric air pressure by the pneumatic apparatus is, in the first place, indicated in order to overcome the contraction of the thorax which has been produced by pathological conditions and to expand it as much as possible. As by inspirations of compressed air the intrapulmonary pressure of the pulmonary air is so far increased that it preponderates to a certain degree over the normal atmospheric pressure on the thorax, not only will an expansion of the lung tissue be thereby effected, but also—and that all the more the younger the individual we have to deal with—a widening of the thorax itself by elevation of the ribs and its expansible parts. The thoracic muscles are strengthened ; the lung capacity, as shown by the pneumatometer, is often considerably increased ; dyspnœa is removed ; with increased respiratory surface and functional activity of the lungs sanguification is improved ; there is increased appetite, a fresher appearance and subjective well-being, and under all circumstances, *even if the outbreak of phthisis itself cannot in every case be arrested, a power of resistance to predisposing diseases is created in the lungs.*

"Lastly, in the phthisical habit, not only the mechanical action of altered air pressure on the respiration, but also its mechanical effect on the circulation, gives it a definite value. By expiration into rarefied air, as in the rarer air of higher altitudes, the pulmonary blood channel is widened, the anæmic condition of the lung tissue removed, the nutrition stimulated, the change of matter accelerated, and thus the danger is averted that, owing to the anæmic condition of the lung tissue, such as often occurs in the phthisical habit, the remaining products of inflammatory processes, infiltrations, and exudations may result in thickening of the tissue and caseous degeneration.

"With the steady application of positive and negative pressure to the pulmonary surface, it soon becomes possible to demonstrate objectively the favourable effect of pneumatic treatment, and to express numerically the results obtained. Thus in faulty and insufficient apical respiration co-existing with hereditary predisposition, weakly constitution, and paralytic thorax the excursions of the chest, and especially of the upper parts of it, become visibly more extensive, the previously flat thorax becomes arched, its drawn and cramped position freer, and the apices of the lungs

which drew in air only sparingly, take in a fuller quantity with each inspiration (Geigel). But it is of special importance that the patient not only carries out this respiration, so different to what he has been accustomed to, for the first few months that he is subjected to the influence of altered pressure, but that he should also learn to breathe fully and deeply, and so to ventilate the apices of the lungs freely, by which means also the probability of dangerous bronchial irritations, excited by retained dust and secretions, is more and more reduced. We therefore observe as proximate and permanent results of the treatment, enlargement of the circumference of the chest, considerable, even double, elevation of the pneumatometric valves, increase of the vital capacity, improved nutrition, and a very remarkable increase of body weight. With these objective phenomena will be gradually combined the subjective ones of a feeling of well-being and increase of bodily strength."—(Pp. 556–558.)

And of treatment in the *Pneumatic Chamber* he speaks as follows :—

"The long, narrow, shallow thorax, more or less flattened in the infraclavicular region, with impaired mobility and expansibility in its upper part, under the mechanical influence of compressed air and improved nutrition of the inspiratory muscles acquires increased inspiratory expansion ; the feebly expanded, anæmic, and vulnerable lungs becomes more or less dilated ; the inspirations, previously superficial and frequent, become deeper and fewer ; the inspiratory and expiratory pressure are raised, and the vital capacity thereby increased, while, what is of special importance, the anæmic lung tissue itself is better nourished by enlargement of its blood channel and gains in elasticity and power of resistance.

"The general nutrition and sanguification, usually defective, are ameliorated, and the development of the individual is aided by improved muscular tone and vigour.

"Physical examination of the chest and the rise of the spirometric and pneumatometric figures, as well as the increase of body weight, are evidence of progressive improvement from this treatment."—(P. 696.)

It is desirable also that such persons should be guided in the selecting of an occupation or profession by a due consideration of the principles we have already referred to. Wherever it is possible an occupation should be chosen which allows of free exercise in good air without the necessity of undue exposure to the vicissitudes of weather or climate ; and all occupations should be avoided which entail confinement in close, ill-ventilated apartments or workshops, as well as those which necessitate cramped attitudes and positions which interfere with proper expansion of the chest. So also all employments which involve exposure to irritating vapours or dusts or other influences, such as sudden and great changes of temperature, which may excite or maintain catarrhal conditions of the air-passages are to be avoided.

There appears to be some difference of opinion amongst physicians who have investigated this subject as to the influence on the phthisically predisposed of professions which call for much exercise of the voice. Some consider them injurious[4] while others think them preservative.[5]

Exercise of the voice in moderation is probably advantageous as promoting pulmonary expansion and ventilation ; but it is also easy to understand how an excessive enforced exercise may become injurious.

With regard to singing Oertel observes :—

"The healthy influence of singing on the general health, and especially on the lungs, has long been acknowledged, and almost all singing masters of any celebrity can tell of one case or another of consumption cured by their method of singing. Even though their diagnosis may not be very accurate in these cases, yet there is no denying that the influence which may be exercised by singing upon imperfectly developed lungs, narrow chest, anæmia, disturbances of nutrition in the lungs, and catarrhal conditions is a very important one and generally attended with good result. The singing mistress, Marquise Ciccolini, mentions a phthisical girl, who, by means of judicious singing exercises, not only acquired a very good voice, but was perfectly restored to health.

"In consequence of the report sent in from various quarters on the healthy influence of singing on the respiration and circulation, and on the strengthening and nutrition of the lung, the practice of singing has been introduced even into prisons, in order to antagonise pulmonary consumption, which generally developes in a short time among the convicts." And P. Niemeyer mentions a phthisical subject who, probably having no capacity for singing, cultivated whistling as the most effectual form of respiratory exercises.[6]

The influence of marriage on persons with a predisposition to phthisis, apart from its effect on their offspring, is a question which admits of being regarded from two points of view. For the female it is altogether undesirable, the dangers to health which child-bearing and lactation bring in their train, and the worries and difficulties rarely wholly absent from the happiest unions tend to depress the general tone and so to lead to the development of the inherited disposition.

It may be different with the male, if, in his case, marriage be the only thing that can save him from a life of disorder and dissipation ; otherwise for both male and female, a quiet, well-ordered, single life is no doubt the most conducive to long life.

(3) We have long been thoroughly alive to the fact that certain conditions and circumstances of life, not only favour the development of phthisis in those who inherit the predisposition, but also tend to its production and acquirement in those who are apparently free from any such inheritance. Prophylaxis is then in the third place concerned with these conditions and with their removal.

It may be said that sedentary occupations in general favour the production of phthisis, and they do so still more when sedentariness of occupation is combined with faulty positions of body, which interfere with due expansion of the chest, as in the case of tailors, shoemakers, seamstresses &c., or with defective ventilation as when these occupations are conducted in close, hot workrooms or living apartments.

Occupations which expose the workers in them to the inhalation of particles of dust are dangerous, especially when the dust is of a hard metallic or mineral nature ; steel polishers, pin-makers, flint-polishers, mill-stone grinders, masons, plasterers, brush-makers, furriers, mattress-makers, all these occupations are found to favour the acquirement of phthisis.

Such persons would find a valuable protection in wearing, while at work, a light respirator containing a thin layer of cotton-wool between two pieces of stiff-net.

Occupations associated with the inhalation of irritating gases which tend to excite bronchial catarrh, are also to be avoided, as are those, too, which involve exposure to high temperatures and to sudden and

[4] Fonssagrives—"Thérapeutique de la Phthisie Palmonaire." Deuxième edition, p. 70.
[5] Lombard and Bouchardat.
[6] "Respiratory Therapeutics." Author's Translation, p. 532

great variations of temperature, as in the case of bakers and others.

Excessive study in a close and confined atmosphere and combined with faulty attitudes of the body must also be guarded against.

Finally something must be said on the subject of the prevention of the conveyance of the germs of phthisis from the sick to the sound.

Referring to the report published by the Collective Investigation Committee of the British Medical Association on the "Communicability of Phthisis,"[7] Professor Wm. Roberts, of Manchester, observes: "I think no candid person can read this report, and the detailed evidence on which it is based, without coming to this practically important conclusion, that no healthy person should be permitted to occupy the same bed with a sufferer from pulmonary consumption, and that no person with a hereditary predisposition to tuberculous disease should be allowed to have continued and intimate personal contact with a phthisical patient, and I cannot help adding that a grave responsibility would in my opinion be incurred by a medical man knowing this evidence, no matter what his theoretical opinions may be, who would permit such cohabitation and close personal contact." I cannot state the case in better words than these, and as I was myself the compiler of the report referred to I may add that I entirely agree with the deductions here drawn from it.

Oertel is very explicit on this subject:—

"The possibility," he says, "that individuals in whom there was no predisposition or hereditary tendency to pulmonary phthisis or tuberculosis should yet acquire it by means of contagion and succumb to it sooner or later, had been repeatedly put forward by the older physicians, who had opportunities of making many observations, and in our days the possibility of a direct communication of tuberculosis by inhalations of pulverised sputa and their extraordinary infectious properties have been experimentally ascertained.

"This being the case, the duty of the physician is to ward off in every way the well-known injurious influences by which this formidable disease is capable of diffusing itself wider and wider. The older physicians, who had large opportunities of observation, have repeatedly maintained, as Tappeiner has done recently, that quite healthy girls belonging to healthy families, by long attendance upon phthisical patients, have themselves become phthisical and died very soon, and they have then deduced the theory that the contagious infection of phthisis was possible. I myself have made a number of remarkable observations on the subject, and have received from physicians who practised for many decades in the same neighbourhood communications which could only be satisfactorily explained by the hypothesis of direct transmission of tuberculosis to healthy subjects.

"Tappeiner was the first to suggest the probability that phthisis might be transmitted by inhalation of the sputa of phthisical patients, scattered in fine particles through the air by coughing, and he made experiments on dogs with phthisical sputa in the Pathological Institute at Munich, which fully confirmed the accuracy of his theory. Comparatively small quantities of phthisical sputa sufficed to produce phthisis and tuberculosis in various forms in perfectly healthy dogs. Tappeiner's experiments were frequently repeated in the Munich Pathological Institute, with the same result, and the deleterious nature of the sputa was fully proved. We may safely assume that the same sputa which, inhaled in a pulverised condition, are capable of generating tuberculosis in the lungs of dogs, so little disposed to tuberculosis, will have the effect of producing this disease in the incomparably more sensitive human lungs. There is also no doubt that by the elevated respiratory pressure of coughing the tuberculous sputa are pulverised in the same manner as by the compressed air of a Bergson's hydroconion, and the difference only lies temporarily in the small quantity which is reduced to pulverisation by each fit of coughing, but which is more than balanced by the frequency of the paroxysms and the duration of the malady.

"In face of these facts the practical physician must put the question seriously to himself whether there are no means of preventing this transmission of tuberculosis to healthy persons by the respiratory air, and prophylactically resisting this disease as much as possible. I have myself been making experiments during the last two years for the solution of this question, and intend to carry them out systematically wherever there is reason to fear a direct transmission of such substances through inspiration.

"There are several methods at our command by which we may effect an elimination of the sputa scattered through the air by coughing, in the sick room and in the vicinity of phthisical patients generally—first, by passing a free current of air through the rooms inhabited by such patients, by thorough ventilation and general cleanliness; secondly, by direct disinfection of the air in the vicinity of the patients; and thirdly, by attempting by inhalations of disinfectant and anteputrefactive agents, to which we shall return later on, to render the infective substances in the bronchi and the cavities of the patient himself more or less innocuous. We have learned practically by the application of Lister's spray in operations how completely the air can be cleared of the bacteria or septic germs contained in it, and I would suggest that the same method should be adopted—the diffusion of the spray of carbolic, salicylic, or boracic acid in the immediate neighbourhood of the patient and in the sick room generally—for the purpose of precipitating from the air and destroying the sputa carried out by the expiratory current and scattered by the cough.

"When attending patients in advanced stages of phthisis, I have a three to five per cent. solution of carbolic acid or a four per cent. solution of boracic acid pulverised by means of a good inhalation apparatus every hour for a quarter of an hour or longer, close to the sick bed or even in the immediate vicinity of the patient, and administer the same solution to the patient himself in inhalations four to six times a day. But even in the early and the middle stages of phthisis, when the patients are still able to move about, I administer disinfecting solutions several times a day, especially when there is profuse expectoration, partly to paralyse the deleterious influence of the putrid and putrefying secretions of the bronchi and cavities upon the respiratory mucous membrane and the lungs, partly to reduce their infective property as much as possible even before their eventual suspension in the air and to protect other persons from infection. For the same reason I make such patients wear medicated respirators with strong disinfectants in the receiver, for their own benefit and for the protection of other people. I also recommend the male and female attendants, at times when no thorough ventilation and disinfection of the air of the room by carbolic spray can be carried on, and when the patient has laid aside his respirator, to wear in the nose Feldbausch's small inhalation tubes, which are impregnated with carbolic acid.

"I well know the difficulties that stand in the way of such a prophylactic treatment, as well as the objections that will always be raised against it. But necessity compels us, in dealing with a disease hitherto so inaccessible to prophylactic or therapeutic treatment, to

[7] Collective Investigation Record. July, 1883.

adopt extraordinary measures and to carry them out with determination."[8]

Care should be taken to disinfect the pocket-handkerchiefs used by phthisical patients, and their sputa should be received in spittoons or covered vessels containing a five to ten per cent. solution of carbolic acid.

Having now passed in review the chief points to be attended to in the Prophylaxis or Preventive Treatment of Phthisis, I shall pass on in the next lecture to the consideration of its remedial treatment.

A CASE OF DOUBLE POPLITEAL ANEURYSM — FAILURE OF PRESSURE — LIGATURE OF FEMORAL—RECOVERY.

By W. J. WALSHAM, F.R.C.S.,
Assistant Surgeon to St. Bartholomew's Hospital.

J. Y., a man 44 years old, but looking several years older, came under my care at St. Bartholomew's Hospital during the autumn of 1882. He had formerly been engaged as a potman and had "drunk a good deal." He ricked his right knee about two years ago, and has since had what he calls rheumatic pains in it occasionally; but he has only noticed a swelling in the right ham for one month, and was not aware that he had a similar swelling in the left ham. He denied ever having had syphilis or other venereal disorder. In the right popliteal space there was a pulsating swelling the size of an orange. The pulsation was of a distensile character and was stopped by pressure on the femoral artery in Scarpa's triangle; but not by flexion of the knee. There was a loud bruit in the swelling and throughout the whole length of the femoral artery. In the left popliteal space was a similar but smaller swelling. There was no œdema of either leg. The knee joints were natural and the tibial arteries were distinctly felt at the ankles. The heart's apex beat just outside the left nipple line, and over it an ill-defined systolic murmur was heard. There was a well-marked double aortic murmur at the base.

On August 21st, flexion and digital compression were begun on the right side at 4 p.m., and kept up during the night and greater part of the next day. Chloral grs. xv at 8 p.m. Morphia hypodermica gr. $\frac{1}{8}$ at 11 p.m., and at 2.30 a.m. Chloral grs. xx at 4 a.m., and pulv. opii gr. $\frac{1}{2}$ at 5.30 a.m. were administered, but he could get no sleep, complained of great pain, and begged that the compression might be discontinued. The tumour was not altered, or, if anything, slightly larger.

On August 24th I tied the right femoral artery in Scarpa's triangle. Two ligatures of kangaroo tail tendon were placed on the artery three-eighths of an inch apart, and the vessel was completely divided between them. The divided ends retracted on division fully a quarter of an inch. Pulsation in the tumour ceased on tightening the first ligature. The operation was done under the spray; a drainage tube was inserted into the lower part of the wound, which was dressed with antiseptic gauze, and the limb, which had been previous to the operation swathed in cotton wool was placed on a pillow and slightly raised. The patient had a fair night. The wound was dressed on the 26th, 29th, and September 1st, when it was found healed, except at the situation of the drainage tube. From this date the patient did well a small sinus remaining for some time where the tube had been. On September 18th, at 3.30 p.m., a shot bag was applied to the left femoral artery, but it caused so much pain that it was taken off again at 6 p.m. The patient absolutely refused to have it or any other form of pressure continued, and requested that the vessel might be tied. On September 22nd this was done, the artery being divided after two ligatures had been applied as on the right side. He progressed satisfactorily till the 25th, when his temperature suddenly ran up to 102·8°. The constitutional disturbance did not appear to be referable to the wound, which was looking well; and the next day, the 26th, a dusky red swelling about the size of the palm of the hand was noticed on the inner aspect of the middle third of the left thigh, the wound still looking well. On the 27th a large bleb formed over the inflamed spot. On the 28th the gangrenous patch was spreading, and a charcoal poultice applied. On the 29th the patch was still spreading; the operation wound was looking well; the gauze dressings were stopped and oil lint was substituted. On the 30th the slough was separating and was removed on October 4th, leaving an ulcer four and a half inches in diameter on the inner and posterior aspect of the thigh.

From this date the patient progressed satisfactorily, and on October 30th the note states "operation wound soundly healed, ulcer rapidly decreasing in size." After this time the ulcer healed but slowly, but the patient gradually improved in strength and was discharged on December 27th with the ulcer firmly cicatrised. The patient when last seen, a year afterwards, was, except from his heart mischief, in good health.

Simultaneous aneurysm of both popliteal arteries is, I think, sufficiently rare to make this case, did it possess no other features of interest, of value. The patient was the subject of double aortic and mitral disease; he confessed to having drunk a good deal; he was of an irritable and irascible temperament, and the aneurysms, especially the right one, appeared to be of recent formation and were rapidly increasing in size. He, therefore, appeared to be anything but a favourable case for treatment by pressure; but, as it was suggested at consultations that, probably, no harm could come by giving this a short trial, Mr. Willett had, previously to my taking charge of the wards during his autumn holiday, begun digital compression. The patient bore it so badly that it was discontinued after some hours, and the artery was ligatured at the apex of Scarpa's triangle. Digital pressure on the right side had given him so much pain and annoyance that he would not submit to its being tried on the left, and although, after much persuasion, he allowed a shot bag to be placed on the artery, he absolutely refused to have it kept on for more than three or four hours, and begged that the vessel might be tied. Both arteries were secured by applying two kangaroo-tail tendon ligatures about three-eighths of an inch apart and dividing the vessel between them. It is not here intended to further refer to the several advantages which this method presents over the ordinary way of tying the vessel. These were discussed and advocated in a paper in the *British Medical Journal* for last year. I would merely add that subsequent experience has not led me to change the opinion that was there expressed that this method is the safest at present known, and I have recently tied the external iliac artery in this way with the most satisfactory result. After the ligature of the right femoral the patient made a rapid recovery; but on the third day after the ligature of the left femoral the temperature suddenly rose, and a circumscribed gangrenous patch formed on the inner aspect of the middle third of the left thigh. When gangrene occurs after ligature of the femoral it generally begins in the toes and foot, and spreads upwards a variable distance towards the trunk, but I have hitherto had no experience of circumscribed patches of gangrene occurring,

[8] Respiratory Therapeutics. Author's Translation, p. 337 et seq.

as in this case, in the thigh. It was quite distinct from the operation wound, which was, moreover, healing satisfactorily, and it could, therefore, in no way be attributed to any abnormal process going on in the wound. The situation of the patch suggested the idea that it might be due to injury of the branch of the internal cutaneous nerve which crosses the artery at the place where it is usually tied. I do not think, however, that the nerve was injured; it was certainly not seen.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

IRREDUCIBLE RIGHT FEMORAL HERNIA—OPERATION FOR RADICAL CURE BY EXCISION OF OMENTAL AND SEROUS SACS—PRIMARY UNION.

(Under the care of Mr. R. CLEMENT LUCAS.)

(The following case was reported by Mr. F. Pearce and Mr. Andrews, and dressed by Mr. Mugford.)

S. A., aged 25, was admitted into Martha Ward, Guy's Hospital, on July 14th, 1884.

Family History.—Patient is unmarried; her father was subject to rheumatism and died of consumption. The mother died from bronchitis some four years ago. There are two brothers, one of whom has suffered from rheumatism.

Previous Diseases.—Has had rheumatic fever three times, the last attack occurring about eight years ago. There is also a questionable account of an attack of inflammation of the lungs.

Present Disease.—The patient believes that the hernia existed some eight years ago, but it occasioned her no discomfort until four years ago. Since that time she has worn a truss, but irregularly and never for any very long period together. After any vigorous exercise the rupture gives her a good deal of trouble. The patient states that she has had for some time a similar swelling on the left side, but this has never troubled her much, and she gives no definite history of it.

She was a patient of Mr. F. M. Corner, and it had been found impossible to apply an efficient truss. On several occasions she had had symptoms of strangulation, necessitating the application of ice and taxis. The bowel had on each occasion been reduced, and the symptoms then subsided, but a tumour remained. It had been suggested by a surgeon who had seen her in consultation, that the abdomen should be opened, and the hernia pulled back from the inside.

Condition on Admission.—A strong healthy-looking woman with a right femoral omental hernia. On the left side, one of the femoral glands is enlarged to the size of a small haricot bean and is painful on pressure.

July 15.—Chloroform having been administered, Mr. Lucas operated in the following manner. A vertical incision was made over the tumour two inches in length, inside the line of the right femoral artery, and commencing a little above Poupart's ligament. The tissues having been carefully divided, the sac was reached, and upon being split open on a director, exposed a piece of omentum. This was also opened and another sac exposed, which, however, contained no bowel. The piece of exposed omentum, having been isolated by two catgut ligatures, was then excised. The excised omentum measured in its two longest diameters 1½ inches by ½ an inch. It was hollowed out in its interior into a cavity lined by thickened serous membrane, and it was evident that into this cavity the bowel was apt to descend and to become strangulated. After the omentum had been excised, the external peritonæal sac was dissected out and cut away at the neck, but no ligature was put round its base. The edges of the wound were brought into apposition by four wire sutures, and carbolic gauze dressings applied. No drainage tube was put in. In the evening patient complained of feeling chilly, but this was relieved by another blanket being put on, and hot bottles applied to her feet. Temperature 99°.

July 18.—The wound was dressed this afternoon for the first time, and seemed to be healing well, and without discharge. Temperature in the morning 99·2° F.; evening 97·8° F. Fish diet was ordered.

July 21.—The stitches were removed this afternoon (second dressing) and the wound was seen to be rapidly healing by first intention.

July 24.—The wound is now completely healed.

August 4.—Patient went out to-day, wearing a truss which fitted her comfortably.

Remarks.—The foregoing case ran the course of an uncomplicated antiseptic operation, healing without suppuration or rise of temperature, so that three weeks from the day of operation she was able to leave the hospital with the wound soundly healed, and bearing comfortably the pressure of a truss. The case illustrates well the value of an operation in such cases. The existence of a complete omental sac in which a loop of bowel was frequently entrapped accounted for the difficulty that had been experienced in fitting an efficient hollow truss over the tumour.

RIGHT INGUINAL HERNIA, CONTAINING OVARY AND FALLOPIAN TUBE—OPERATION FOR RADICAL CURE—REMOVAL OF OVARY AND TUBE, AND EXCISION OF SAC.

(Under the care of Mr. R. CLEMENT LUCAS.)

(The following case was reported by Mr. H. E. Crook, and dressed by Mr. W. L. Blight.)

J. D., aged 39, was admitted into Lydia Ward, Guy's Hospital, on August 7th, 1884.

Family History.—Father is alive and healthy; mother died of cholera about 30 years ago. Patient has one brother and three sisters, all of whom are alive and healthy.

Personal History.—The patient is a married woman, and has had eight children, all healthy. She has never had an illness that she can remember.

History of Present Disease.—Patient has had an inguinal hernia for the last 14 or 15 years. Until last Christmas she did not experience any inconvenience from it, and did not wear a truss. Last Christmas she had an attack of peritonitis which lasted about a month. A lump about the size of an ovary was then for the first time noticed blocking up the inguinal canal, so that the bowel did not descend. Other attacks of peritonitis ensued, the illness altogether lasting some six months. About four weeks ago the swelling increased and became very tender; the patient was again attacked by peritonitis and on recovery came up to the hospital. The rupture now comes down on the top of the lump.

Condition on Admission.—A healthy looking woman, of 39 years, with a lump the size of an ovary in the inguinal canal and above and internal to the pubic spine. It is soft and lobulated. and does not swell or

become tender at the menstrual period. The swelling in the inguinal region measures 2 by 1¼ inches. Urine normal.

August 8.—Chloroform having been administered, Mr. Lucas made an oblique incision 2 inches long, extending down to the inguinal canal. After some vessels had been twisted, the canal was opened on a director, and the sac exposed. This was opened and proved to contain the fimbriated extremity of the Fallopian tube to which was attached a small cyst (⅜ of an inch in diameter) filled with clear fluid. It was noted that the walls of the sac were very thick. The pedicle of the sac was then transfixed with an aneurysm needle, tied with a double ligature, and then divided. The edges of the wound were brought together by four wire sutures, and the usual green protective and carbolic gauze dressings applied. During the operation, patient was very sick, and on recovering from the effects of the chloroform, an opiate was given. (Pil. opii gr. j.)

In consequence of much sickness in the early part of the night Tr. Iodi m. ij, Aqua ad. ℥ij, was administered every half hour until the sickness ceased, when Mist. Ammon, effervescens ℥j were ordered.

August 11.—The external appearance of the wound is good, but there is much deep swelling due to blood extravasation. Temperature, morning 102° F., evening 101° F.

August 12.—The swelling has subsided. In consequence of pain, an ice bag was applied to the right side. Temperature, morning 101·2° F., evening 101·4° F. The wound was opened up and drainage obtained.

August 14.—Patient is progressing favourably. Temperature, morning 99·1° F., evening 100·3° F.

August 27.—Wound has been dressed daily, and is going on well. A tonic mixture containing iron was ordered.

September 1.—Patient has been up frequently. Wound still going on well.

September 10.—Patient discharged with wound healed.

Remarks.—Although the patient made a good recovery, in this case primary union was not obtained, and considerable fever with slight suppuration followed the operation. Mr. Lucas's rule is always to dress every case on the day following operation (1) if the temperature rises above a 100°, or (2) if blood has come through or by the side of the dressings. Bleeding from some unsecured veins took place in this case, forming a swelling beneath the skin and escaping by the side of the dressings, but the bleeding being venous in character and small in quantity was mistaken by the nurse for an onset of menstrual flux, and the case was left till the temperature had risen to 102° F. When free drainage was obtained, the temperature soon subsided, and the wound was healed at the end of a month. A great deal of pain extending into the loin followed the operation, apparently occasioned by the sympathetic around the Fallapion tube being included in the ligature. This may also account, in part, for the severe vomiting which followed the operation.

Prevention of Ophthalmia Neonatorum.—In the October number of the *American Journal of the Medical Sciences* Dr. Garrigues gives an account of the great success which has attended the adoption of Credé's preventive treatment of this affection in the New York Maternity Hospital, where it used to be very common. Immediately after tying the cord, the outer surface of the eyelids is washed with plain water. They are then separated slightly, and a single drop of a two per cent. solution of nitrate of silver is allowed to fall on the cornea from a solid glass rod, which is the best instrument for effecting the operation. Of 351 children so treated not a single one became affected.

Medical Times and Gazette.

SATURDAY, DECEMBER 13, 1884.

A meeting was held in the Governors' Court Room, at Guy's Hospital, on Wednesday, December 10th, to consider what steps should be taken to give substantial expression to the universal feeling of regret to which the death of Dr. Mahomed has given rise. A large attendance was gathered together under the presidency of Dr. Wilks, amongst whom were the treasurer of Guy's Hospital, and many prominent members of the medical profession with whom the late physician had been connected in the various undertakings with which his name has been associated. In a few eloquently simple sentences Dr. Wilks sketched the career of Dr. Mahomed, showing how, in spite of the ever-present drawbacks to which his slender means subjected him, he steadfastly fought his way onward until he had been able to enter upon practice in the West-end, not with any shadowy prospect of a sufficient income to maintain his position, but with the absolute certainty that with the maintenance of health his pecuniary resources would be amply satisfactory. Struck down at a moment when the necessary expenditure on house furnishing had temporarily drained his surplus capital, he had, by no act of folly or extravagance, left wife and children totally unprovided for. A resolution to open a general subscription on their behalf was proposed by Dr. Pavy and seconded by Mr. Field, and unanimously agreed to. A general Committee, consisting of representatives of the hospitals with which Dr. Mahomed was associated, and of the University of Cambridge, the British Medical Association, and the Collective Investigation Committee, and of personal friends, was nominated for the purpose. A smaller Committee, to whom the necessary work will be entrusted, was then formed, having Dr. Wilks as its Chairman, Mr. A. E. Durham as Treasurer, and Dr. Goodhart and Mr. Jacobson as Secretaries. The proceedings closed with a vote of thanks to the Treasurer of the Hospital for the use of the Court Room as the place of meeting. A subscription list was at once opened and found very many signatories, a list of whom will be found in another column. In accordance with the resolution of the meeting, a general appeal will be made without loss of time; but there are very many members of the profession who will not wait for it before communicating with the treasurer of the fund. The truth of the adage *bis dat qui cito dat* has never been more worthy of being borne in mind than in the present instance.

Dr. Isambard Owen, the Secretary of the International Investigation Committee, writes to us:—I think your readers will be interested to read some of the many expressions of regret and sympathy at the death of the late Dr. Mahomed, which I have received from the Members of the International Committee for Collective Investigation. Professor D'Espine, of Geneva, writes: "I hasten to express my sincere

sympathy for the sad loss that you have just sustained in the person of Dr. Mahomed, whose eminent qualities I had an opportunity of appreciating at the Congress of London." Professor Trier, of Copenhagen, writes: "With full and sincere sympathy I have received the information of the loss the profession of your country has sustained by the death of our excellent colleague. I beg you to receive the expression of my feelings on this occasion, and to communicate them to Sir William Gull and to Professor Humphry." Professor Lepine, of Lyons, says: "I learn with the most lively sorrow the death of our colleague, Dr. Mahomed. I shall devote a few lines to him in the forthcoming number of the *Revue de Médecine*. Personally, I am very grieved; for science it is a great loss, and for our Committee as well." Letters to similar effect I have received from Professors Ewald and Bernhardt, of Berlin; from Professor Bouchard, of Paris; and from Professor Lange, of Copenhagen.

At an extraordinary meeting at the Royal College of Physicians of London, held on Tuesday last, the president, after a brief reference to the grievous loss that the college and the profession has sustained through the death of Dr. Mahomed, announced that he had appointed Dr. Frederick Farre and Dr. Fincham vice-presidents of the College, and at his request Dr. Goodhart, the friend and colleague of the late Dr. Mahomed, had undertaken to deliver the Bradshawe Lecture next year. A communication was received from the General Medical Council, enclosing copies of its recommendations with regard to professional education and examination, and asking for the opinion and criticism of the College thereon. The Council purpose revising these recommendations during their next session, and desire to be aided in that work by the advice of the several licensing bodies. With this view the Council have proposed a series of questions on certain debateable subjects with regard to which it may be supposed that the opinions of the qualifying authorities will be especially valuable; such, for instance, as whether the present *minimum* period required by the corporations to be devoted to professional education is really sufficient; and whether the age of 21 years is practically the best that can be fixed upon as the earliest at which candidates shall be admitted to the final examination for a qualification to practice. This communication was referred to the Committee of Management for the Joint Examining Board. A report was received from that Board pointing out that the regulations of the Joint Examining Board will come into force on the 1st of January next, and recommending that, though these regulations are obligatory on those students only who commenced professional study on or after the 1st of October last, yet older students, should they desire it, shall be admitted to the examinations under the regulations of the Joint Examining Board, instead of as before by the separate Boards of the two Colleges. As under the new regulations a candidate may take the examinations in two or more parts at different times, and, should he be partially successful in any examination, will, on presenting himself for re-examination, be examined only in the subjects in which he formerly failed, it may be expected that senior students will be eager to go up under the new system of examination, instead of going before the old Boards. The recommendation of the Board of Management was adopted by the College. It was stated that synopses indicating the range of the subjects of the first and second examinations have been prepared; and can be obtained with the regulations of the Joint Board.

At the same meeting the Finance Committee presented a special report with a proposal to procure a site on which to build examination rooms. The number of candidates for the College licence has increased very rapidly in the last few years, and it has yearly become more and more difficult to conduct the required examinations within the College walls. In July last 281 candidates presented themselves at the first examination for the licence; and during October 340 candidates underwent examination there; and the whole College had to be given up to that one purpose, to the great discomfort and inconvenience of the Fellows, Members, Licentiates, and officials. In these circumstances new and larger examination rooms have become an absolute and urgent necessity; and as the College of Surgeons have for some time laboured under similar difficulties as regards their examinations, it has been decided that the two Colleges shall unite in erecting an examination hall which shall provide all the space, and all the appliances for conducting in the least uncomfortable way possible, all the examinations of the Joint Board. The proposals of the Finance Committee in this matter and the action already taken by them were approved by the College of Physicians; and it is understood that an excellent and very convenient site for the proposed building has been found, and that the two Colleges are in complete accord in the matter.

On Monday evening last, at the Medical Society, Mr. Trêves read a paper on Intussusception. It was a statistical rather than a clinical essay, but one of great value and interest nevertheless. His object was to show that spontaneous elimination of the intussuscepted gut occurs least frequently at the age when the most dangerous form of the disease is commonest, and in those cases in which ordinary treatment is least successful. Then he urged that laparotomy should be undertaken, and that the surgeon ought not to wait until the effects of the disease almost certainly preclude a successful issue to the operation. Dr. Day referred to a case which he had successfully treated by enemata and two minim (!) doses of tincture of belladonna. Dr. Routh also spoke of the value of this drug; but in such small doses that we should not expect any assistance from it. He appeared to forget that in order to obtain the physiological action larger doses comparatively must be given to children than to adults, as was pointed out by Dr. Crocker. Mr. Pitts advised careful manipulation, just as we apply taxis in hernia, with insufflation, under an anæsthetic. Mr. Barrow had seen good effects from ice. Mr. Pick thought there was no parallel between intussusception and hernia. Abdominal section was always a very grave and difficult operation;

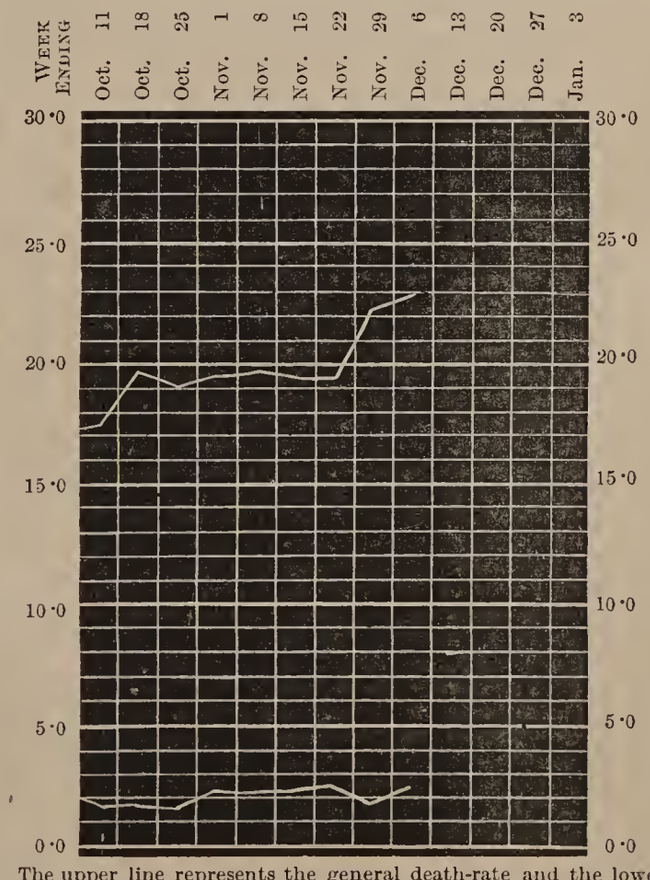
a statement with which Mr. Gould agreed. Mr. Royes Bell related two interesting cases. Mr. Rose thought the statistics both interesting and instructive. At the next meeting of the Society, on Monday next, Sir Andrew Clark will speak on a certain form of chronic pneumonia.

At the Royal Medical and Chirurgical Society on Tuesday last, Dr. Kidd read a paper on the distribution of the "tubercle bacilli" in consumption. He contended that the presence of these micro-organisms is too universal to be accidental. The discussion which followed was interesting from a two-fold point of view. Sir Andrew Clark, chiefly on clinical grounds, argued against the special significance of these bacilli: "For there are cases of destructive disease of the lung, giving symptoms indistinguishable from phthisis, in which no bacilli can be found." In a few cases also of general tuberculosis, after diligent search he had failed to find the bacilli; while in caseous pneumonia, which as far as its life history was concerned was *not* phthisis, the bacilli were found. By phthisis he meant, "that assemblage and progression of symptoms associated with or dependent upon the ulcerative or suppurative destruction of more or less circumscribed, non-malignant deposits in the lungs." The second point was Mr. J. B. Sutton's interesting explanation of the "histological puzzle, the giant-cell," as studied in the lower animals. In sections of the liver from birds dying of tuberculosis the giant cell is constantly found, and always filled with bacilli. Studied in still lower forms of life, as in the daphnia (the common water flea), it was shown to be an assemblage of white blood corpuscles, attacking, so to speak, a bacillus with a view to exterminate it, or hunt it out of the animal's organism. Dr. Creighton's remarks were quite wide of the mark, being a criticism on Koch's views and methods of cultivation, rather than on Dr. Kidd's paper; hence they did not meet with that attention from the meeting which they deserved. A motion to prolong the sitting was lost, but an amendment to adjourn the discussion until the next next meeting was carried *nem. con.* The great interest manifested in Sir Andrew Clark's views and the importance of thoroughly studying the question in the light of clinical facts, as well as from the more purely laboratory standpoint, fully warrants the adjournment. Many eminent authorities on lung disease have signified their intention of taking part in the adjourned discussion, which, however, will not take place until January 13th, 1885.

If it be true, as we hear it is, that Dr. Bristowe is to be the next President of the Pathological Society, the renewed lease of activity may be looked for. Dr. Bristowe has been a liberal and constant contributor to the Transactions of the Society, and will doubtless make an able and sympathetic President. Lately, it has appeared to us as if the object of the evening were to hurry through the list of specimens in the shortest possible time, while discussion on the card specimens, contrary to the original intention of the promoter of this plan of exhibiting, has been actually disallowed. We shall be glad to see the old and better plan revived of asking whether any member wishes to speak on them, as this is the only control to which they are subjected before being published in "The Transactions."

Oxford has during the past few years undergone a good deal of vilification in certain quarters for not providing a more complete medical education for her sons. It is a matter upon which there has been, and probably always will be, much difference of opinion, but the announcement which we have to make to-day cannot fail to meet with the approval of all. Hitherto the teaching of human anatomy, though not discouraged by the authorities, has not had the support it required, and it has, we believe, been entrusted mainly to some senior student in the shape of a prosector. It is officially announced, however, that a lecturer on human anatomy is to be appointed to lecture and give instruction as demonstrator in accordance with the requirements of the English Examining Boards. He will be appointed for five years, and will be eligible for re-election. The salary is to be 300*l.* a-year, and the lecturer is not to engage in private practice. Candidates, who must hold a diploma from a College of Surgeons in Great Britain or Ireland, must send in their applications, endorsed "Lectureship in Anatomy," to the secretary to the delegates of the Common University Fund, New College, Oxford, not later than February 1st, 1885.

The 1,764 deaths registered in London last week, though showing a considerable rise above the preceding record, are yet far short of the average. One tenth of all the deaths falls under the head of zymotic



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past nine weeks.

diseases, small-pox accounting for the lion's share with 37 deaths, to which must be added 24 deaths of Londoners which occurred outside the registration area. This is an unusually high figure, especially when it is known that no fatal case occurred in any of the other great towns of England. There were 263 fresh cases of small-pox admitted into the hospitals during the week. There were 28 deaths from measles and 23 from scarlet fever, showing a slight decline in each case. Diphtheria caused 29 deaths, 20 of them occurring in children under five years of age. There were 499 deaths from respiratory diseases, 11 less than the average. On five days out of the seven there was no sunshine, and the rain it rained every day, so much so that the rainfall exceeded that of the previous seven weeks taken together. There were only 45 deaths from violence, while Birmingham, with a population of less than half a million, had 16 deaths in this group. Oldham distinguished itself by a general death-rate of 38·7 per 1,000. There were 12 deaths from measles and 16 from scarlet fever in Liverpool, and 9 deaths from measles in Cardiff. The zymotic diseases are making very considerable havoc in some of the Scottish towns, as the following death-rates testify, viz., Glasgow, 6·2; Dundee, 6·9; Leith, 7·0; Paisley, 7·1; and Aberdeen, 7·9, per 1,000.

British Justice has found the survivors of the crew of the *Mignonette* guilty of murder, and few can object to the verdict. Some, out of pity for the terrible sufferings of the prisoners, and with serious doubts as to their own fortitude under similar temptation, may feel that the decision is a cruel one, even though the death-penalty has been remitted, but on ethical grounds it is unassailable. What has been the benefit of the centuries of murder and rapine which are supposed to have nourished in men the instincts of justice, helpfulness and loyalty to each other, if we are to pardon, and so to sanction, even under the stress of the greatest temptation, the dispossession of these higher instincts by the lower ones over which it is our boast that they have triumphed? It is not a question for the physiologist. He will tell us that human flesh is as truly nitrogenous food as is that of other animals; that human milk is the most perfect of all natural aliments; and human blood, when transferred into the veins of an exsanguined person, for instance, as truly a source of life and strength as is the butcher's meat provided for the healthy. The taste of human flesh, if it could be dissociated from its origin, might probably be found to differ but little from that of other mammals; indeed, if the stories told of Richard I., or of Sir Ewen Cameron, and the writings of Lindsay, of Pitscottie, are to be believed, as well as the generally received opinions of the Polynesian cannibals, its flavour is superior to that of other animals. St. Jerome records the existence of the practice; and so late as the end of the sixth century a certain king of Northumbria, Ethelfrith by name, is said to have encouraged its practice. On the other hand, when devoured in order to avert starvation, and under the ruthless tyranny of want, the flesh of man, like that of any animal worn out by toil and hunger, is a diseased and more or less innutritious food. These considerations, however, are little germane to the question, which, as we have said, is an ethical, and not a physiological one.

Meanwhile, if indignation is to be of any effective value, it should be reserved for those cases in which the occurrence of such lamentable tragedies as those of the Greely Expedition and the *Mignonette* might have been averted, or at least to some extent guarded against, by the adoption of reasonable practical precautions. And it is no unworthy use of the sensational interest excited by such narratives to endeavour to direct public attention to this end. Would it be impossible to make it incumbent upon the owners of all vessels, other than fishing boats and small coasting craft, to carry a supply of portable tinned provisions properly secured in each of the boats carried by their ships? The amount and character of these supplies and the efficiency of their storage might be inspected every six months or so, by the proper government officials, or whenever the vessel left a British or Colonial port. Twice a year these stores (which should be uninjured by the lapse of so short a time) should be replaced by fresh ones; and as the displaced provisions would be quite fit for immediate consumption, the adoption and working expenses of such a system would entail little beyond its first cost. Having regard to the great sustaining and recuperative value of *blood*, one or two tins of dessicated ox-blood might advantageously take their place in the equipment of each boat. One great difficulty, of course, is that of water; to a small extent this might be economically met by the storage of a certain amount in one or more properly enamelled or otherwise lined compartments in each boat, in the bows or stern; but until science has supplied us with some readier means than distillation, the problem of converting salt water into fresh will mar the perfection of such a scheme. Still, its adoption would go far to rob a shipwreck of much of its ultimate terrors; it would minimise the risks of sudden dangers, and give more time for attention to other important details; it would do much to lessen suffering, and would aid in the preservation of many a life, and lighten the load of many an un-seared conscience.

Mr. Ernest Hart's lecture on "National Precautions against Cholera," delivered at the Parkes Museum on Monday last, contained nothing of great novelty, but it was a forcible, lucid, and reasonable exposition of what ought to be the national policy with regard to a threatened onslaught of the "brutto morbo." Mr. Hart was, of course, severe on European quarantine by land or sea, and on the notorious report of the Vienna Convention, and hopeful as to the comparative immunity of this country in case of invasion. Rome with its pure water supply had escaped, and Paris would probably have been equally free but for a temporary supply of a highly polluted water; while Naples owed its lamentable losses to a soil impregnated with sewage, to its filthy habitations and foul water. In spite of his hopeful prediction, Mr. Hart admitted that the prevalence of typhoid was the true index of cholera

risk, and we could not consider ourselves proof against the latter disease until we had banished the former. He summed his lecture by urging—(1) That quarantine was useless ; (2) that medical inspection of ports was essential, and with this should go means of isolation, compulsory notification of infectious disease, and the active exertions of all local authorities to free the districts under their control from the conditions which rendered them liable to the extension of epidemic disease ; (3) that disinfection was of most doubtful value ; (4) that cleanliness in its fullest and widest sense was the prime element of safety. Votes of thanks were passed to Mr. Hart, and to Director-General Crawford, who presided.

On Thursday week Dr. C. S. Roy, the new Professor of Pathology, at Cambridge, was admitted to the degree of M.A., *honoris causâ*, having been presented by the public orator in the usual high-flown and laboured Latin periods. Dr. Roy's studies at Edinburgh and in Germany, the assistance he had formerly given to Dr. Michael Foster, and the lectures delivered by him at Cambridge at that period were in turn alluded to ; and then "ut ad remotiora transeamus" it was shown how "Ottomannorum inter milites arti medicae deditus, in ipsa Epiro, prope Pindi montes, prope Dodonae antiquae diu desertum oraculum, velut ἰατρόμαντις aliqui, consulentibus respondebat." The simile was pursued as follows :—"Ad eundem postea Respublica Argentina, morbo gravi et inexplicabili oppressa, velut ad oraculum aliquod misit, cujus responsis obsecuta peste illa dira sese protinus liberavit. Inter antiquos quidem victimarum in visceribus rerum futurarum praesagia quaerebantur ; hic autem, non vanus haruspex, ex ipsis morbis quos alii reformidant, ex ipsa Morte quae aliis tacet, veritatem ipsam audacter extorquet,—adeo ut Catonis verbis profiteri possit :

"'Me non oracula certum
sed mors certa facit.'"

Lucan, *Pharsalia* ix., 582.

Amidst all this Dr. Roy no doubt well kept up his new character of augur by laughing in his sleeve.

The profession in this town, writes our Belfast correspondent, has suffered a severe loss during the last few weeks. Dr. Martin, senior dispensary medical officer, died from acute pneumonia after three days' illness, at the early age of 45 years. He was the founder and originator of the Ulster Children's Hospital, which has recently been enlarged, and which has now incorporated with it a large maternity extern-department, and wards for the treatment of diseases of women. Up till the latter changes in the constitution of the hospital Dr. Martin maintained the most active interest in, and gave the most generous support to it. He took also the deepest interest in the Poor-Law Charities, with which he had been connected for many years. He commenced the practice of his profession at the early age of 18, after obtaining the diploma of the College of Surgeons. Dr. Charles Wadsworth, also medical officer of one of the dispensary districts of the town, and one of the obstetric physicians to the Ulster Hospital for Diseases of Women and Children, has succumbed to an attack of typhus upon the twelfth day of the disease. He had, a day or two before the invasion of the fever, been present at the funeral of Dr. Martin, and was one of those who assisted to carry the remains of his deceased friend to their last resting place. His manly figure, the very type and embodiment of health, strength, and vigour, was unusually conspicuous upon this sadly memorable occasion. Dr. Wadsworth was about 35 years of age, above six feet in height, and more than twenty stone in weight. He was champion athlete during his college years, and up till the time of his fatal illness had taken the most active interest in every local athletic undertaking. His remains were followed to the grave last Friday by nearly all the members of the profession in Belfast and surrounding districts. He was vice-president of the Ulster Medical Society, and was most successful in practice.

The bazaar which has just been held in aid of the funds of the Belfast Royal Hospital has been in every sense a solid success. The institution had found itself gradually drifting deeper and deeper into financial difficulties and last month a debt of more than 2,000*l.* existed against it. This was the more unfortunate and unsatisfactory as there had been no unusual expenditure or permanent buildings erected ; but the debt had simply grown from an accumulation of deficits in the income, which has not been meeting the working expenditure for a considerable time. The bazaar and fancy fair realized, as far as the returns show up to the present time, some 3,500*l.* The surplus 1,500*l.* can be well spent in rebuilding the present fever wards, and adding to the building, which is fast becoming unable or insufficient to meet the wants of a great mercantile and manufacturing district with a population of over a quarter of a million.

The Ulster Medical Society held its first ordinary meeting of the present session upon Tuesday evening last, when amongst other interesting matters submitted to the members was a goodly array of cases of *genu valgum*, exhibited by photograph, drawings, and in most instances by patients upon whom the operation of osteotomy had been successfully performed by Dr. St. George, Mr. Fagan (president of the society), and Dr. Browne (ex-president). Dr. Whitla exhibited some of the most interesting specimens which have been shown for a long time at any of the medical societies. They were some bones belonging to the extinct Irish elk—*megasarus hibernicus.* The bones exhibited in the plainest and most unmistakable manner all the pathological characters seen in a typical case of chronic rheumatic arthritis. Two of the huge vertebræ were examined and found to possess, when placed alongside some lumbar vertebræ from an advanced case of rheumatic arthritis in the human subjects, markings surprisingly identical. Professor Gordon, who has a most extensive collection of specimens of the disease in man, was satisfied with the identity of the pathological processes. Dr. Whitla gave a detailed account of the geological history of the Irish elk, and sketched

the position in which it is invariably found in the beds of clay under the peat bogs in the country. He endorsed Mr. Williams' views about the way in which the animal was trapped by its slender feet and legs in the waxy layer of fine boulder clay underlying always the stratum in which it was found. Reasoning from its position in these post-tertiary formations he believed it was clearly prior to man, and thought it was not improbable that the specimens were more than 10,000 years of age. The fact of one isolated discovery of human remains, however, rendered it just possible in the opinion of some geologists that it stretched into the period of early man. The discovery of unmistakable rheumatic arthritis in an animal like the elk, supposed to have been extinguished by a secondary minor glacial period, affords a new field for speculation upon the part played by the disease in its extermination, and opens up unexpected relations between modern pathology and palæontology just at a moment when the disease under question is receiving a very unusual amount of attention and investigation at the hands of scientific physicians. There were also exhibited a case of pseudo-hypertrophic paralysis presenting unusual features, and a series of vegetable, parasitic growths from favus, ring-worm, &c.

Attention was drawn not long since, both in and out of Parliament, to the question of the supposed ineligibility of dispensary medical officers in Ireland to hold Her Majesty's Commission of the Peace. The Irish Medical Association memoralised the Lord Lieutenant on the subject, and the memorial was by His Excellency laid before the Lord Chancellor of Ireland, with whom the appointments to the Commission of the Peace principally rest. After due consideration, the Lord Chancellor arrived at the conclusion that it would be better that no positive rule should exist making the holding of the office of "Dispensary Doctor" a disqualification for being placed in the Commission of the Peace, but that each case, as it came before him, should be dealt with upon its merits, subject, of course, to such safeguards as the interests of the public service might demand. We are very glad to be able to announce in this connection that Dr. George Plunkett O'Farrell, of Tangiers House, Boyle, co. Roscommon, has been appointed a Justice of the Peace on the nomination of the Lord Lieutenant of his county. Dr. O'Farrell is medical officer to the Boyle Workhouse and Fever Hospital, and to Boyle No. 2 Dispensary District. He is a Master of Arts and Doctor of Medicine of the University of Dublin, in which he carried off the highest honours.

Dr. Rogers, the medical officer of health for the Templemichael district of the Youghal Union, co. Cork, is certainly entitled to our sympathy. Having been requested to inspect and report upon certain labourer's dwellings in his district, he devoted six whole days to the task, inspecting no less than 87 cottages. Three more days were then consumed in assisting the guardians to select new sites. For these services he sent in a bill to the guardians of 19 guineas, and 8*l.* 2*s.* expenses. At the trial a verdict was returned in his favour, but this has just been reversed in the High Court of Judicature, though he had the Lord Chief Baron on his side. He was allowed his expenses only, the court deciding that the duties were performed by him in his official capacity. This is a most important decision affecting medical officers of health throughout Ireland.

The election of a successor to the late Professor von Jäger in the University of Vienna is giving rise to a series of heart-burnings and recriminations, such as are now becoming very familiar in the keen competition for the few good posts in the Academies of Medicine. Youth, activity, and the promise of a brilliant future have been for the nonce preferred, in the person of Professor Fuchs, of Liège, to long service and a record of good work in the past, as personified by Professor Mauthner, of Vienna. The choice, however, has yet to be ratified by the Minister for Public Education, and the medical papers in Vienna are making no secret of their respective views upon the merits of the case. So many of our own countrymen have been in the habit of late years of studying in the Viennese school of ophthalmology, that the name of Professor Fuchs, who until lately held the post of assistant to Professor von Arlt, is probably very familiar to our readers. His well-known sympathy with the English School and his remarkably perfect knowledge of the language will render his clinic, if he be ultimately appointed, more than ever the resort of English students of Ophthalmology.

A sad case of the suicide of a young surgeon is reported from Vienna. Having been accused of treating an inflamed finger unscientifically, he was fined and sentenced to repeat his examinations. This, to our ideas, novel and terrible sentence appears to have so affected him that he drowned himself in the Danube. Meanwhile the verdict was appealed against, and referred to the Doctoren-Collegium, who decided that the dead surgeon's treatment had not caused the loss of the finger in question, and so the High Court acquitted him.

The literature of nephrectomy, a subject which has lately been somewhat prominenty discussed, has recently been enriched by an account of a case to which its author rightly prefixes the term "puzzling." Abdominal section was performed on a woman, aged 52, for the removal of a large tumour due to calculous pyonephrosis of long standing. It is stated that the parts were much matted together, and that the pedicle of the tumour was transfixed and secured with a single ligature, being attached at the same time to the edge of the wound. The case did exceptionally well at first, but it was found, some hours after the operation, that no urine was being excreted, the bladder containing nothing but pus. On the second morning severe symptoms of uræmia set in, and a fatal termination rapidly ensued, no urine whatever having been passed into the bladder since the operation. On *post-mortem* examination the remaining kidney was found to be healthy in every respect, with the exception of extreme anæmia and a rather excessive surrounding of fat. Microscopically, no changes could be noted in it. Unfortunately, no record is published of the visible results of

the operation except the fact that no peritonitis had taken place. The complete disorganization of the diseased kidney proved beyond doubt that all the urine must have been secreted by its healthy fellow for many months before the operation. Why, then, did the latter cease to excrete from the moment that the operation was concluded? It is to be regretted that more information is not afforded by Dr. E. Sonnenburgh, who reports the case in the *Berliner Klinische Wochenschrift*, No. 47, 1884, as to the exact structures included in the comprehensive ligature which was placed around the matted pedicle. Even on the supposition that some of the renal vessels or nerves had been so included, it would be difficult to account, however, for the production of simple anæmia, unattended by microscopical changes.

In reference to our note last week on the health of the cadets at Woolwich, a correspondent writes :—I have just seen one of the cadets, and I think if you had seen him too you would not have thought that the hard work previous to admission or at any other time had disagreed with him ; he is the picture of health and robustness. He mentioned to me quite casually the unfavourable report which the visitors had made as to the health of the cadets, so I took the opportunity to ask him how much truth there was in it. He assured me that there was absolutely none. The visitors chose about the hottest day in the year for their inspection, and had been the means of keeping the cadets about six hours back from leave. Hence their pale and jaded appearance. He was positive that any one visiting them now and seeing them in the gymnasium would receive a very different impression. They are not at all flattered at the report which has been published, and consider themselves quite up to the standard of physique which ought to be expected of officers in the highest ranks of Her Majesty's army.

The dangers which are only too apt to attend the careless handling of firearms by persons who fail to appreciate the responsibilities entailed by the possession of such weapons have often served as a theme for the moralist. A case lately reported by Dr. Otis, to the *Boston Medical and Surgical Journal*, illustrates the way in which even the doctrine of chances is set at naught by the evil genius of this particular form of folly. The peculiarly luckless, and yet most fortunate, sufferer was a coachman who, while driving down a village street, was struck on the right side of the neck by a bullet which passed in front of the spine, wounding the lower part of the pharynx, and, avoiding all other important structures by means of a remarkable detour, was found lying just beneath the skin immediately over the great vessels of the left side of the neck. After more than a month of suffering, complicated with the formation of a large abscess originating about fragments of the coat and shirt collar that were carried through the neck by the wandering missile, the patient recovered with nothing more serious than aphonia, apparently due to congestion and thickening about the larynx and ventricular bands, some lack of power in the right arm, and a slight deflection of the head to the right side.

"Let us see how the accident occurred. A student left lying in his room a revolver of 32 calibre, known as the 'Excelsior' pattern, having five chambers. Two of these chambers, adjacent to each other, were loaded. A fellow student coming in, and seeing only the unloaded chambers, supposed they were all so, and so amused himself by snapping the revolver. The first time he pointed it towards his foot, and the hammer came down upon an empty chamber. The next time he aimlessly pointed it out of the window, and the hammer struck one of the two cartridges. The bullet went through a window pane only an inch inside of the sash. Directly in front of the window was an elm tree of moderate size, and perhaps five or six feet distant from the house. The bullet must have just grazed this tree, but it was impossible to discover any trace on the rough, broken bark. A vehicle passes any given point on that street on an average of once in ten minutes, I should think. Just at this time a vehicle did happen to be going by. From the head of the horse to the end of the wagon is quite a distance. Any part of this distance might have been in front of the bullet at the exact time of its discharge, and the chances were many to few against the man's neck being in front. It was in this case. Any part of the neck might have been in the bullet's track. The chances were infinitely few that just the point between the spinal cord behind and the great vessels in front should be the safest place to tap the pharynx from the side. Just that point did happen to confront the bullet. Let us sum up the immense preponderance of the chances against the bullet's causing the accident it did, or, indeed, any accident. First, it struck only one inch beyond the window-sash. Second, a tree was directly in front of the window. Third, a vehicle passes the window only about once in ten minutes. Fourth, the thickness of a man's neck is only a very small part of the line drawn from the head of the horse to the end of the wagon. Fifth, the time taken by the whole of a vehicle to pass a given point is very short; very much shorter is the time a man's neck is passing that point. Sixth, the safe track for a bullet through a man's neck and pharynx is extremely limited. Lastly, there were only two out of the five chambers of the revolver loaded ; the hammer had already descended upon one empty chamber, so that there remained two loaded and two empty chambers, making the chances for and against hitting a cartridge just equal. The bullet went out of the window at a vertical distance of about twelve feet from the ground, and the man's neck was about five or six feet from the ground." To this, as to all similar histories, there belong two morals, of primary and secondary rank respectively. Until the public learn and act upon the first, it will perhaps be safer for coachmen and pedestrians in quiet village streets to enlist in regiments on active service, where at least the majority of bullets wing a harmless flight.

A recent address on the Parasitic Doctrine of Epidemic Cholera, by Dr. Austin Flint, contains some reminiscences which are just now very much to the point, as showing how an incipient epidemic may be effectu-

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ally strangled in its birth by the prompt and searching application of the principles of common sense sanitation. In 1866 New York was threatened with cholera. In anticipation of its prevalence a system of immediate and thorough disinfection, analagous to that of a fire department, was adopted by the Metropolitan Board of Health, which had lately been reorganised. Sanitary inspectors, of whom some were always on duty at the central office of the Board, were appointed to at once visit all cases as reported, and to decide upon the diagnosis. A "disinfecting corps," composed of soldiers who had recently been employed in the Civil War, was organised under the command of an officer of the army. Waggons loaded with materials for disinfection, and with their horses ready harnessed, awaited only a moment's notice to proceed to any infected spot. All these arrangements were placed under the supervision and direction of the sanitary superintendent, and their object was to disinfect the houses and the surroundings, wherever a case of cholera occurred, just as it is the object of a fire brigade to extinguish a conflagration as speedily as possible.

The results achieved by the thorough application of these measures afford the best proof of their efficiency. During the summer and autumn of 1866, cases of cholera occurred in 362 houses more or less widely separated from each other; and "in no case did the disease extend proximately beyond the house in which a case or cases occurred." In the course of the succeeding year twenty-seven deaths from cholera took place in New York City, five in Brooklyn, and eighteen at the military post in New York harbour. The measures used for stamping out the malady were the same as those employed in 1866, and the disease did not prevail as an epidemic. Dr. Flint maintains that in Marseilles, Toulon and Naples—cities which have been lately scourged by this disease—its progress might have been arrested, and thousands of lives might have been saved by measures such as those which proved so successful in New York in 1866-7; measures which may be cited throughout the world as evidence that cholera is a disease which can be stamped out by efficient sanitary measures efficiently employed. "I believe firmly that should the disease be again introduced into this country, to decide whether or not it shall prevail as an epidemic lies within the power of preventive medicine." These be brave words; but who shall say that they are not as true as they are full both of hope and warning?

Dr. Flint points out that the means which proved so effectual in dealing with the threatened epidemics in New York are quite in accordance with the parasitic doctrine of cholera. Assuming the truth of that theory, it is nevertheless impracticable to compass the destruction of the parasite within the intestinal canal by any of the parasiticides which are known to destroy it outside the body. Such anti-parasitic agents as we are acquainted with, if introduced into the digestive canal so as to prove toxic to the parasite, must also prove toxic to the patient. The parasitic doctrine, however, does not invalidate clinical experience; and Dr. Flint believes that there is no disease with greater certainty controlled at the outset than cholera. To such an end the remedy *par excellence* is opium. Opium, together with repose of the body and digestive organs, if judiciously employed before distinct choleraic dejections occur, will prevent the further development of the disease with almost absolute certainty. If this treatment be promptly resorted to as soon as choleraic discharges take place, the disease is arrested in a large proportion of cases. These assertions are based, he states, on a large personal experience as well as on the concurrent testimony of other observers.

Dr. Kelly's tenth annual report as medical officer of health for the combined sanitary district of West Sussex has recently been placed before us. As usual, it bears evidence on the face of it of much honest work, and it is so arranged as not to tax the minds of its readers unduly. The total number of deaths, 1,487, give a death-rate below that of any previous year, with the exception of the two immediately preceding. On the whole the district was fairly free from zymotic diseases, but in July and August there were some fatal cases of measles and diphtheria, and diphtheria and scarlet fever were rather prevalent in November. Lung disease, by which is meant bronchitis, pleurisy, and pneumonia, heads the list of causes of death, taking the place of consumption, which has heretofore stood first on the list, but which this year follows old age in point of frequency.

A GREAT OPPORTUNITY.

Our medical grandees in London have a great opportunity before them, which we very much fear they will have neither courage nor imagination enough to make use of. It is obvious, and needs no demonstrating, that one of the chief wants of the profession is a central home, beneath whose roof should be gathered the many different corporations and societies now scattered broadcast throughout the metropolis. Well, now is the opportunity to obtain it. The College of Surgeons are beginning a new wing, and seriously thinking, it is said, of founding a pathological institute; the College of Physicians, in conjunction with the College of Surgeons, have taken a site in Long Acre, and are about to erect thereon an examination hall, thereby adding one more to the many medical buildings in London; whilst a committee of the Medical Council are considering the advisability of procuring a more wholesome and convenient place of meeting, "whether by renting some more suitable building, or by the erection of a new structure." Here we have three different bodies forced into a policy of bricks and mortar, and yet no one has ventured to suggest that instead of sinking their money in scattered buildings, which they are sure sooner or later to want to enlarge, they should club together, and found a central building which would serve both their own immediate and contingent purposes and a dozen others besides. We should like to see the College of Surgeons taking the lead in this matter, and obtaining powers to build on either side of its present home a series of examination rooms, offices, and congress halls, sufficient to serve for all the examinations that medical students have to pass, and all the lectures and meetings

that medical practitioners are wont to attend. Under the same roof might be housed the Colleges of Physicians and Surgeons, the Medical Council, the British Medical Association, or at any rate its metropolitan branch, which has at present no worthy habitation, the Parkes Museum, and the offices of the various medical benevolent charities. In time, too, perhaps space might be found for that much-needed central polyclinic, where the wealth of material now distributed amongst a dozen special hospitals would be fully utilised for purposes of clinical teaching and research.

The scheme is a large and bold one, but it is amply supported by considerations of convenience, of economy, and of sentiment. First as to convenience. It never falls, perhaps, to the most active and enquiring practitioner to wish in the course of a single afternoon to look up a specimen in the Hunterian Museum in Lincoln's Inn Fields, to take out a book from the Physicians' Library in Pall Mall, to listen to a debate of the Medical Council, to pay a visit to the headquarters of the British Medical Association, and then, after a hasty dinner at his home or his club, to be present at a session of one of the societies in Berners or Chandos Streets. But it must often happen to many practitioners to have to undertake two or more of these duties in the intervals of their day's work, and as it is they cannot undertake them without an amount of locomotion which to the peripatetic portion of the profession will involve a measurable waste of energy and time. Then as to economy. At present the number of lecture and meeting rooms which have to be maintained are a serious tax on the revenues of the profession, and yet scarcely one of them is large enough for its requirements. The theatres of the Royal Colleges are cramped and comfortless; the meeting rooms of the Societies are utterly inadequate for the attendance attracted by a great debate; the well in which the Medical Council meets is admittedly unwholesome and inconvenient for the members of the Council itself, leaving out of account the representatives of the press, and the public; while the British Medical Association has no meeting room at all. For the sums expended on keeping up and periodically enlarging these various chambers, two large and comfortable lecture halls might be maintained, one of them capable of accommodating the largest medical assemblage ever likely to be drawn together. When the inevitable combination of the different medical societies comes about, something of this sort will have to be provided; and we are sure that if the College of Surgeons would use its best efforts to bring the combination about, at the same time undertaking to give house room to the new combined society, it would speedily recoup its initial outlay, and bind to itself by the strongest bonds of gratitude and allegiance the scattered members of the profession.

Lastly, as to considerations of sentiment which, to our mind, are by no means the least important. It is usual to throw ridicule on policies of bricks and mortar; but for keeping and binding men together, bricks and mortar have more lasting power than all the oratory and enthusiasm in the world—a view held from the building of the Tower of Babel to the building of the new Liberal Club. The medical profession has at present no visible symbol of its solidarity but a certain round table in Oxford Street and the *British Medical Journal*. If for these inadequate *eidola* it could substitute a palace in Lincoln's Inn Fields as visible to the public as to itself, it would gain a new consciousness of its own corporate unity, and would impress the laity with a new sense of its authority and importance. The scattered loyalties to different corporations and societies which now exhaust the sentiment of the profession would be gathered into one broad channel of allegiance to itself. Its members, no longer split up into coteries, would have opportunities of meeting, discussing, studying, perhaps dining together, and thereby dispelling the mists of suspicion and misapprehension which now so often separate them. For such results it seems worth risking some money on bricks and mortar.

THE LONDON UNIVERSITY.

So many hard things have been written of late about the University of London, that it is only doing it an act of justice to recall the circumstances under which it came into existence, the difficulties with which it has had to contend, and the influence it has exerted directly and indirectly on education, both general and professional. Sixty years ago, while every other country could boast of numerous seats of learning, where the members of all the liberal professions received their training, there was in England, outside the Universities of Oxford and Cambridge, actually no single institution for higher education, literary or professional. The two ancient Universities had indeed a noble history in the past, but they had failed to keep pace with the necessities of the age, and in several respects to realise the true idea of a university. Their doors were absolutely closed to all but members of the established church, the cost and conditions of college life excluded all but the comparatively wealthy, and attention was almost exclusively directed to classical and mathematical studies. Amongst their graduates, indeed, they counted nearly all the Clergy and a large proportion of the Bar, but not more than a hundred physicians, and, perhaps, half-a-dozen surgeons, and even these had received no part of their professional education within their walls. This they, like others, had to seek abroad or in the schools then growing up in connection with the London hospitals, where young men who, as boys, had served an apprenticeship with surgeons and apothecaries, "walked the hospitals" for a couple of years to study clinical medicine and surgery, and to attend occasional lectures given by the physicians and surgeons, often in their own houses.

Such was the state of professional instruction when a number of men representing every shade of religious opinion, but all equally in advance of their time, conceived the idea of establishing in London a real university on the Scotch or German plan, where arts, law, and medicine should be taught by the ablest professors that could be drawn together, and degrees should be granted by examination only and irrespective of

creed. The sum of 150,000*l.* was subscribed, and on October 1st, 1828, the first "University of London" was opened in Gower Street, but the attempt to obtain a charter empowering it to grant degrees provoked the most determined hostility, on the ground that it would be subversive of religion and morality, notwithstanding the unimpeachable orthodoxy of many of its promoters. Meanwhile, King's College, London, was founded with a view to counteract the influence of the "godless university" by offering like advantages, but strictly guarded by religious tests, and with the addition of a theological faculty. Shortly afterwards, Queen's College, Birmingham, was also established on the same lines. After eight years of fruitless effort at incorporation, the scheme for establishing a teaching university in London was reluctantly abandoned, and a compromise was effected. The original institution took the name of University College, and in 1836 the present University of London was founded on a plan without precedent, except in Republican France. From this time the history of the two institutions diverge, but each has had its influence on the education of the country. To the example of the former we owe the establishment not only of the rival colleges already mentioned, but of Owen's College, Manchester, since raised to the rank of a university, and of the numerous University and Queen's Colleges springing up in provincial towns; and we further owe to it much of the improvement in medical teaching during the last fifty years. But the influence of the University of London has been wider and deeper still, and is seen in the gradual abolition of tests which act as barriers only to the conscientious dissident, and in the recognition of the claims of natural science to an equal place with classics and mathematics in a university curriculum. Cambridge has closely assimilated her examinations for the M.B. to those of London, and it cannot be long before she will follow her younger and more progressive sister in the admission of women to degrees the examinations for which they are already allowed to pass.

The defect of onesidedness, as the Germans would say, of being a mere examining and degree-giving body is one for which the founders of the London University cannot be held accountable. It is a part of its constitution imposed upon it by its enemies in days long past, and fixed by successive Acts of Parliament. Convocation, that is the members of the University, is almost powerless; the Senate is composed of nominees of the Crown, few of whom have had any experience as teachers, or can have any real sympathy with a university to which they do not themselves belong. Recent changes in the examination for the B.A. and B.Sc., leave nothing to be desired; we cannot say the same of the LL.B.; but it is with the degrees in medicine, and the relation of the University to the Medical Schools, that we are chiefly concerned. We would deprecate any attempt to level down the standard to that of Aberdeen or Glasgow in order that every one who now passes "College and Hall" might add M.D. to his name, or to substitute for the present matriculation the smattering of schoolboy knowledge that satisfies the Medical Council. In view of the modern developments of physiology and pathology, we attach the highest value to the purely scientific training represented by the preliminary scientific examination, and that the present curriculum turns out highly educated and successful men is evident from the positions held by the majority of London graduates in the schools and the profession generally. But we must confess that setting aside those students who are excluded by neglecting to matriculate, a neglect for which they or their teachers are to blame, many who in all respects would do credit to the University are prevented from graduating by defects in the regulations of the Preliminary Scientific and Intermediate M.B. examinations. In the former it cannot be denied that the standard, in physics especially, is unreasonably high, and that the loss of an entire year, which failure in a single subject entails, debars the majority of men from further progress. So far as the University is concerned, the difficulty could be met by holding the examination twice a year, and so far separating the chemical and physical, and the biological parts that they might be taken together or separately, and that a man who failed in either might take it up at the next examination. The same remarks apply *mutatis mutandis* to the intermediate examination; the M.B itself calls for no change since the proportion of failures is but small, and a further year of study when a man's curriculum is finished can do no harm. It is only fair to point out, however, that most of the difficulty experienced by students in passing the preliminary scientific examination, is attributable to the defective teaching arrangements at the majority of medical schools, which are mere appanages of the hospitals, schools of medicine and surgery, not of science, and being unconscious of any connection with the University cannot be expected to provide for its demands. But no man can learn science from books alone: he will either find them broken reeds, or he will pass by mere cram, a kind of success which it is the special aim of these examinations to render as difficult as possible. Physics and biology must be learned in the laboratory, just as anatomy is in the dissecting-room; and laboratories with staffs of special teachers can only be supported by endowments, or by the fecs of a large number of students as at University and King's Colleges, where there are a numerous body of men studying science quite apart from medicine.

If by voluntary combination, or if necessary by legislative interference, the number of medical schools in London could be reduced from eleven to five or six by attaching the smaller to as many of the greater ones as centres, where alone the science schools with laboratorics, &c., would be located, much might be done towards raising the character of medical education, and with the changes we have proposed in the University regulations, towards bringing its degree within the reach of every student of abilities above the average. More than this we would not have, for as Professor Burrowes said, "degrees were not meant for idiots, idlers or invalids." Students would enjoy at once a better scientific training and wider fields for clinical observation. One word in conclusion as to the University itself. The Senate must be entirely re-cast and composed wholly of graduates of the University, and teachers in the metropolitan schools of arts, science, medicine and aw; and if the present

impossible standard for the LL.B. were lowered to a fairer pitch, there would be no excuse for the cry for the anomaly of another university for law alone. The existing Senate is an anachronism; for a university that can count among its graduates many of the most eminent names in medicine, law, science and literature need no longer be kept in leading strings and governed by strangers, however distinguished for their birth or their abilities.

CLINICAL PAPERS.

XVII.—The Diagnosis of Cavities in the Lung.

The physical signs produced by cavities in the apices of the lungs are, probably, the most easily learnt, and most clearly remembered by students, of all the phenomena due to disease in the chest. Certainly they present the most complete departure from the normal physical signs. But it is a remarkable fact that the more advanced in life, and hence in experience, the physician becomes, the more cautious is he in making a positive diagnosis of pulmonary cavities. Other conditions, such as pneumonic consolidation or pleuritic effusion, are not treated with a similar reserve. The reason is simple. In the case of the latter, the physician has been taught by experience that his means of diagnosis generally lead him to the right conclusion; but with respect to excavation of the lung, he, perhaps unconsciously, confesses to himself that, with all his diagnostic skill, his conclusions are sometimes wrong. Symptoms and physical signs which directly indicate a pulmonary cavity may sometimes be produced by other causes, and it is not, therefore, possible to fix upon any single sign or even any distinct combination of signs by which a cavity may be invariably recognised. In the vast majority of cases, however, no sort of uncertainty need exist, but the presence of the cavity is not unfrequently indicated to different physicians by signs to which a different relative importance is attached. It may, therefore, be of interest to pass in review the more frequent indications which are recognisable in these cases, and to attempt to assign to each its relative value. But before proceeding to the examination of physical signs we may enquire what may be gathered from the history and general statements of the patient.

In the antecedent progress of a case of phthisis, the occurrence of sudden and severe hæmorrhage is strongly indicative of the presence of a cavity, but such a cavity may be so small or so deeply situated as to baffle any attempts to discover its whereabouts by means of physical examination. Large and sudden hæmorrhages are produced by the rupture of a diseased blood-vessel in the lung, and pathological experience teaches that such lesions generally take place in or about excavated areas. Prolonged and excessive expectoration, especially when it is of a purulent, nummular, and adhesive character, is also of some diagnostic importance. The occurrence of wasting, dyspnœa, cough, slight hæmoptysis or sweating give no indication of the presence of cavity. They may or may not have been present in the history of a case.

Looking next to the present symptoms as described by the patient, can we fix upon any one point that will guide us to a correct diagnosis? Pain and tenderness may lead us to the seat of the lesion but will not indicate its nature. A dull aching pain referred to one shoulder or to the clavicular region on one side is at times misleading, even as to the locality of the mischief, the signs of disease being present on the side opposite to that in which the pain is felt. With tenderness, however, it will be generally noticed that its area corresponds to the seat and limit of the diseased pulmonary tissues beneath. In such cases it is probable that a more or less acute form of pleuritis is present, or that some violence has been done to pre-existent pleuritic adhesions by excessive coughing or retching. But we gain no information either from pain or tenderness that can be considered in any way diagnostic of a cavity. Are the patient's own sensations of any value whatever in the diagnosis of that condition? Very rarely. A patient is frequently able to point with approximate accuracy to the spot where a large hæmorrhage has taken place, or may sometimes be able to indicate correctly where his profuse purulent expectoration "comes from," but trustworthy subjective indications of a cavity are generally wanting.

From past history and present symptoms, therefore, we gain but little information. It is essentially by means of the familiar routine of physical examination of the chest that the diagnosis must be made. Inspection of the thorax during quiet and forced respiration will, in many cases of cavity, attract the attention towards the locality of the disease but, as in the case of pain, will not afford any real information as to its nature. Doubtless, in a very large number of apex cavities, a certain amount of flattening of the chest walls will be present, or there may even be a considerable degree of absolute concavity of the surface, but these changes may equally attend the conditions of atelectasis, or of fibroid disease of the lungs, or of empyema. The movements of the upper parts of the chest are not less open to misinterpretation. So many influences both from within and without may be combined to alter or modify these movements that in practical diagnosis their abnormality can only be said to give the rather vague indication that "there is something wrong somewhere." Cavities, moreover, are not unfrequently present in cases where the respiratory movements have given no indications of disease.

Palpation can only be made to yield positive evidence of increased or diminished vibration, both of which conditions may be observed over pulmonary cavities under varying circumstances. Turning now to the question of percussion we enter upon a more debatable ground. Few practical physicians will be found to deny that all degrees of note, from boxy resonance to absolute dulness, have been elicited by percussion over pulmonary cavities. It is thus evident that no positive law can be laid down as to the production of resonance or dulness in such cases in any degree akin to that which prevails in the diagnosis of pneumonic consolidation or pleuritic effusion. An attempt has been made, however, to show that the degree of resonance or dulness, whichever it be, that is present over any

pulmonary cavity, may be made to vary by opening and closing the apertures of the patient's mouth and nose during percussion. For the success of this experiment it is necessary that there should be free communication between the cavity in the lung and the upper air passages. To the importance of this condition we shall have occasion to refer again, since it forms the most essential point in the physical diagnosis of cavities. A tympanitic note obtained with the mouth open is said to be rendered deeper when the mouth is closed, and deeper still when the nasal openings are occluded.

To the time honoured but fallacious indications of the "cracked-pot" sound it is hardly necessary to refer. The sound is sometimes present in cases of excavation and at other times it is not. It is met with almost as frequently in cases where no excavation exists. The size and shape of cavities have been at times estimated with more or less precision by means of percussion, but for some undetermined reason it has been the custom in the English schools to keep clear of these refinements, which have been almost exclusively the property of the possibly more cultivated musical ears of our continental brethren.

So far, then, with the exception of the ingenious test above referred to, we do not obtain from the foregoing diagnostic processes any really distinctive indication of the presence of a cavern in the lung. It is to auscultation therefore that we must look to supply the deficiency and to decide the question left unsettled by the other means at our disposal. Here again, however, the diagnosis is beset with difficulty and cases are probably known to most practitioners in which the opinions of careful auscultators have been exactly opposed to one another after very close investigation on both sides. The clue to this divergence of opinion is generally to be found in the fact that the respective examinations have not been made at the same time.

The amount of fluid secretion which is present in a cavity at different times may give rise to great variety in physical signs. But more important even than its relative content is the relation in which the cavity stands to the larger or smaller tubes in the lung. The sounds heard over a cavity during respiration and during speech will be found to vary widely, according to the greater or lesser freedom of communication between the cavern and the bronchi.

The characteristic amphoric breathing is best heard when that communication is most widely open, and in like manner the vibrations of the voice, whether spoken or whispered, will then be most clearly distinguished. For this reason the rule has been established in every clinical text-book and clinical class, that in all cases of suspected cavity, the patients should be made to cough with some degree of force in order to expel, if possible, any plug that might be occluding these broncho-cavernous openings. Granted that typical amphoric breathing is present, have we any means of distinguishing whether the sound is produced at the spot where it is heard or whether, as in the case of solid lung, it is only conveyed hither from some other part? The simplest of all means, viz., direct comparison of the sound with that produced in the patient's own trachea. The habit of systematic auscultation of the trachea is not so widely practised as it might be. The fact is sometimes overlooked that every individual produces a "bronchial breathing," peculiar to himself within the recesses of his own air passages, and that no common standard of pitch or volume of that sound can be set up for universal application. In all cases, before estimating the quality, and hence the diagnostic value, of morbid breath sounds it is essentially necessary to compare them with the healthy sounds produced in the patient's own trachea. In the case of amphoric breathing heard for instance over a relatively dull patch of lung, this is of paramount importance. Experience shows that a most typically amphoric breathing is at times to be heard in the trachea, and may even be greatly modified by the shape or position of the mouth and nares. Such a sound conveyed by consolidated lung tissue may be, and frequently is, erroneously held to be indicative of a dry cavity.

Cavernous and tracheal breathing are both essentially *tubular* in character, but it is only when a marked difference exists between them that the former possess any real diagnostic value. Of the vocal resonance, the same rule holds good to some extent. The old idea that the conveyance of the whispered voice was diagnostic of a cavity has long since died out. It is well known that any laryngeal or labial sounds may be equally well conveyed by consolidated lung tissue. In some cavities, but by no means in all, a marked modification of the voice sounds may be noted on comparing them with those heard over the trachea. There is not, however, any distinctive alteration which is nearly so constant in its occurrence as the amphoric change in the respiratory sounds, and hence the degree and character of the vocal resonance is of far less importance in diagnosis.

Of the truly abnormal sounds which are to be heard in and about cavities in the chest, the most important are those to which the term "metallic" has been happily applied. Without being absolutely diagnostic of pulmonary excavation, they occur so frequently in association with it, that next to the amphoric modification of the tracheal breath sounds, they form the most valuable indication that we possess. It will generally be found that the peculiarly metallic twang which characterises them is to be noted at the same time in the cavernous alteration of the respiratory sounds and also in the augmented vocal resonance.

To sum up the views expressed in the foregoing, it may be said that while pulmonary cavities may at times give rise to alteration of every one of the normal physical signs, there are but very few of these alterations that are not capable of production by other means. Amphoric or cavernous breathing, that is to say, the normal tracheal sounds conveyed to a distance and altered in quality and tone, is the only sign that can be regarded as peculiar to the excavated condition of the lung. The greatest care, however, is necessary before accepting even this sign as absolutely conclusive, and as a general rule it will be found advisable to follow the prudent practice of those experienced auscultators who make no positive diagnosis of a cavity where there is any room for the shadow of a doubt of its existence. B.

REVIEWS AND NOTICES OF BOOKS.

DR. BRIEGER'S RESEARCHES ON PTOMAINES.[1]

In the monograph before us, the author gives the results of a series of observations undertaken by himself with the view of determining the true nature of the so-called group of ptomaines. The work is prefaced by a history of previous efforts in the same direction. To Professor Panum, of Copenhagen, belongs the credit of having first demonstrated the production of a poisonous substance, chemically obtained from decomposing animal tissues. Many experimenters have since succeeded in isolating various substances which have been proved to resemble the vegetable alkaloids in their physiological behaviour. None of these, however, had been obtained in a state of chemical purity, until Nencki extracted from the decomposition of gelatine a ptomaine, which he termed Collidin, in pure and crystalline form. An alkaloidal substance, almost identical with it, was obtained by Gautier and Etard from the decomposing tissues of fish. These two experiments are therefore the only instances that can be quoted with scientific accuracy, since they alone were conducted with scientific precision.

Dr. Brieger's own observations extended over a long period of time, and the success which attended his attempts to obtain the ptomaines is here set down. Following the well-recognised fact that the products of early decomposition of albuminous tissues, as peptone, are endowed with distinct toxic properties, he proceeded to search for ptomaines in the products of the artificial digestion of fibrin. He succeeded in extracting therefrom a poisonous substance in solution, which he was only able to crystallize in vacuo with extreme difficulty. For physiological experiments the solution was manifestly impure, but the results of injection gave evidence that it possessed violent toxic properties. After eight days decomposition this toxic material could not be obtained. By means of check experiments he proved that the poisonous material was not evolved from the gastric juice by which the artificial digestion was carried on. The next series of investigations were made upon decomposing flesh—equine, bovine and human. A crystalline substance was obtained to which the name of Neuridin was given. When in an absolutely pure state it was found to be very soluble in water, insoluble in absolute alcohol, ether, chloroform, amylic alcohol and benzine. It would appear, however, that neuridin is a body which is very widely distributed in all forms of animal tissues, and is therefore liable to a variety of combinations with organic substances, in which these chemical properties would not be present. It is probable that it plays an important part in the processes of tissue change.

The author gives a detailed account of the test reactions with various acids, and of the general chemical properties of the neuridin in its crystalline form, but he has not as yet been able to determine its exact composition. He has ascertained that, in the pure state, it is not poisonous, but when containing organic impurities it resembles peptotoxin in its effects. After complete extraction of this alkaloid, he found, however, that the remaining fluid still retained certain poisonous properties. By means of a process, of which he gives the particulars, he succeeded in isolating the hydrochlorate of a base possessing very marked toxic properties, as proved by experiments upon frogs and small mammals. Its action appeared closely to resemble that of muscarin, and seemed, like it, to be antagonistic to atropin. Both chemically and physiologically, however, he determined that the neuridin and this second base, to which he gives the name of Cholin, are quite distinct.

Investigating the products of the decomposition of fish, he succeeded further in isolating a new base in all respects identical with ethylendiamin, but not in sufficient quantity to enable him to carry out a thorough series of physiological experiments. He was able to establish the fact beyond any doubt that it possessed toxic properties. From the decomposition of cheese, a substance resembling neuridin was obtained. From glue Dr. Brieger succeeded in separating a minute quantity of a material having the properties of muscarin. Particulars are in every case given of the processes employed, and of the experiments made in arriving at the conclusions to which the author is led. The monograph is concluded by a chapter on the genesis of ptomaines, skilfully summing up the extent of modern knowledge upon the subject. As a whole the work must be accepted as a most valuable contribution to the literature of a branch of knowledge which seems destined, at no very distant time, to expand to proportions which may materially modify our present views of normal physiological processes.

[1] Ueber Ptomaine. By Professor Dr. L. Brieger, in Berlin. Hirschwald. 1885.

A NEW HANDBOOK OF GYNÆCOLOGY.[1]

This may be briefly, but we think justly, described as a fairly good book of a very bad kind. It is a book of a class for which we would much rather there were no demand; but there are only too many who think that such books meet their requirements, and are content with them accordingly. If, however, for a moment we may identify ourselves with the class of readers for whom we take it that the volume is intended, we must admit that the execution of the work—except for the evidences of haste which meet us on every page—is highly meritorious. It is a book intended to save students and practitioners the trouble of reading the larger treatises on the diseases of women, and to give them as it were a bird's-eye view of the theory and practice of the present day. It will familiarize students with the appearance of gynæcological instruments and acquaint them superficially with their uses; and enable them to give passable answers to the questions of examiners. It is not a book that throws new light on the subject; and if it supplies information to the student, it does not stimulate him to think. It does not appear to be its object to sift truth from error; nor to mark out the broad highway of proven fact along which scientific medicine advances, from the multitude of by-paths resting on hypothesis, and leading to practical results both bad for the patient and discreditable for the practitioner. But on the other hand it is clearly written and copiously illustrated, and it shows that the author is familiar with contemporary gynæcological literature. It also contains many useful practical hints; and in reading it we cannot but regret that the author should not have chosen, instead of giving us a patchwork representation of the different phases of opinion, to express his own deliberate and independent judgment on the many conflicting doctrines which here lie side by side for the reader to make his choice among them.

In the preface, and in many places throughout the book, Dr. Macnaughton Jones makes most judicious remarks on the evils of specialism, the necessity for a

[1] Practical Manual of Diseases of Women and Uterine Therapeutics, for Students and Practitioners, by H. Macnaughton Jones, M.D., &c., &c., Examiner in Obstetrics, Royal University of Ireland, formerly Professor of Obstetrics in the Queen's University, Ireland, &c., &c. London: Baillère, Tindall and Cox, 1884. Pp. 410.

knowledge of disease as it occurs in every part of the body before undertaking the treatment of those of one set of organs, and the injury done to patients by unnecessary local treatment. But the tendency of these excellent precepts will we fear be largely neutralized by the full descriptions which are given of methods of local treatment to which the general condemnation of the preface largely applies; methods, some of which are by common consent admitted to be useless, and others, if productive of good at all, yet much more limited in their application than the student would think from this and from the works from which Dr. Jones quotes. As an example of the way in which perplexity may well arise in the mind of an intelligent student, we may refer to p. 144, at which Dr. Matthews Duncan is quoted, that "thousands of blooming, happy, fertile women have displacements." This statement, says Dr. Jones, cannot be controverted. He says also that "in a very large percentage of cases any and every pessary fails to give relief and often only creates distress;" that "we are frequently creating an unhealthy state rather than relieving one." After this sweeping condemnation the student comes to 37 pages devoted to the consideration of flexions and versions. Anteflexion is styled "that most troublesome and frequent displacement," and ten different pessaries for its cure are figured. There is no hint that anteflexion may sometimes co-exist with symptoms without being their cause; and the student is left to reconcile for himself Dr. Duncan's views with the necessity for pessaries which appears to be inculcated in the pages which follow. Again, in the chapter on sterility, a list of causes of this condition is given, all but one of them being local. After this the author proceeds first to deprecate operations for the cure of sterility, and then to say that it is "far otherwise when some diseased or abnormal condition of the uterus is present which it is our duty to treat by operation." The student is not told which abnormal conditions (or when) it is his duty to treat by operation. This is an example of the main fault of the book. Sweeping condemnations of unnecessary local treatment go side by side with detailed descriptions of all kinds of interference, to many of which the best specialists would think the author's general denunciations most properly apply, and the student is given no clear guidance to teach him when he should do these things, and when he should not.

On Tumours of the Bladder: Their Nature, Symptoms and Surgical Treatment; by Sir Henry Thompson. London: J. and A. Churchill.—Although a considerable portion of this work has already appeared in the medical journals, still the lectures before us are the first adequate exposition of the author's views on this very important subject. Originally delivered before the College of Surgeons, Sir H. Thompson has added in the present work notes, histories and microscopic drawings and descriptions of the tumours such as could not possibly be given in his oral lectures. The result is an interesting volume which epitomizes the author's latest experience in a department of surgery in which he is *facile princeps*. We must congratulate Messrs. Churchill on the admirable manner in which the microscopical drawings have been reproduced.

Handbook of Midwifery for Midwives: From the Official Handbook of Midwifery for Prussian Midwives; by J. E. Burton, M.R.C.S., L.R.C.P., London, Surgeon to the Hospital for Women, Liverpool. Second edition. London: J. and A. Churchill. Pp. 308.

The Handbook for Midwives; by Henry Fly Smith, M.B. Oxon, M.R.C.S. Eng. Second edition, thoroughly revised. London: Longmans, Green and Co. 1884. Pp. 176.

We have pleasure in calling attention to the second edition of these two useful manuals. For those unacquainted with them we may say that Dr. Burton's volume is a translation of Litzmann's Handbook, and is fuller and more technical than any other work intended for the same purpose; while Dr. Fly Smith's is much less elaborate, is written in simpler language, but contains less information. We notice that both volumes recommend plugging the vagina for uterine hæmorrhage,—a makeshift which conceals hæmorrhage but does not stop it, and in our judgment therefore better omitted than practised. In this remark we think most practical accoucheurs will agree with us.

A Manual of Medical Jurisprudence, with special reference to Diseases and Injuries of the Nervous System; by Allan McLane Hamilton, M.D. London and New York: Bermingham & Co., 1883.—We feel somewhat disposed to quarrel with the author for his title, as the book ought to have been headed "The Medico-Legal Aspects of Injuries and Diseases of the Nervous System," such being the only subjects treated of. The first two chapters are devoted to insanity, then follows a chapter on hysteroid and feigned diseases, and then successively chapters on epilepsy, alcoholism, and suicide, the last two chapters being about cranial and spinal injuries. Although we do not like the style in which the book is written, still it is evident that Dr. Hamilton is speaking from a not inconsiderable experience of the topics with which he deals, and there is a good deal of interesting and useful information embedded in the book. If the redundant matter was removed, such, for instance, as the description of the anatomy of the brain, which is quite unnecessary in a work of this kind, and if not unnecessary would be quite useless in its present crude state, and what remained welded together a little, the value of the book would be immensely increased.

The Human Element in Sex: being a Medical Enquiry into the Relation of Sexual Physiology to Christian Morality; by Dr. Elizabeth Blackwell. Second edition, revised and enlarged: J. and A. Churchill, 1884.—The teaching of this little pamphlet is sound, and, if it can only be brought before those who need enlightenment, is calculated to do good. Hitherto, the great difficulty in dealing with an evil which demands plain speaking, if spoken of at all, has been the instruction of those—ignorant, careless, or even criminal, as the case may be—within whose cognisance the earliest habits of childhood are developed. The evil ignorance and vicious knowledge too common amongst the adolescents of both sexes is traceable, not to the corrupting communications of large schools, but in a great measure to the habits of mind and body acquired in the smaller preparatory schools, and even in the nursery; this is only possible because of the false shame and ignorance which leads parents to prefer that their children should find out for themselves the distinctions between good and evil, without help or warning from their natural protectors. Such a prejudice the book before us may serve to remove. In a revised edition "ova" should not appear (p. 24) as a singular noun. From a physiological anatomist of the present day we scarcely expect the positive statement that in the human male "there is no rudimentary part corresponding to the uterus."

ABSTRACTS AND EXTRACTS.

SURGERY.

The Electrolytic Treatment of Urethral Stricture.—Dr. Dukeman claims (*New York Medical Journal*) that this method excels all others; it is simple and requires no assistants and no anæsthetics; there is no hæmorrhage and no pain; it does not debar the patient from his daily avocations, and the cure is perfect and permanent. A good galvanic battery giving a steady smooth constant current of from ten to fifteen volts is necessary. The urethral instru-

ments used for absorption of the stricture are bougies made of metal and insulated with rubber, except at the point which is an olive-shaped silver bulb. The patient assumes the recumbent position. To the positive pole is attached a sponge electrode moistened with water, and placed in the patient's hand or on his thigh. To the negative pole the insulated electrode bougie is attached, and the instrument should always be inserted into the stricture before connection with the battery is made. It is advisable to begin the operation with a mild current and to increase it by one cell at a time. The bougie must be gently guided, no force should be used, and no pain should be inflicted. Care must be exercised to keep the bougie in line, so that the point will not deviate and make a false passage. An interval of four weeks should elapse between successive sittings; otherwise the slight subacute inflammation which sometimes follows the operation may become aggravated into such a swelling of the mucous membrane as almost to close the urethra, and thus discourage both patient and operator. The surgeon simply introduces the bougie to the seat of stricture and gently holds it there, with its point in the proper direction "while the electricity slowly dissolves the stricture." The time required varies, according to the bulk, kind, and extent of the stricture dealt with, from ten to forty minutes, usually; but in two cases, where a stricture from one-half to three-quarters of an inch in length had to be dealt with, it occupied nearly two hours. As the stricture is partially decomposed, and gradually washed away after each operation, an instrument of about two sizes larger than the calibre of the stricture should be used at each *séance*. Thus, if the stricture admits a number 11 French, a bougie number 13 would be the size of the instrument for electrolysis. In four weeks the decomposed portion of the stricture will be washed away, and it will then, in all probability, admit a number 15, when for the second electrolysis we should use a number 17 French scale, and so on until a cure is completed. Dr. Dukeman asserts that all kinds of urethral stricture can be cured by electrolysis, and after referring to his cases already reported in the medical journals, asks that the method may be given a fair, careful, and impartial trial.

Hot-water Injections in Gonorrhœa.—In the *New York Medical Journal*, Dr. S. C. Gordon relates several cases treated in this manner. Observing the benefit which follows the use of the hot vaginal douche when the mucous membrane and peri-uterine tissues are swollen and engorged with exudation from passive congestion, he was led to employ the same curative agency in cases in which the urethra and its mucous lining present similar conditions. About two quarts of water, as hot as the patient can possibly bear it, are injected at each sitting by a fountain-syringe. By getting the patient to strain a little, as though urinating, the bladder can be repeatedly filled and emptied with great relief to the dysuria. The douche is continued, twice a-day, for a few days as the symptoms indicate. Relief is experienced from the first; chordee is avoided, and the smarting sensation removed; no anodyne is given, and no medicine needed. Dr. Gordon concludes:—(1) Cases seen at the outset may be aborted in from three to five days, by the use of a two-quart douche three or four times daily. (2) In cases which have lasted ten to fourteen days (*i.e.*, when the acute inflammation has subsided), similar treatment will effectually relieve the distressing symptoms in the course of a very few days. (3) When two or three days have elapsed before the patient is seen, careful injections of simple water at about the body-temperature, or less, with the external use of very hot water, promotes cleanliness, acts as a sedative, and does much for the patient's comfort.

Danger of too Early Repetition of Iodine Injections in Hydrocele.—Professor Tillaux drew the attention of his class, at the Beaujon, to the danger of being in too great a hurry in repeating injections of iodine in hydrocele. It is only at the end of six weeks or two months that we can judge of the result of the first injection, and to interfere before this time is to expose oneself to induce the formation in the tunica vaginalis of those false membranes which are so vascular that they bleed on the slightest shock, and thus give rise to hæmatocele and the loss of the testicle.—*Revue de Thérapeutique*, August 14.

Extraction of a Bullet from the Urethra.—Dr. Wilder relates this remarkable case which occurred in the person of a coloured man, æt. 26, in the Cincinnati Hospital. About a year before he suddenly found himself unable to micturate, and since then he had always passed water drop by drop and in great pain. On sounding him a hard body of irregular shape, and supposed to be a stone, was struck, and as it resisted removal by the forceps, this had to be effected by means of an external incision. The body proved to be a leaden bullet about $\frac{42}{100}$ inch calibre, considerably flattened and indented, and nearly covered with urinary salts. It was so embedded in the urethra as to be removed with difficulty. In 1870, the man had received a pistol shot in the groin, and the ball was never found, a small circular scar about an inch below the middle of Poupart's ligament indicating its point of entrance. It would seem that the bladder was not perforated originally by the shot, for no vesical trouble appeared until about a year before the patient's admission. — *Philadelphia Medical News*, September 13.

Treatment of Hæmorrhoids by Forced Digital Dilatation.—In relation to Professor Verneuil's paper on this subject (*Medical Times*, July 19, p. 93), M. Charles Monod, *agrégé professeur*, writing to the *Gazette des Hopitaux*, in warm approval of the views expressed in that paper, observes that treatment by dilatation has now become the habitual practice of the younger surgeons. But he adds that he does not think that we should accept a qualification of the practice that is always observed, and is advocated by Professor Verneuil himself; and that is, in case of gangrene having occurred or being about to take place, the application of dilatation should be deferred, as after the slough has come away the relief of the strangulation of the hæmorrhoids which produced it will occur. The suffering of the patient is of too dreadful a character and a radical cure of such immediate importance, that M. Monod advises that, in spite of this complication, the dilatation should at once be proceeded with; and he relates an important case in which this condition existed in a very aggravated form, producing the most horrible suffering, that no anodynes relieved, and which was instantly remedied by dilatation, the disease being also completely cured at the same time.

Fat Embolism.—Dr. Park, Professor of Surgery, University of Buffalo, reports in the *New York Medical Journal*, August 16, two examples of this and takes an elaborate survey of the literature of the subject. He concludes as follows: "In the light of these and numerous other cases, and of careful experiments and pathological investigations, we are justified in formulating the following conclusions: (1) Fat embolism in varying degrees of severity is not an uncommon complication of surgical accidents and operations. (2) It may be so mild as to be lost sight of in the general condition of shock, or, perhaps, more properly speaking, it is one factor of a condition of prolonged shock. (3) Our knowledge of the subject will be greatly increased when we appreciate the possibilities of its occurrence and observe our cases more closely, watching for the appearance of fat in the urine of slight dyspnœa, &c. (4) When prostration and loss of blood have been great, a moderate amount of embolic disturbance of this kind may serve to turn the scale against a patient who would have otherwise recovered. (5) By a proper understanding of this subject, certain deaths may be explained which otherwise seem inexplicable. (6) Treatment can only be symptomatic, but may accomplish something. (7) Autopsies should be so conducted as to reveal this condition when present."

Plaster Supports.—Yet another mode of applying splints and supports of plaster of Paris is described in a recent number of the *Boston Medical and Surgical Journal*: — Three, four, or five pieces of gauze of the size required are taken, and on these is laid

another piece of the same length but three or four inches wider: these are all stitched together along the middle of their length, so that the seam shall extend up and down the middle of the completed support: cosmoline is rubbed into this seam in as narrow a line as possible; and the layers of gauze are then held up to the part and trimmed to shape if necessary. The plaster being mixed to the consistency of cream, and while an assistant holds the gauze up to the part, the first layer is brought down smoothly and filled with plaster, then the next, and so on until all have been laid and filled with plaster; the edges of the widest layer are then turned over the others, thus forming a binding and a smooth edge. Such a support is light and strong: and when it is necessary to remove it, it may be ripped open along the seam as easily as a piece of cloth.

Surgical Employment of Sub-Carbonate of Iron.—In an article in a recent number of the *Journal de Médecine* of Brussels, Dr. Timmermans calls attention to the great advantages possessed by the sub-carbonate of iron in the treatment of wounds and ulcers, and especially when these last are chronic, as it causes too much pain as long as any inflammation is present. He regards it as efficacious as iodoform, without its disagreeables and dangers. In recent wounds it arrests hæmorrhage and hastens cicatrisation, and recent ulcers due to excoriations or contusions are rapidly healed. After the ulcer has been washed and dried, its surface and edges are covered with a layer of the powder from one to three millimetres in thickness, over which is placed a pledget of charpie or lint, and a bandage. During the first days the dressing is renewed from two to three times a day, according to the amount of discharge. Care must be taken not to allow of accumulations of pus, it being necessary that the iron should be in direct contact with the ulcerated surface.

Surgical Treatment of Stricture of the Œsophagus.—Professor S. W. Gross, from a review of the cases which have been published, arrives (*American Journal of the Medical Sciences*) at the following conclusions:—(1) Two hundred and seven gastrostomies have afforded 61 deaths as the result of the procedure, being a mortality of 29·47 per cent., and had prolonged life for 82 days on an average, at the date of the last reports. (2) Thirty-two œsophagostomies have yielded nineteen deaths, a mortality of 59·39 per cent., with a mean life of 52 days. (3) Nineteen internal œsophagostomies indicate six deaths, or a mortality of 31·57 and an average life of 256 days. (4) Five combined œsophagotomies have resulted in two deaths, a mortality of 40 per cent., and a mean life of 168 days. (5) Five œsophagectomies have afforded three deaths, a mortality of 60 per cent., and an average life of 50 days. (6) Three retrograde divulsions, up to the date of the last reports, show a mean life of 22 days, all having been successful. (7) Hence, 271 examples of operative interference have yielded 91 deaths, or a mortality of 33·58 per cent., and an average prolongation of life of 90 days.

Traumatic Cephalhydrocele.—Dr. Conner read a paper at the American Surgical Association (*American Journal of the Medical Sciences*), founded on two cases of cerebro-spinal fluid after fracture of the skull, and on a consideration of the previously published cases. He terminates it as follows:—(1) Simple fracture of the vault of the skull may give rise to a collection under the scalp of the cerebro-spinal fluid, coming, it may be, only from an opened ventricular cavity. (2) Such traumatic cephalhydrocele may be developed quickly, or only after the lapse of a number of days or even weeks. (3) The condition is one that has been thus far only noticed in young subjects. (4) The accident is quite likely to prove fatal from lepto-meningitis or meningo-encephalitis. (5) Operative interference should be restricted to the removal by aspiration of a limited amount of fluid, and such aspiration should be made only when severe symptoms of pressure have manifested themselves. (6) A similar fluid accumulation may occur after the closure of the external wound of a compound fracture of the vault or of a trephining.

PHARMACOLOGY AND THERAPEUTICS.

Antipyrin.—Dr. Huchard terminates a lecture on the Therapeutics of the new antipyretic, Antipyrin, which he delivered at the Hôpital Bichat (*Union Médicale*, November 29 and December 6), with these conclusions:—(1) Antipyrin constitutes a powerful and certain means of lowering the temperature in almost all febrile diseases, as typhoid fever, pulmonary phthisis, pneumonia, pleurisy, acute articular rheumatism and cerebral rheumatism, angiocholitis, erysipelas, diphtheria, puerperal fever, scarlatina, phlegmon, abscess, &c. It mitigates the symptoms which are due to the pyrexia, acceleration of the pulse and respiration, dryness of the mouth, &c., but it does not seem to possess any *direct* action on the respiration and circulation. (2) It is an antipyretic, but not an antiperiodic, whence its inefficacy in intermittent fevers as a *preventive* of the paroxysms. (3) Its administration only gives rise to slight and occasional complications, such as moderate sweating, pharyngeal constriction, slight nausea or vomiting, and in some relatively rare cases to a rubeoliform or scarlatiniform eruption. No tendency to collapse is produced, nor any intoxication such as is caused by preparations of cinchona and salicylic acid. (4) Numerous observations have demonstrated that it constitutes a powerful, and up to the present time the sole, means of efficaciously lowering the temperature in tuberculous subjects. After a dose of two grammes, administered especially in the evening at the time of the recurrence of fever, the temperature falls half a degree centigrade, by the end of half an hour and sometimes after a quarter of an hour. It then diminishes progressively, until the normal temperature is attained in an hour-and-a-half or two hours. It is, however, sometimes necessary to prescribe an hour or two later another dose of one or two grammes; but in phthisical subjects it, in consequence of the very certainty of its actions, and with the aim of avoiding accidents that may be induced by hypothermia, should only be administered in small and increasing doses, as from two to four grains. (5) The antithermic effect is ordinarily maintained in these patients for from six to nine hours, and is sometimes perceptible on the following day, during which the temperature does not regain its previous height. The subsequent rise of temperature takes place progressively, resembling in that the course of the defervescence. It is never sudden, as with kairin, and is never accompanied, like the latter substance, with more or less prolonged shivering. (6) It is eliminated in the urine, in which its presence is recognised two to four hours after its administration during a period of from 30 to 48 hours. Some drops of perchloride of iron poured into urine of patients taking this medicine immediately produces a highly characteristic red colour. (7) Dr. Huchard cannot speak from his own experience as to its effects in typhoid fever; but he is disposed to regard the doses of from six to eight grammes per diem, recommended by various observers, as excessive, as in several of the cases in which they had been employed a condition of hypothermia has been induced, the temperature falling to 35° or 36° C. In typhoid fever, also, the temperature, after having been lowered, will about the fifth or sixth day rise again a degree centigrade for about an hour, after which time it resumes its regularly descending progress. Dr. Huchard has also noted the same temporary ascent of the temperature during the apyrexia, due to action of antipyrin on the fever of phthisis.

Apocynum Cannabinum.—Canadian or American-Indian hemp bark has a very persistent bitter taste, and contains tannin and gallic acid. It is sometimes emetic and causes diaphoresis, and is cathartic, like jalap. It promotes expectoration, also drowsiness, increases urinary secretion and diminishes the force and frequency of the pulse, like aconite or digitalis. It is most used in dropsy, and as a tonic and alterative in dyspepsia. Dose of powdered root 5 grains as an anti-periodic, 20 grains as an emetic. Decoction of ʒ j to O j ss water and boiled down to a pint—a wine-glassful three times a day as a diuretic, or ʒ j of the bark of the root in ʒ viii of water, half an ounce every six or eight hours. This is one of those remedies that should

always be thought of in obstinate cases of cardiac or hepatic dropsy. Its diuretic action is frequently prompt and even extraordinary. It is, however, so disagreeable in taste to some persons that they cannot be induced to take it. A large addition of chinaphila or winter green, aids its diuretic powers and improves its taste.—*New York Medical Record.*

Hypodermic Medication.—Dr. Moriee, at the meeting of the French Association, read a paper, recommending hypodermic injections as the best mode of administering various remedies when we wish to produce a rapid general action, or limit the action of the substance employed to a given point. He cites some cases of obstinate intermittent, in which the patients had taken ineffectually large doses of quinine, but were relieved by small injections (10 centigrammes) of sulphate, sulpho-vinate or bromhydrate of quinine. He also recommends injections of ergotine, peptonates of iron, and mercury, these substances being thus absorbed more easily than when swallowed. For the treatment of neuralgias, and sciatica among others, Dr. Morice has found injections of salt and water (one or two per cent.) useful; or in severe cases injections of alcohol, ether, or nitrate of silver (one-fifth to one-tenth) should be employed. These irritant injections act as minute blisters or moxas, and may induce small abscesses, which are of no consequence. The injection should be stronger in proportion as it is made nearer to nervous centres. For injections intended for rapid and general action the solution should be perfectly neutral.—*Gazette Hebd.*, September 12.

The Chloride of Gold and Sodium.—Dr. Roberts Bartholow has lately been vaunting the use of the double chloride of gold and sodium (*New York Medical News*, August 2). He has studied its alterant effects, its actions on the nervous system, and on the genito-urinary system. He advises the use of one-twentieth of a grain twice or three times a day, and he states that under its use considerable improvement may be seen in cases of posterior spinal sclerosis and chronic interstitial nephritis. Hypochondriasis, coincident with the onset of degenerative changes in the cerebral vessels, and certain affections characterised by spasm, as asthma, laryngismus stridulus, and singultus, are also benefited by its employment. He also speaks highly of its efficacy in cases of sexual debility, accompanied by hypochondriasis, in dysmenorrhœa with scanty menstruation, and in chronic metritis.

Decisive Employment of Important Remedies.—In describing a case of purpura hæmorrhagica, occurring in a little girl, which was combated successfully by large doses of quinine administered in enemata, Professor Thiry, of the St. Pierre, Brussels, took occasion to repeat a proposition of which he had frequently had occasion to point out the extreme importance in relation to the employment of active remedies in severe diseases. "Whenever," he said, "you have been able to establish your diagnosis with certainty, and that the indications demand the employment of quinine or any other heroic remedy, act promptly and without hesitation, and if the disease resist oppose to it persistence in the remedy. It is in this way alone that you will carry off victories, unknown to those who, not possessing any convictions, invoke the intervention of a whole crowd of various remedies, to which, in most cases, they do not give sufficient time to produce their salutary effects, even when they are able to produce such."—*Presse Méd. Belge.*

Chloral Hydrate as a Vesicant.—Powdered chloral sprinkled on adhesive plaster, and melted by a gentle heat (not more than enough to cause the plaster to adhere) is applied while warm to the part. Within a few minutes a gentle warmth is felt, increasing for a short time and then gradually easing off, so that at the end of ten minutes all pain has ceased. As soon as it has ceased the plaster is removed, and a surface is disclosed as effectually blistered as by cantharides after six hours. Thus in about ten minutes the work of an ordinary blister is accomplished with the advantages over this of rapidity of action, ease of application, and the non-occurrence of strangury. The plaster may also be left on without dressing until it comes off of itself.—Dr. Fauntleroy in *Southern Clinic.*

Datura Stramonium in Painful Affections of the Joints.—Dr. Wyman, Professor of Physiology at the Michigan College of Medicine, states that for several years past he has been in the habit of applying green leaves of the datura stramonium to joints suffering from pain from various causes, and that the results have been most satisfactory. The joint is wrapped in the leaves during a period of 24 hours, when fresh leaves are applied. All that seems necessary is to invest the inflamed joint with a layer of leaves thick enough to shut out the air and prevent surface evaporation. Profuse perspiration from the skin of the part follows, and pain and swelling usually vanish. When the leaves could not be got, stramonium ointment proved no substitute.—*New York Medical Journal*, September 20th.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 9, 1884.

Dr. Overend Priestley, Vice-President, in the Chair.

On the Distribution of the Tubercle Bacilli in the Lesions of Phthisis.

Dr. Percy Kidd communicated a paper on this subject based upon an examination of 80 cases. These included two cases of malignant disease of the lung, two cases of sacculated bronchiectasis, and one case of dysenteric ulceration of the intestine. With these exceptions all the cases were described as "tuberculous." In more than half the cases the lung was examined, in twelve cases the larynx or trachea, in thirteen the intestine, and in thirteen lymphatic glands. Various other parts were examined in a few instances. With regard to the lung, the object kept in view was to examine the various lesions comprised in the phthisical process, and to ascertain their connections with the development of the tubercle bacilli. These bacilli were invariably found in pulmonary cavities, and in nearly all cases in softening caseous material, provided that the morbid process was associated with a tuberculous affection. On the other hand, the fœtid-cavity contents in two cases of sacculated bronchiectasis contained numerous micrococci, but no tubercle bacilli. In most instances these bacilli were detected in the nodular lesions of phthisis, though their number was almost always small, whereas in the three cases of acute miliary tuberculosis examined they were in many nodules very abundant. He thought it probable that in all cases, whether of acute miliary tuberculosis or phthisis, some stage of the growth of the nodules was associated with the presence of these micro-organisms. The distribution of the bacilli in the so-called caseous pneumonia appeared to be very irregular. Generally speaking, where the caseation was uniform and firm no bacilli could be found. But where the caseous process was commencing, or where softening was going on and microscopical cavities were present, bacilli were often seen in great numbers. Where the caseation was recent, bacilli were usually scattered among the caseating epithelioid cells, whereas in the later stages they were more often collected in groups, and their distribution was very circumscribed. In this as well as in the nodular form the bacilli were usually situated in the caseating alveoli, more rarely in the alveolar walls. Both in the nodular and caseous pneumonic forms bacilli were often found in the infiltrated walls of the small bronchi. Where fibroid induration was pronounced no bacilli were found. Their presence or absence in caseous material seemed to depend mainly on its age. The older the caseation the less chance that bacilli would be present, unless softening took place, when their appearance was certain sooner or later. It seemed probable, as Koch suggested, that the spores of the bacilli might lie dormant for a very long time, and when suitable conditions were provided

the spores developed into mature bacilli. In the larynx, intestine, and lymphatic glands the presence of the bacilli seemed to depend on similar conditions. The fact that the same micro-organisms were found in tuberculous disease of such remote parts as the pia mater, peritonæum, lung, intestinal and genito-urinary tracts, showed that their association with tuberculosis could be no accident.

Dr. CREIGHTON considered the paper a very good one; any paper which recorded a careful microscopical examination of 80 cases involved a great amount of labour, yet it neither added to, nor took away from, Koch's own arguments and the conclusions at which he had arrived. The bacilli were most numerous in the walls of the cavities, and in the moist secretions; while in glands which were undergoing dry necrobiotic changes, these bacilli were least numerous. Rod-shaped organisms were present, he said, in all the granulomata. He criticised some of Koch's methods of separate culture.

Dr. THEODORE WILLIAMS thought that Koch had not arrived at quite the same conclusions as Dr. Kidd with regard to the giant cells, and he enquired whether Dr. Kidd had observed how these giant cells were destroyed by the bacilli?

Mr. J. B. SUTTON remarked that the "giant cell" was a well-known histological puzzle; its connection with tubercle bacilli added a further interest to its significance. In sections of tubercle, this cell, when present, frequently contained bacilli; and in the lesions found in the liver of birds affected with the so-called "avian tuberculosis," the giant cell was a very frequent constituent, and always crammed with bacilli. A little inhabitant of our ponds and ditches, known as the "water flea" or daphnia, was covered with a thin transparent shell through which it was possible to watch all the movements of the heart, intestines, &c. When living in stagnant water this shell often became coated with a fungus, which was evidently an annoyance, for the daphnia rid itself of the enemy by casting its shell. Dr. Elias Metschnikoff, of Odessa, had made some interesting observations on a singular spore-disease which attacked some daphnia kept in his aquarium. The blood corpuscles of this insect, like those of other invertebrates, were colourless and moved about in lacunar spaces. When these spores gained entrance into the tissues of the daphnia, the corpuscles attacked them and digested the spores; but if a spore was too much for one cell, two, three, or more assisted and *fused to form a giant cell* and repel the invaders. It thus became a combat between the blood cells and spores. If the cells conquered the spores, the daphnia lived; but if the invaders conquered, then the daphnia, over-run with spores, died. This question was interesting, he said, for it seemed to afford evidence in support of the notion that the giant cell, in its relation to bacilli, was an attempt on the part of the organism to rid the tissues of a parasite inimical to the animal whose body they infested.

Sir ANDREW CLARK congratulated the author on his honest and cautious work. He could not quite accept the idea that the presence of the bacilli accounted for the entire phenomena of phthisis: even the anatomical side was not perfect; while as to the clinical, the phenomena were quite inexplicable when we tried to account for them by the bacillus. He asked what was meant by phthisis, and then gave his own definition: that assemblage and progress of symptoms associated with or dependent upon the ulcerative or suppurative destruction of more or less circumscribed, non-malignant deposits in the lungs. There was a condition of chronic ulcerative interstitial—or fibroid—lung which ulcerated and gave symptoms not distinguishable from phthisis, but in which, nevertheless, there were no bacilli. Again, in a few cases of general tuberculosis, bacilli, according to his experience, could not be found. On the other hand, in a certain number of cases of caseous pneumonia, with a life history quite unlike that of phthisis bacilli might be found. He contended that the criteria of a disease were found in the life history, and not in the anatomical characters; the disease was a series of conditions alternating, influencing, surrounding each other, hence he was unable to admit a causal connection between them and the bacilli.

The discussion was adjourned until the next meeting of the Society.

SOCIETY OF MEDICAL OFFICERS OF HEALTH

FRIDAY, NOV. 21ST, 1884.

Dr. T. O. DUDFIELD, President, in the Chair.

The Supervision of Offensive Trades.

MR. ALFRED SPENCER read a paper on the Supervision of Offensive Trades, the number of which had, he said, greatly increased of late through the introduction of processes for the utilisation of materials formerly looked on as refuse or waste; and he could see no reason why legislation which had, in the case of some, proved of the greatest benefit to the public, while inflicting no injury on the industries themselves, should not be extended to others no less offensive but as yet exempted from all interference. The first legislative restrictions, so far as London was concerned, were contained in the Metropolitan Building Act of 1844, of which the 55th section provided, with regard to the trades of a blood-boiler, tribe-boiler, bone-boiler, fellmonger, tallow-melter, soap-boiler, slaughterer of cattle, sheep, or horses, and "*any other like business offensive or noxious*," that it should be unlawful *hereafter* to erect any dwelling within fifty feet of a building used for such purpose, or to carry on such business within the same distance from a dwelling, or forty feet from a public way. And as to existing buildings, it should become unlawful to carry on these trades within the prescribed distances "after the expiration of thirty years from the passing of the act "*except as hereafter provided.*" During the thirty years 1844–74 these provisions were rarely if ever enforced, and had they not been repealed they would have remained a dead letter from the complexity of the saving clauses and the amount of litigation that any attempt to carry out proceedings would have involved. But as the expiration of the thirty years of grace drew near the manufacturers sought and obtained the appointment of a committee of the House of Commons to "consider the operation of Clauses 55 and 56 of Act 7 and 8 Vict., cap. 84, and the best means of making provision concerning the offensive and noxious trades therein specified." The Committee recommended the repeal of these clauses, and the substitution of stringent rules and frequent inspection. The Government of the day took no action in the matter, but in 1874 a Bill introduced by a private member, and embodying the recommendations of the Committee, became law, as the "Slaughterhouses, &c. (Metropolis) Act, 1874." It repealed the clauses in question only so far as concerned the business of a soap-boiler, tallow-melter, knacker, fellmonger, tripe-boiler, and slaughterer of cattle; absolutely prohibiting the establishment in the future of those of a blood-boiler, bone-boiler, manure manufacturer, soap-boiler, tallow-melter, or knacker within the metropolis, but permitting those of a fellmonger, tripe boiler, or cattle slaughterer, "or any other business which the local authority may declare, by order confirmed by the Local Government Board, to be an offensive business," provided the sanction of the local authority had been formally obtained. It also provided for the enactment by the local authority of regulations for the conduct of these trades. There were at that time 1,429 licensed slaughterhouses, and about 200 other premises in which other offensive trades were carried on. By the exercise of extreme caution in granting new licences and the refusal to renew existing ones when the surroundings were unsatisfactory, the number of slaughterhouses had been reduced to about 800; but the bringing of new industries under the bye-laws had increased that of other offensive trades. To do so, however, the business must be *ejusdem generis* with those named in the Act, all of which, with one exception, were concerned with the utilisation of the skins, bones, fat, blood, or offal of slaughtered animals, the single exception being that of manure manufacturers, who *may* employ other materials exclusively or in part. Very few complaints had been made of late in respect of slaughterhouses, though neither they nor the bye-laws regulating them were all that might be desired. The next group of trades included those of leather tanning, fellmongering, glue and size making, which were chiefly carried on in Bermondsey, Southwark, and at Belle Isle in Islington, and

it was highly desirable that these should be aggregated as were the leather works in Bermondsey, where the neighbouring population were so identified with these industries that so long as the public health was unaffected they could not be felt as nuisances. A third group comprised blood-boiling, bone-boiling, manure manufacture, soap-boiling, and tallow-melting. The bye-laws in respect of these did not attempt to deal with the conduct of the business in detail, but only provided in general terms for the storage of offensive matters, and the carrying out of offensive processes in such a manner that no effluvia should escape into the surrounding air. Blood-boiling was, in London at any rate, practically obsolete, being superseded by better processes, but bone-boiling was an important industry often carried on in connection with soap-boiling, &c. It consisted in the collection of bones fresh and stale from butchers, knackers, marine store dealers, &c., which, after the shafts of the long bones that were available for turnery had been trimmed by a steam saw and set aside, were crushed in a mill and boiled to extract the fat. The crushed bones, until taken away by manure manufacturers and others, were usually stored in pits called bone holes. The boiling of more or less putrid bones was frequently productive of sickening odours, but the effluvia from the bone holes were especially offensive and pungent. Too often the buildings were ill-arranged and unsuitable, but there was no doubt that the nuisance could be minimised by the processes being conducted in a set of closed chambers, with a single door, and an exhausting shaft at the opposite end of the series. The effluvia might then be condensed, washed, and finally passed through a furnace. (Mr. Spencer here described somewhat fuller the arrangements he would suggest.) The manufacture of manure included a variety of processes from the mere mixing of fish offal with absorbents to the treatment of the same together with coprolites and other mineral matters with strong sulphuric acid. The latter, commonly known as the manufacture of superphosphates, was a most offensive process, but the work was mostly carried on outside of the metropolitan area, on the banks of the Thames. On account of the technical character and complexity of these processes the Board issued a number of suggestions illustrated with drawings of apparatus for the better regulation of the manufacture. These suggestions having been adopted and circulated by the Association of Artificial Manure Manufacturers had been productive of good elsewhere than in the metropolis. The manufacture of soap had of late undergone such improvement that it could scarcely be looked on any longer as an offensive trade. This, however, could not be said of tallow melting and gut-scraping, in which the guts were purposely kept until putrid, that the mucous membrane might be the more easily separated, and though some improvements had been made, gut scraping was without exception the most abominable of all. It was of the highest importance that the inspector should be able to acquire an insight into the practical working of all the manufactures with which he was brought in contact, that his suggestions might be listened to with attention and respect, and it was the practice of the inspectors under the Board to meet periodically for interchange of ideas, and to acquaint themselves with the latest improvements as well as to ensure uniformity of procedure. If they could thus speak with the authority that comes from knowledge, and at the same time exercise judgment and tact, they would find that they were generally received as friends and advisers, and their visits looked forward to with pleasure. It was highly important to convince the manufacturers that the improvements by which the nuisances were abated would nearly always prove sources of additional profit, in short, would pay; and, not less, to gain the goodwill and confidence of the workmen. But the inspections to be of use must be made at all and often unexpected times, Sundays and nights not excepted. Judicious enquiries must be made of the neighbouring householders, and is was often very difficult to trace a nuisance to its true source, or to hit on the moment of its occurrence. In 1876–7 a Royal Commission was appointed to consider the case of manufactures giving off noxious vapours other than those they had been considering. Evidence was taken respecting a large number, but the only result was the Alkali, &c., Works Act of 1881, which regulated also sulphuric acid, gas liquor, nitric acid, and sulphate and chloride of ammonia works. It was, however, administered by the inspectors of the Local Government Board, so that the Board of Works had no jurisdiction here. A very general nuisance, and one from which nearly every suburban district suffered, was that of ballast burning and brick-making, the offensive odours being given off in the combustion of the dustbin refuse used as fuel, which contained much organic matter. It was not at present under any legal supervision, and the nuisance in question was inseparable from the process of burning in clumps, employed in the manufacture of cheap stock bricks. The kiln process used for making hard red bricks was more costly, requiring coal, but was free from all objection, carbonic acid and water vapour alone being given off.

A long and lively discussion, in which Drs. Dudfield, Corfield, Kelly, Iliff, Bate, Gwyn, and Saunders, Messrs. Murphy, Lovett, and Rogers took part, followed the reading of the paper, and Mr. Spencer replied at some length. Dr. Iliff's account of the utilisation of manure and street refuse by the Vestry of Newington was considered of such interest that he was requested to furnish the Society with a more detailed account of the methods adopted.

OBITUARY.

DANIEL JOHN DUIGAN, C.B., M.D.

DEPUTY INSPECTOR GENERAL OF HOSPITALS AND FLEETS.

AN old friend and comrade of this well-known Crimean medical hero has sent us the following notice of him :—Dr. Daniel John Duigan, C.B., Deputy Inspector General of Hospitals and Fleets, on the retired list, died on the 2nd of December at 63 years of age. He belonged to an old and much respected family in Kilkenny, was educated in Dublin and became F.R.C.S.I., M.D. of Aberdeen, and M.R.C.P.L. He entered the naval service in 1844, was employed for a year at Haslar Hospital, after which he served for seven years in the Mediterranean, in the *Hibernia* and *Queen*, flagships of Admiral Sir William Parker, G.C.B. In December 1853 he was appointed to the *Royal George*, whence he was transferred in April 1854 to the *Duke of Wellington*, and was engaged in the Baltic, in the operations at Bomarsund during the Russian War, being in all the most important boat operations by night and day, as well as in the assaults on batteries, in which his conduct gained the approval of Sir H. Jones, the Commanding Engineer. On returning to England he was ordered to join the Naval Brigade before Sebastopol and to take passage in the *Prince*; he escaped the dreadful fate of his fellow passengers by his alacrity in proceeding asbore to his appointment immediately the *Prince* arrived at Balaclava, on the eve of the total wreck and disappearance of the ship. Through the terrible winter, 1854-55, he served in the camp of the Royal Naval Brigade as surgeon-in-charge of its 2nd division hospital. On the return of spring, with the re-opening of the bombardment, he volunteered for service in the batteries and trenches, being the only officer of his rank, on leaving England, who was in that position ; from that time until the fall of Sebastopol, on the 8th of September, he was present in the batteries on the opening day of every one of the three great bombardments. On that of the fatal 10th of June, being confined to his tent by a severe attack of camp fever, he rose from his bed and proceeded at dawn to his proper post in the Diamond battery, under Sir William Peel's command, whose admiration he excited for his steady attention to the many sufferers during that eventful day, so far that his valuable services being recorded by that most distinguished officer, were approved of by the Commander of the Naval Brigade, Sir Stephen Lushington. His valour was equally conspicuous on the closing day of the siege—in fact, it may be said he was ever on the alert to be present at the point of danger, and was never behind time there. For these services he obtained the Sebastopol medal with

clasp, the fifth class of the Order of the Medjidie, the Sardinian and Turkish medals, and lastly, the decoration of Companion of the Order of the Bath, He subsequently served for two years in the *Vulture* in the Mediterranean from 1858 to 1860; in the *Mersey* on the North American and West Indian Station from 1860 to 1862; at Jamaica Naval Hospital for five years, 1862 to 1867; he was employed with the Royal Marines at Deal from May 1867 to July 1870, and in the *Agincourt* from August 1872 to February 1874, when he was appointed to Devonport dockyard, which appointment he held until he was placed on the retired list, with the honorary rank of Deputy Inspector General, in April 1876. Always exemplary for his kind, gentle, courteous demeanour to all around him, for his unswerving zeal and attention to his duties, and for his oft-repeated acts of self-denial, he was esteemed by his nearest friends and companions in arms as a gentleman and officer in a classical sense truly—*factus ad unguem.*

GENERAL CORRESPONDENCE.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

[To the Editor of the Medical Times.]

Sir,—Allow me to make a correction and a comment with reference to the letter of Mr. Roberts on this subject in your last issue.

(1) Mr. Roberts says that I "fall into the error of attributing to the schoolmaster the duties of making the necessary exemptions, and of believing that Mr. Fitch has done the same in his memorandum." This is in no wise the case. I simply took the facts as I found them; and *quoting* Mr. Fitch, who said that on a visit to schools containing 40,000 children the exceptions desired by the managers and teachers had been almost always freely sanctioned, I proceeded to show that the principle on which these exceptions are generally made is *no safety valve* against over-pressure in the medical sense; but is based generally on the *teacher's* views of the improbability of the children passing the examinations. It will not be denied that though the managers may have to sanction the exceptions, the schoolmaster practically suggests them. For this purpose the managers might just as well be non-existent.

(2) Mr. Roberts considers that my contention that the schoolmaster's exceptions do not remove the danger of over-pressure, upsets Dr. Crichton Browne's position as well as that of Mr. Fitch. This is an erroneous inference. Dr. Browne's report does not rest for its main support on what the teachers think or say, but on independent observations; and though Dr. Browne may be of opinion that some dull children are injured by the code, and some clever ones even kept back by it, he nowhere implies that the teachers' view of over-pressure is coterminous with his own, or that no clever children can be overpressed. There is no real *contradiction* between my statements of what I have observed, and Dr. Browne's general views.

It is somewhat difficult to understand Mr. Roberts' position from his rather pointless and hair-splitting letter on this matter; but he practically concedes that the present system in no way provides for any adequate carrying out of the exemption clause of the Education Code. This is exactly what I have endeavoured to show. And, as to Mr. Roberts' warning that the question of over-pressure is a complicated and difficult one, all your readers will remember that this point has been prominently and repeatedly emphasized by yourself and by some of your correspondents, no less than the necessity of some kind of medical inspection should an earnest and impartial and not wholly medical inquiry prove that the *primâ facie* case of over-pressure made out by Dr. Crichton Browne is a real evil that can be practically dealt with by such means.

I am, Sir, Yours, &c.
H. B. DONKIN.

HINTS AS TO PROFESSIONAL CONDUCT.

[To the Editor of the Medical Times.]

Sir,—I hope you have read with as much appreciation as I have the article in last week's *Lancet* on doctors and their female patients. To my mind the writer—and we ought to be grateful for enjoying the services of so faithful and outspoken a mentor—only commits one fault, and that is a fault of omission. He is too vague, and fails to give advice on many little points of professional conduct on which, I am sure, advice is much needed by our junior practitioners. There are many young doctors now entering upon practice who, never having passed through an apprenticeship like their predecessors, have no idea, and no one to advise them, how to comport themselves when they visit a well-to-do patient, for as the *Lancet* justly observes, there is (or ought to be) all the difference in the world between a professional visit and an afternoon call. May I, therefore, trespass on your space a little, while from the experience of a long and varied life, against which never an aspersion has been breathed, I supplement the incomplete counsel of your contemporary. If all practitioners would bear my advice and that of the *Lancet* in mind, the profession, I am sure, would never have to sigh over those unfortunate cases which have been of late so frequent. Without further parley, then, let me state that danger begins on the doorstep. How shall the young practitioner announce himself? In a good neighbourhood he sees before him two bells, marked "visitors" and "servants," and a knocker. He has thus, I calculate, according to the theory of combinations, seven ways of announcing himself; which is it proper for him to choose? My own practice has been to ring the visitors' bell gently, though even that, when calling to see one of the servants, has seemed to me to savour of impropriety. But whatever course the young doctor may choose, let him, above all things, beware of using the knocker. That would imply a familiarity with the family, the very suspicion of which it behoves the circumspect practitioner to avoid. So long as he confines his manipulations to the bell handle he is safe. The next problem that confronts him is, what to do with his hat. Following the custom of other men who have business in the house, he should by rights leave it in the hall, not on the floor, but on the hall table. This course, however, may involve him in serious danger. If there are children about the house, they may be counted upon to play with it, perhaps to march into the drawing room with it on their heads—a complication which, I need hardly say, as being evidence of undue familiarity, would be of the gravest import. My own plan has always been to take my hat with me, and only to relinquish it when the clinical investigation of a case rendered such a course absolutely necessary. Familiarity is impossible so long as the hand keeps touch of the beaver. It is an almost impregnable rampart, and would take the sting out of anything that tale-bearing domestics might say hereafter. The ethics and etiquette of hand-shaking form a most difficult subject. As a rule, I agree with the *Lancet* that it is best to avoid it. If a lady of title offers two jewelled fingers, the young practitioner would be at once foolish and rude to decline to take them, but the touch should be cold and momentary. With the wives of commoners it will be best, if it can be done without obvious rudeness, to bow formally, instead of offering to shake hands, both on entering and leaving. It is in the nursery that the greatest circumspection is required. It is a very common occurrence for young infants, not yet skilled in the differentiation of the members of a sex of which they see but little, to greet the young doctor by a title to which he can have no claim. What is the poor unprotected practitioner to do? In my opinion, he should at once assume a dignified deportment, and gravely expostulate with the young offender; otherwise his silence may be misconstrued, possibly to his serious disadvantage. There are many more hints I should like to give, but I fear that I have already trespassed too far upon your space.

I am, Sir, yours, &c.,
A PRACTITIONER
Of Fifty-one Years' Standing.

MEDICAL CONSULTATIONS.

No. V.—REFLEX THERAPEUTICS.

SCENE—*A library in South Kensington.*

DRAMATIS PERSONÆ.

M.D., OXON.—*A physician of the old school.*
M.R.C.P.—*A physician of a new school.*
L.R.C.P.—*A general practitioner of no school in particular.*[1]

M.D., OXON. And what have you been doing for the poor girl?

L.R.C.P. What is there to do? We have fed her, kept her warm, and done our best to relieve individual symptoms. She implored us to stop her night sweats, and by M.R.C.P.'s advice I gave her atropine. It acted like a charm, but the cough got worse and diarrhœa set in. So we were driven to opium. Then the sweats came back worse than ever, and we again resorted to atropine, then back to opium, and so on; the one drug always bringing back the night sweats, and the other the diarrhœa.

M.R.C.P. I admit the sequence, but not the consequence. Our friend is too ready to jump from the *post* to the *propter*.

M.D., OXON. Strange! Usually we doctors are more prone to make the jump when the sequence of events is favourable. We leave the converse to our patients.

M.R.C.P. We should be most cautious in avoiding either. Here, no doubt, the opium increased the perspiration, but I want clearer evidence to prove that the atropine brought on the diarrhœa or the cough. My explanation of the facts is this. You stop her night sweats, and she wakes feeling much better, or, as she herself aptly puts it, much less washed out; she eats more heartily in consequence, and with her vulnerable mucous membrane of course gets diarrhœa. The atropine again gives her a comfortable night, and her increased cough simply means that she has to make up for lost time in getting rid of her secretion. I have given atropine in hundreds of these cases, and never knew it increased the other troubles.

M.D., OXON. I regret to say that my experience is different, in respect not only to atropine, but to most other drugs given to relieve a special symptom. We are on ticklish ground, remember, when we lose sight of the general indications, and are driven to treat particular phenomena. How can you or I tell what is the meaning of this or that symptom, or what amount of harm our gratuitous tampering with one wheel in the delicate clockwork of a human body may do to the remainder? See what the poor untutored layman does! He feels overwrought, sick, miserable, and instead of asking himself what has caused it—has he worked, has he eaten, has he slept too much?—flies at once to the remedy which he knows will remove his trouble—alcohol; till, with repetition, his act becomes an almost unconscious habit, a secondary automatic, in one word, a reflex phenomenon. I am disposed to believe that there is a good deal of this reflex prescribing amongst the new school of therapeutists.

M.R.C.P. You are somewhat hard on us. Yes, I am proud to admit that I am of the new school. We may fall into errors, we may ride our hobby now and then too far, but when you consider that the treatment of disease remained absolutely stationary for centuries, and only began to advance when the new school came in—that within the few short years that it has been at work it has discovered and forced into general use nitrite of amyl, nitro-glycerine, salicin, pilocarpine, apomorphia, kairin,—and, greatest triumph of all, cocaine—you must admit that it has some claim to your consideration.

M.D., OXON. Stay, you mistake me. I have the greatest respect for those who are studying drugs scientifically. I am afraid I am too old myself to be likely to see the practical result of their work. But they are finding out *facts*, and facts are always worthy of reverence. It may never be of much practical service to know that this drug lowers the blood-pressure, and that one sets the sweat glands to work; but each is after all a scientific fact, and as such I bow to it. What I protest against is the hasty and inconsiderate use of such facts on the patients who are committed to our care. It is not sufficiently borne in mind, I think, that the knowledge and power of disposing of these potencies doubles the responsibility of the practitioner.

M.R.C.P. Granted; but is it right to shuffle off responsibility, as the expectant physician does, by believing in nothing and doing nothing? From my standpoint that would be assuming responsibility—a terrible responsibility—not getting rid of it.

M.D., OXON. I repudiate the title of "expectant" physician, unless by it you mean that I expect more of nature than you perhaps do. I am quite prepared to treat urgent symptoms—pain especially—when there is clear need of it. Practically, I doubt if there is much difference between your prescriptions and mine, and I should be sorry if you were to think that my strictures were aimed at you. You, of course, who have worked at the subject, do not prescribe thoughtlessly; with full knowledge you weigh the case, you consider the indications, the *juvantia* and *lædentia*, you seek out and try to remove the cause, you act in a word in every way as a philosophical physician should do, and if you see that symptoms must be treated, you treat them with one of the many agents that the researches of yourself and others have placed in your hands; but never, I take it, do you forget that in treating a symptom you are not treating the disease. No, my remarks were aimed at the credulous, indolent and ignorant followers of your school. Here lies the danger. Every case that comes before you, properly advised, means thought, an active expenditure of nerve force, a going-out of virtue from you. As human nature is constituted it must often happen that such an effort will be unpleasant—an effort to be avoided. Now, your new school has provided us with a number of short cuts, royal roads whereby we may satisfy our consciences that we are reaching our goal, that goal being not seldom the satisfaction of the patient, the alleviation of his symptoms, the capturing his confidence by storm, leaving his permanent welfare to take care of itself. As regards the physician himself, the evil of symptom-treating is that it is too easy. He has done something, he has written a prescription, he has given relief, and that makes him forget all else that is to be expected of him.

M.R.C.P. Pardon me if I suggest that these are mere generalities, that you have given us no instances to prove them.

M.D., OXON. I can supply you with any amount. A young girl is sent to me by a general practitioner with headache. She pulls out a bundle of prescriptions. I know exactly what I shall find—Bromide, Bromide, Bromide; and I say to myself, reflex doctoring. The practitioner did not go to the trouble of a long investigation of the

[1] But by no means as Herr v. Goethe would have classed him—a fool on his own account (*Ein Narr auf eigner Hand*).

circumstance which caused that particular symptom. No, he took the short cut from the headache cell to the bromide cell, pluming himself no doubt on his faith and skill in medicinal therapeutics.

M.R.C.P. O, that is merely a gross case of symptom-treating—a practice which the youngest clinical clerk knows how to avoid.

M.D., OXON. Well, what say you to this? A young man comes to me with slight albuminuria, and shows me a prescription from one of the most rising men of your school. What do I find? Nitroglycerine. Reflex doctoring again! A little more scientific than that of the general practitioner, but reflex for all that. The vascular tension is increased in Bright's disease, nitroglycerine will lower it, and so now and then relieve uncomfortable symptoms. Therefore, albuminuria and nitroglycerine are ticketed together, connected by a short cut in the brain, and the appearance of the one means the prescribing of the other. Shoulder, present, fire!

M.R.C.P. I am not concerned to defend every unthinking practitioner who misreads and misapplies our teaching. I simply contend that the alleviation of symptoms is as important a function of the physician as the removal of causes: indeed, in many of his cases, is all that is left to him to do. The expectant physician, because he cannot remove the cause, stands by inactive, and refuses to prescribe for symptoms, on the ground that it is unscientific. We, on the other hand, are not idiots enough to treat a symptom medicinally if we can cut the ground from beneath it in other ways, but we have discovered a list of remedies which are potent in relieving symptoms, and which, let me say, would never have been discovered, if all of us had belonged to the inactive and sceptical school. These drugs we do not hesitate to employ. Take the case you quote. A patient with chronic kidney disease comes before the expectant physician. Quite rightly he does his best to get the skin to work, to depurate the blood, to lighten the labour of the incompetent kidney. But meanwhile the patient is suffering, perhaps, agonies from headache and from dyspnœa. Your remedies give no relief. Then we step in and show that these troubles are bound up with increased blood pressure, and that one of the drugs discovered by us will remove that phenomenon, and with it relieve the symptoms. Then you turn round on us and call it reflex doctoring. I should be glad to know of any therapeutic expedient which has a better claim to be recognised as the outcome of a reasoned out process than that.

M.D., OXON. In the first instance I grant. But what I contend is, that the line once laid down with so much thought and care is afterwards used as a short cut. You, I take it, do not prescribe nitro-glycerine in more than perhaps 10 per cent. of your cases of albuminuria; but I know of men who, on your teaching, prescribe it in 100 per cent., and think that thereby they have done the utmost that science can demand of them. It never, of course, occurs to them to ask whether they are doing harm. Really, I fear that many wicked things are done in the name of your school. A short time ago I was asked to see a patient with typhoid fever, and how do you think his medical attendant was treating him? Why, with a scruple of quinine every morning, and with one night a hypodermic injection of atropine to check the perspiration, and the next night an injection of pilocarpine to bring it back. That is the sort of thing your school is responsible for. You have simply gone mad over fever. Your cry now is all for a safe and efficient reducer of temperature, which I could almost find it in me to wish that you may never discover. For what do we find now? Why, doctors all over the country, literally in awe of their clinical thermometers, intent on watching the excursions of a thread of quicksilver, in order to be down on it and duly chastise it with quinine or kairin or the cold bath, if it venture beyond the bounds which their preconceptions have fixed for it. Happily, perhaps, their efforts to restrain it are of little use; but have these go-ahead practitioners ever asked themselves what the pyrexia they have declared war against means? Has the possibility ever entered into their heads that their patients may be made worse by their meddlings? I will undertake to say that in every town in the country you shall find at this present time some doctor giving five, ten, twenty grains of quinine at varying intervals to some unlucky patient, simply because he or she has a temperature of over 102° or 103°, and perhaps a disease which they have not yet diagnosed. Now that is the distorted result of a perfectly rational teaching of your school, that if fever as such threatens to kill a patient, it can and must be brought down. You agree with me?

M.R.C.P. Perfectly on this last point, because we are both equally in the dark as to the indications in minor degrees of fever. You have no more ground for saying that quinine does harm in such cases than I have for saying that it does good. But our action is not so irrational as you seem to think. The aim of our researches is not to counteract the fever *quoad* symptom, but to nullify the cause on which it depends. Quinine does this in malarial fever, and I see no reason why we should not yet discover a drug which will do the same in continued fever. If it is ever discovered, it will be by the new school, and not, I will venture to say, by the expectants.

M.D., OXON. No; but let us hope that before you have discovered your antidote, we shall have succeeded in stopping all occasion for its exhibition. The rational treatment of fevers is prevention. And pray, what do you say to all this, Mr. L.?

L.R.C.P. I have no theories. We general practitioners are here to cure our patients, or to relieve them, for our own sake, if not for theirs. We must cure them, or else call you in to help us; and I must say that much as I enjoy the pleasure of meeting you, I am heartily grateful for any means whereby the necessity for it can be avoided. You see, we have to please our patients as well as to treat them. We cannot look down on them from your serene height, and so I fear we fall occasionally into reflex doctoring, which I may perhaps observe would never have become reflex if it had not been successful. By the way, I think they will be expecting us upstairs.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.

AT the ordinary meeting of the Council of the College held on Thursday, the 11th instant, the following elections were made:—To the Court of Examiners: Mr. Hulke (re-elected), Mr. Langton, and Mr. Pick. The following Examiners were appointed by this College to conduct examinations under the combined scheme:—*Elementary Anatomy*—Messrs. Davies, Colley, Gould, Mansell, Moullin, Black, and Reid. *Elementary Physiology*—Mr. Golding-Bird. *Anatomy*—Messrs. Howse, Owen, Godlee, and Bennett. *Physiology*—Messrs. Power, Baker, and Yeo. *Midwifery*—Drs. Galabin, Champneys, Herman, and W. A. Duncan. As Board of Examiners for the Fellowship

the following were elected:—*Anatomy*—Messrs. Howse, Anderson, Owen, Godlee, and Morris. *Physiology*—Messrs. Power, Baker, Golding-Bird, and Yeo. Sir James Paget, Sir Spencer Wells, Mr. Erichsen, and Mr. Marshall, together with the President and Vice-Presidents were appointed Delegates of the College to confer with an equal number of Delegates from the College of Physicians with a view to acquire, as conjoint tenants, a site in Long Acre for the erection of buildings for examination and other purposes. Mr. Marshall's motion to reduce the fee for the College Diploma (when granted under the combined Colleges) from 20 to 15 guineas was postponed in Mr. Marshall's unavoidable absence through indisposition.

THE MAHOMED FUND.

The following subscriptions, amounting to over £600, have been already promised or received:—

Professor Humphry, £50; Mr. Field (in instalments), £100; Mr. Burdett makes himself responsible for £100; Dr. Wilks, £26 5*s.*; Mr. Durham, £50; M.D., £25; F. D., £25; Dr. Chadwick (within six months), £50; Dr. D. Hood (in four instalments), £50; Dr. C. Grigg, £20; Dr. Cayley, £21; Dr. C. T. Williams, £10; Dr. Markham Skerritt, £10; Mr. Bryant, £10; Dr. Dyce Duckworth, £10 10*s.*; C. Bader, Esq., £10 10*s.*; C. A. Aikin, Esq., £10 10*s.*; Dr. E. Clifford Beale, £10 10*s.*; Dr. Goodhart, £15 15*s.*; Mr. Jacobson (in instalments), £15 15*s.*; Dr. Bright, Forest Hill, £5 5*s.*; Dr. W. Moore, Brighton, £5 5*s.*; G. Lawson, Esq., £5 5*s.*; Dr. Coupland, £5 5*s.*; C. Woolridge, M.B., £5 5*s.*; C. Macnamara, Esq., £15 15*s.*; H. W. Page, Esq., £10 10*s.*; the President of Guy's Hospital, £5 5*s.*; the Treasurer of Guy's Hospital, £5 5*s.*; Dr. Isambard Owen, £5 5*s.*; Dr. Douglas Powell, £3 3*s.*; Dr. Pitt, £3 3*s.*; G. Eastes, M.D., £1 1*s.*; Dr. Sharkey, £2; Dr. Shingleton Smith, Clifton, £1 1*s.*; A. B. R. Myers, Esq., Scots Guards, £1 1*s.*; T. Easter, M.D., £2 2*s.*; J. Wickham Barnes, Esq., £1 1*s.*; A. Jackson, Sheffield, £1 1*s.*

We are asked to state that subscriptions should be sent to Mr. Durham, Treasurer, 82, Brook Street, W.; or to the Secretaries, Dr. Goodhart, 25, Weymouth Street, W.; Mr. Jacobson, 41, Finsbury Square, E.C.

UNIVERSITY OF CAMBRIDGE.—On December 4th, the following degrees were conferred: M.D., John Maekern, Caius; M.B., Harold B. Shaw, Sidney.

ROYAL COLLEGE OF SURGEONS.—The following members of the College having undergone the necessary examinations for the Fellowship, at meetings of the Court of Examiners, on the 27th, 28th, and 29th ultimo, and on the 1st instant, were reported to have acquitted themselves to the satisfaction of the Court, and, at a meeting of the Council on the 11th instant, were duly admitted Fellows of the College, viz.:—

Messrs. Edward S. Bishop, L.R.C.P. Ed., Manchester; Alexander R. Anderson, L.S.A., Bond Street, Holford Square; Walter H. H. Jessop, B.A. and M.B. Cantab, Harley Street, W.; George L. Johnson, M.B. Cantab., Highfield Hill, Upper Norwood; Henry B. Tait, L.R.C.P. Lond., Highbury Park; Ernest G. Colville, Eastbourne; Joseph L. Hewer, M.B. Lond., Highbury New Park; Edwin F. White, L.S.A., Putney; Thomas H. Pounds, L.S.A., Snodland, near Rochester; John Cahill, L.R.C.P. Lond., Albert Gate; Walter C. Dendy, L.R.C.P. Lond., Forest Hill; Archibald Watson, M.D. Paris, Queensland; Thomas H. Morse, L.R.C.P. Ed., Norwich; William Bull, Bromborough, Cheshire; Robert B. Howard, L.R.C.P., Lond., Montreal, Canada; and James Wilson, M.D., Queen's University, Ireland, Maneymore, Derry.

Two other gentlemen passed, but their diplomas are retained until reaching the required age of 25 years, and twelve candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for twelve months. Thirty candidates were examined against seventeen the corresponding period last year. With this meeting the examinations for the present year were brought to a close.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 4th, 1884:—

William Amherst Henry Barrett, St. Thomas's Hospital; Isaac Rising Cory, St. Thomas's Hospital; Jno. Alfred Gray, St. Bartholomew's Hospital; Francis George Clifton Martin, London Hospital; Montague Williams Oldham, Guy's Hospital; Bernard Relton, St. Thomas's Hospital; George Francis Sydenham, St. Bartholomew's Hospital; Charles Henry Wade, London Hospital; Charles Yeoman, St. Thomas's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Samuel Constable, Dublin and St. George's Hospital; Edward Soy, King's College.

UNIVERSITY OF DURHAM.—The following gentlemen satisfied the Examiners in the various examinations, viz.:—

Degree of Doctor in Medicine for Practitioners of fifteen years' standing—

Rowland Hill Coombs, L.R.C.P., M.R.C.S., L.S.A.; William Young Martin, F.R.C.S.

Degree of Doctor in Medicine (Thesis.)—

William Robinson, M.B., M.S., M.R.C.S.; William John Sheppard M.B.; Thomas Coke Squance, M.B., M.S.

Second Examination for the Degree of Bachelor in Medicine—

Frederick Martindale Blackwood, M.R.C.S., College of Medicine, Newcastle-upon-Tyne; Charles Robert Davidson, Westminster Hospital; Solomon Abraham Erulkar, Grant Medical College, Bombay, and College of Medicine, Newcastle-upon-Tyne; Alexander Harper, M.R.C.S., St. Bartholomew's Hospital; Frank James Malden, St. Bartholomew's and College of Medicine, Newcastle-upon-Tyne; Frederick Charles Mears, M.R.C.S., L.S.A., London Hospital; George Palmerston Newbolt, St. Bartholomew's Hospital; Reginald Pollard, St. Bartholomew's Hospital; George William Richards, London Hospital; William Slater, College of Medicine, Newcastle-upon-Tyne; Charles Edward Tanner, M.R.C.S., St. Bartholomew's Hospital; Mark Joseph Wakefield, College of Medicine, Newcastle-upon-Tyne; James Russell Watson, M.R.C.S., Charing Cross Hospital; William Harper Wigham, College of Medicine, Newcastle-upon-Tyne.

Degree of Master in Surgery—

Robert J. Irvine, M.B.

For the last-named examination there were four candidates.

ROYAL COLLEGE OF SURGEONS.—The following synopsis indicating the range of subjects in the examination for the diploma of membership of the Royal College of Surgeons will, no doubt, be read with great interest by Metropolitan and Provincial Teachers, viz.:—

SYNOPSIS indicating the Range of Subjects in the Examination on *Chemistry* and *Chemical Physics*.—I. *Chemical Physics*: Heat—Definition of Heat and Temperature; Thermometers; Latent and Specific Heat; Conduction, Conviction and Radiation; Expansion of Liquids and Gases; Tension of Vapours; Hygrometers. Light—Laws of its Propagation, Refraction and Reflection; Refraction through Lenses and Prisms; Formation of Images. Electricity—(Frictional Electricity) The two Electrical States; Conduction; Insulation; Induction; Electrical Discharge; (Voltaic Electricity) Simple forms of Batteries; Currents, their Heating and Chemical Effects. II. *Chemistry:* Mechanical Mixture and Chemical Combination; Elements and Compounds; Laws of Chemical Combination and Decomposition; Atoms and Molcules; Calculation of Quantities by Weight and by Volume; Specific Gravities; Diffusion; Acids, Bases and Salts; the more Imortant Elements and their Chief Compounds. Carbon Compounds—The Cyanogen Group; Alcohols; Ethers; Aldehyd; Acetic Acid; Glycerine, Fats and Saponification; Amylaceous and Saccharine Substances; Fermentation; the Principal Vegetable Acids and Chief Natural Organic Bases; the Chemical Constituents of the Animal Organism. Qualitative Analysis, including the Detection of Poisons.

SYNOPSIS indicating the Range of Subjects in the Examination on *Materia Medica, Medical Botany, and Pharmacy.—Materia Medica:* The Candidate shall be required to possess such knowledge of the drugs of the British Pharmacopœia as shall enable him (*a*) to recognise them, to refer to them their officinal source, and to state their general effects on the system; (*b*) to describe the physical and chemical characters of drugs derived from the Inorganic Kingdom; (*c*) to mention the active principles of drugs derived from the Organic Kingdom, and to give an account of the physical and chemical characters of such principals; (*d*) to state the impurities or adulterations to which the principal drugs in the Pharmacopœia are liable. *Medical Botany:* The Candidate shall be required (*a*) to recognise the officinal indigenous plants, and to exhibit a knowledge of the botanical and general characters of their Natural Orders; (*b*) to possess a general knowledge of the chief exotic products contained in the Pharmacopœia. *Pharmacy:* The Candidate shall be required to possess a knowledge (*a*) of the several Pharmaceutical Groups, such as Extracts, Tinctures, Infusions, &c.; (*b*) of the officinal preparations of the more important drugs; (*c*) of the essential ingredients in the more important preparations of the Pharmacopœia and the proportions of these ingredients in such preparations; (*d*) of the ordinary doses of the principal drugs and their preparations.

SYNOPSIS indicating the Range of Subjects in the Examination on *Elementary Anatomy.*—1. The Bones. 2. The Attachments of the Muscles to the Bones of the Upper and Lower Extremities.

SYNOPSIS indicating the Range of Subjects in the Examination on

Elementary Physiology.—1. The recognition, under the microscope, of the Elementary Tissues, namely:—(*a*) Fibrous (including Elastic) Tissues; (*b*) Adipose Tissue; (*c*) Epithelium; (*d*) Bone. (*e*) Cartilage; (*f*) Muscle; (*g*) Nerve-Fibres and Cells; (*h*) Blood. N.B. No Histology will be required beyond that which is included in the recognition of the above Tissues. 2. The phenomena of the Coagulation of the Blood. 3. The Course of the Circulation of the Blood, including the plan of construction and the action of the Heart. 4. The principal changes produced in the Blood and Air by Respiration. The plan of coustruction of the Respiratory apparatus. The movements of Respiration, and the means by which they are accomplished. 5. A general classification of Food, and the principles on which such classification is founded. Diet and Dietaries. 6. The principal changes which Food undergoes in the Mouth, Stomach, and Intestines. 7. An Enumeration of the chief constituents of the principal Secretions and Excretions. 8. The Temperature of the Body. The means by which it is produced and maintained. 9. The phenomena of Contraction in Striped and Unstriped Muscle. 10. The general plan of construction of the Nervous System.

The Library of the Royal College of Surgeons will be closed on the 26th and 27th of December.

Royal College of Surgeons in Ireland.—At a meeting of the Council, held on December 4th, the following were elected examiners in dental surgery for the ensuing year, viz.:—Edward Stamer O'Grady, M.A.; Henry Gray Croly, Henry G. Sherlock, J. Daniel Corbett, Robert Hazelton, and Richard Theodore Stack, M.D., Esqrs.

The Mater Misericordiæ Hospital, Dublin.—It is proposed to complete the very extensive buildings constituting this hospital by the erection of a large western wing. The hospital, constructed on the corridor system, was in part opened in 1861, and ten years later the eastern wing was finished, just in time to afford accommodation to 680 patients suffering from small-pox in the epidemic of 1871–72. It is now intended to collect a sum of 19,000*l.* to defray the cost of the completion of the buildings. When finished, the hospital will be the largest in Dublin. There was a meeting of sympathisers with the movement on Sunday last, and Cardinal MacCabe, the Roman Catholic Archbishop of Dublin, presided. A collection amounting to about 1,000*l.* was made before the meeting separated.

Charitable Bequests to Dublin Hospitals.—Mr. Robert Billing has left to the Hospital for Incurables, Donnybrook Road, 3,000*l.*; to the Meath Hospital, Heytesbury Street, 3,000*l.*; to the City of Dublin Hospital, Upper Baggot Street, 3,000*l.*; to the Cork Street Fever Hospital, 2,000*l.*; to the Rotunda Hospital, Great Britain Street, 2,000*l.*; and to the Adelaide Hospital, Peter Street, 2,000*l.*

Army Medical Staff.—A monumental brass to the memory of the officers of the Army Medical Department and non-commissioned officers and men of the Army Hospital Corps, who lost their lives in Egypt in the years 1882–3, has just been erected in the Chapel of the Royal Victoria Hospital, Netley. The memorial was raised by subscription among those officers of the Department and Corps who served in Egypt during that period.

The Surgical Aid Society.—On December 5th, the Lord Mayor presided at the 22nd annual meeting of the friends and subscribers of this society. He was sorry to hear that unless an additional 1,000*l.* per annum was forthcoming the society would be compelled to curtail its sphere of usefulness, but he would advise the governing body to appeal to the various city companies, who would, he was convinced, be only too pleased to support such an institution. The annual report, which was then read, mentioned that during the year 5,357 patients had been relieved, including 1,946 men, 2,585 women, 826 children. There was a total increase of 725 patients over the number relieved during the previous year, and this made an average of 103 per week. No less than 46,385 persons had been relieved since the foundation of the society, and the number of surgical appliances supplied during the same period was 61,644, of which number no less than 8,101 had been supplied during the past 12 twelve months. Special grants had also been made in 487 cases. The total income during the year was 6,380*l.* 4*s.*, and the expenditure amounted to 6,310*l.* 11*s.* 11*d.*

University Seats in Parliament.—Mr. Bryce proposes to move in Committee on the Redistribution Bill that the representation in Parliament of the English Universities shall cease, on the ground that such representation, while it has not benefited the country generally, has been found in practice injurious to the Universities themselves.

The Parkes Museum.—At the annual general meeting of the members held on Thursday week, the council reported with much regret that the museum was very greatly in want of funds, and urged upon the members to bring forward its claims for support, and to endeavour to obtain new members and donations from those interested in its work. Since the first establishment of the museum those who had been most interested in its progress had always hoped that it might grow into a health institution, established on a wide and truly national basis, and it was with great satisfaction that they had heard a rumour to the effect that such an institution might possibly be established as a result of the International Health Exhibition. The Council were confident that members would co-operate with them in furthering by every means in their power the realisation of so beneficent a scheme.

Aberdeen University.—At a largely-attended meeting of students of Aberdeen University held on the 5th instant, it was unanimously resolved to form a Students' Representative Council, to watch over the interests of the students. Representatives to the Council from the various classes of the Arts and Medical Faculties were then elected, and it was agreed to send intimation to the Divinity and Law Faculties, requesting them also to elect representatives to the Council.

The Paris Obstetrical and Gynæcological Society.—This Society has just been formed at Paris, and consists of 30 titular members, and of 70 national and foreign associates and correspondents. As the foundation members at present exceed in number the 30 titular members determined upon, there will be no new election until these have become fewer than 30. The officers of the Society are: Professor Pajot, president; MM. Alphonse Guérin and Gallard, vice-presidents; and M. Charpentier, secretary.

Cholera in France.—The Minister for Foreign Affairs has just issued a circular addressed to all French plenipotentiaries, ambassadors and consuls, instructing them to announce to the foreign powers to whom they are accredited that the epidemic cholera which has prevailed in France has now entirely disappeared, and requesting the removal of all quarantine regulations that have been applied to French commerce.

The Cholera Epidemic.—Dr. Collingridge, the Medical Officer of Health for the port of London, has been engaged in Paris in an investigation into the nature and characteristics of the cholera epidemic, the conditions under which it existed, and the special arrangements made for combating the disease, both as regards hospital and sanitary administration.

The English Cholera Commission.—Doctors Klein and Gibbes have completed their inquiries and submitted a short preliminary report. They state that Dr. Koch's comma-shaped bacilli are not peculiar to cholera, but occur also in other diseases of the intestines: that these bacilli do not behave in any way differently from other putrefactive organisms, and that inoculations of animals with recent and old cultivations of comma-shaped bacilli, as well as with cholera excreta, produced no effect.

The Hospitals Association.—There was a large gathering of members and friends of this association on Saturday evening at a *conversazione* given in the rooms of the Medical Society. The guests included several eminent members of the medical profession, together with the secretaries of the principal London hospitals.

Charitable Bequest.—Mr. E. Ralli has bequeathed £500 to St. Mary's Hospital, Paddington.

Errata.—Page 740, 2nd column, 4th paragraph, for "Between London and the Snowy-Range," *read* "Landour."

University of Edinburgh New Buildings.—The Earl of Home has just intimated a subscription of 1,000*l.* to the fund for completing these buildings. This and other similar donations that have been received since Mr. M'Ewan's munificent offer of 5,000*l.*, on condition of the balance of 10,000*l.* being raised before May, gives every promise that the requisite amount will be forthcoming. The Committee feel, however, that in order to contribute to this result further subscriptions of substantial amount will require to be announced, and they earnestly hope that this will be done.

Volunteer Medical Staff Corps.—This corps held its first general parade on Saturday evening in Westminster Hall, when nearly 300 officers and men out of about 500 on the books appeared in uniform before Surgeon-General Hunter, and went through stretcher drill. It is anticipated that the formation of this corps will be the means of furnishing a large trained reserve capable of affording efficient aid to the country in time of foreign war.

Recrudescence of Cholera in Italy.—There has been a serious outbreak of cholera at Tegiano, in the province of Salerno, where fifteen cases and five deaths are reported. This will somewhat delay the total abolition of quarantine between the Italian continent and the Islands of Sicily and Sardinia. The disease in the above-named Commune is, however, already on the decline.

APPOINTMENTS.

Brierley, Thomas Booth, M.R.C.S. Eng., L.S.A.—Medical Officer to the Tattenhall District, Tarvin Union, *vice* Mr. T. J. Proudlove, deceased.

Cresswell, Thomas H., M.R.C.S., and L.S.A. Lond.—Medical Officer to the Grassington and Kettlewell Districts, Skipton Union, *vice* Mr. J. Anthony, resigned.

Dodds, Dr.—Assistant Medical Superintendent of the Montrose Asylum.

Dunn, Thomas, M.B.—Assistant Medical Officer to Woodilee Asylum, Lenzie, *vice* William Gibb, resigned.

Emmerson, William, L., M.D.—Re-appointed Analyst for the Borough of Stamford.

Fitzmaurice, Richard, L.R.C.P., and L.R.C.S. Edin.—Medical Officer to the Third District, Cuckfield Union, *vice* Mr. W. E. Porter, resigned.

Francis, Lloyd, B.A., M.B. Oxon, M.R.C.S.—Assistant Medical Officer to Saint Andrew's Hospital for Mental Diseases, Northampton, *vice* E. V. Cooper, L.R.C.P.L., M.R.C.S.L., resigned.

Givan, Joseph.—Medical Officer to the Ballygawley Dispensary, Clogher Union.

Handfield-Jones, M.B., M.R.C.P.—Assistant Physician to the Chelsea Hospital for Women, *vice* Lendon, resigned.

Hardie, Robert, M.B., M.R.C.S.—Resident House Surgeon to the Gateshead Dispensary, *vice* Robert Purdie, M.B., C.M., resigned.

Harper, Gerald, M.D.—Additional Assistant Physician to the Chelsea Hospital for Women.

Holyoake, Ralph, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer to the Hanbury District, Droitwich Union, *vice* Dr. S. S. Roden, resigned.

Peskett, A. F., M.R.C.S., L.S.A.—Assistant Resident Medical Officer at Stockwell Fever Hospital.

Stephens, L. E. W., M.R.C.S., L.S.A.—House Surgeon to the Bristol General Hospital.

Stonham, C., F.R.C.S.—Assistant Surgeon to the Cancer Hospital, Brompton.

Welch, Robert, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer to the Workhouse, Southampton Incorporation, *vice* Mr. H. Bencraft, deceased.

VACANCIES.

Altrincham Union.—Medical Officer to the Lymm District, in succession to Dr. W. P. Brabazon, resigned. Area, 12,216 acres. Population, 6,583. Salary, £60 per annum.

Birmingham and Midland Eye Hospital.—House Surgeon. *For particulars see Advertisement.*

Depwade Union, Norfolk.—District Medical Officer. *For particulars see Advertisement.*

Durham Union.—Medical Officer to the Eastern District, in succession to Mr. E. S. Robson, resigned. Area, 11,282 acres. Population, 13,843. Salary, £45 per annum.

East Riding Asylum, Beverley, Yorks.—Assistant Medical Officer. Salary £100 per annum, with board, furnished apartments, &c. Candidates must be qualified, unmarried, and not above 30 years of age. Applications, stating age and qualifications, with not more than four recent testimonials, to be sent to M. D. Macleod, Medical Superintendent, before December 20th.

Portland Town Dispensary, Henry Street, St. John's Wood.—House Surgeon. Salary £80 per annum, with apartments, &c., and attendance. Candidates must be duly qualified, and will be required to dispense. Applications and testimonials to be sent to the hon. Secretary, 10, Ormond Terrace, Regent's Park, not later than December 13.

Ratcliffe Infirmary, Oxford.—Honorary Physician. *For particulars see Advertisement.*

Southmolton Union.—Medical Officer to the Seventh District, in succession to Mr. Timothy Daly, resigned. Area, 9,770 acres. Population, 1,455. Salary, £31 10*s.* per annum.

St. Mary's Hospital, Paddington, W.—Two Physicians. Candidates must be Fellows or Members of one of the Royal Colleges of of Physicians in the United Kingdom. Applications, with three recent testimonials, to be sent to the Secretary (from whom further particulars can be obtained), on or before December 13th.

The Guest Hospital, Dudley.—Two Honorary Surgeons.—Candidates must be Fellows, Members, or Licentiates of the Royal College of Surgeons of England, Edinburgh, or Dublin, and possess a registered qualification in medicine. Testimonials and certificate of Registration to be sent to the Secretary, on or before December 15th.

The Middlesex Hospital, N.—Assistant Physician. (*For particulars see Advertisement.*)

The Victoria Hospital for Children, Queen's Road, Chelsea, S.W.—House Surgeon. Salary, £50 per annum, with board, lodging and laundry. Candidates must be Fellows or Members of the Royal College of Surgeons, England, and Licentiates of the Apothecaries, or of the Royal College of Physicians, or Graduates in Medicine of any University recognised by the Medical Council. Applications, with copies of testimonials, to be sent to the Secretary, at the hospital, on or before December 13th.

Truro Union.—Medical Officer to the St. Agnes District, in succession to Mr. F. G. H. Whitley, resigned. Area, 14,600 acres. Population, 6,202. Salary, £45 per annum.

Watford Union.—Medical Officer to the Sarratt District, in succession to J. H. Bartlett, resigned. Area, 1,550 acres. Population, 690. Salary, £50 per annum.

DEATHS.

Banister, George, late Surgeon-General, Indian Army, at Eastbourne, on December 6th, aged 64.

Duigan, Daniel John, C.B., M.D., Deputy Inspector-General of Hospitals and Fleets, R.N., at 29, Edith Road, West Kensington, on December 2nd, in his 63rd year.

Gibson, J.B., M.R.C.S., at 9, River Street, Myddleton Square, E.C., on December 5th, aged 73.

Lay, J. J., M.D., M.R.C.S., L.S.A., at Peasenhall, Suffolk, on December 4th, aged 70.

Muscroft, Henry, M.D., at Pontefract, on December 5th, in his 55th year.

Robertson, J., M.D., M.R.C.S., F.C.S., &c., formerly of Rochester, at Bath, on December 2nd, aged 45.

NOTES, QUERIES, AND REPLIES.

MALOJA.

[TO THE EDITOR OF THE MEDICAL TIMES.]

Sir,—Will you allow me to state that the rumour of the closure of Hotel Kursaal de la Maloja, which has been so diligently circulated privately and by a portion of the Swiss press, is quite incorrect. The Kursaal (constructed especially for Alpine winter residence) will remain open the whole season.

I am, Sir, yours &c.,

Maloja, Upper Engadine. A. Tucker Wise, M.D.

COMMUNICATIONS RECEIVED—

Dr. Clifford Allbutt, F.R.S., Leeds; Dr. Sangster, London; Dr. Herman, London; Dr. Clifford Beale, London; Mr. Wagstaffe, Sevenoaks; Dr. Dudley Buxton, London; Dr. Tucker Wise, Maloja; Mr. R. Marcus Gunn, London; Our Vienna Correspondent; The Editor of the North Western Lancet; The Secretary of the Parkes Museum, London; Mr. G. Hopkins, London; Mr. W. J. Spence, Bradford; The Director-General of the Army Medical Staff, London; Dr. McAlister, Cambridge; The Registrar of the Medical Society, London; Dr. Caddy, London; Dr. Burdon Sanderson, Oxford; Mr. H. Campbell Pope, London; Mr. J. B. Barnes, London; The Registrar-General for Scotland, Edinburgh; The Registrar-General for England, London; The Secretary of the Hospitals Association, London; The Secretary of the Apothecaries' Society, London; The Secretary of the Society of Medical Officers of Health, London; Mr. Thos. Fletcher, Warrington; Our Dublin Correspondent; Mr. Knowsley Thornton, London; Mr. P. H. Boobyer, Nottingham; Mr. J. H. Morgan, London; Dr. Donkin, London; The Secretary of the Pathological Society, London; Dr. Macaskie, Bamburgh; The Secretary of the Sanitary Assurance Association, London.

BOOKS RECEIVED—

Insanity and Allied Neuroses, by George H. Savage, M.D., M.R.C.P.—The Sanitary Chronicles of the Parish of St. Marylebone, during October 1884—Acorn Poisoning, by Professors Simonds and Brown—Dermatitis Herpetiformis, by Louis A. Duhring, M.D.—Hints on Health to the Overworked, by Dr. Stewart—Lectures to Women, by Dr. Alice Ker—Health Lectures for the People—The Health and Physical Development of Idiots, &c., by G. E. Shuttleworth, B.A., M.D., &c.—Report on the Health, Sanitary Condition, &c., of Kensington, by T. Orme Dudfield,

M.D.—Vorlesungen über Pharmakologie für Ärzte und Studirende, von Dr. C. Binz—Transactions of the Pathological Society of London, Vol. 35—Tumeurs de la Vessie, par le Dr. Alfred Pousson—Atti del Quarto Congresso della Società Freniatrica Italiana—On Thinking, by Julius Dreschféld, M.D., F.R.C.P.—The Harveian Oration, by J. R. Reynolds, M.D., F.R.S.—The Revival of Ovariotomy, by Sir Spencer Wells, Bart.—Andreas Calsalpin—Die Englander und die Entdeckung des Blutkreislaufs—Report on a Case of Acute Mania, by Alex. Nellis, Jnr., M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular—Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin — Philadelphia Medical News — New York Medical Journal—Louisville Medical News—Weekblad—Maryand Medical Journal—The Philadelphia Medical Times—Le Progrès Medical—The Students' Journal and Hospital Gazette—International Review—The Daily Review, November 29th—Scienze Mediche—The Practitioner—Berliner Klinische Wochenscrift—Centralblatt für die Medicinischen Wissénschafter—International Review of Medical and Surgical Technics—La Tribune Médicale—The Australasian Medical Gazette—The Dublin Journal of Medical Science—Revista de Medicina—The Boys Own Paper—The Sunday at Home—The Girl's Own Paper—Friendly Greetings—The Leisure Hour—The Indian Medical Gazette—The Ophthalmic Review—Revista Internazionale—An Ephemeris of Maderia Medica, etc.—The Glasgow University Review.

APPOINTMENTS FOR THE WEEK.

Friday, December 12 (*this day*).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

The Parkes Museum, 74A, Margaret Street, Regent Street, 4.30 p.m.—Dr. Norman Chevers, C.I.E., on "Personal Precautions Against Cholera to be taken by each Individual; Panic; Food and Drink; Clothing."

University of London, Burlington Gardens, 5 p.m.—Mr. Victor Horsley's First Brown Lecture, subject—The Thyroid Gland, its relation to the Pathology of Myxœdema and Cretinism, to the Surgical Treatment of Goitre, and to the general Nutrition of the Body.

Clinical Society of London.—Adjourned Debate on Mr. Morrant Baker's Paper, "On Charcot's Joint Disease." Professor Charcot's specimens and others will be again on view.

Saturday, December 13.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, December 15.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

University of London, 5 p.m. Mr. Victor Horsley's Second Brown Lecture, subject—"The Thyroid Gland: its Relation to the Pathology of Myxœdema and Cretinism, to the Surgical Treatment of Goitre, and to the General Nutrition of the Body."

Medical Society of London.—Sir Andrew Clark, Bart., will read a Paper on "A Case of Relapsing Pneumonia in an aged man, with some observations on the nature of the Disease."

Tuesday, December 16.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2¼ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic, 3 p.m.; St. Mark's Hospital, 9 a.m.; St. Thomas's (ophthalmic operations), 4 p.m.

Pathological Society of London.—Dr. Wilks, "Intestinal Obstruction produced by Gall-stones;" Dr. Carrington, "Thyroid from a Case of Exophthalmic Goitre;" Mr. Rose and Dr. Sainsbury, "Gunshot Injury of the Brain;" Dr. Hale White, "The Sympathetic System, from four Fatal Cases of Diabetes;" "Patent Ductus Arteriosus" (card); "Abnormality of Lung" (card); Mr. Godlee, "Fracture of Skull in an Infant, followed by the Effusion of Serous Fluid;" Mr. Lane, "Fracture of First Rib;" Dr. Norman Moore, "Hæmorrhage into Substance of Liver;" Mr. Pepper, "A Case of Malignant Disease of the Spermatic Cord;" Mr. D'Arcy Power (for Dr. Mackinder), "A Pinched or Duplicate Bladder" (card); Mr. G. R. Turner, "A Drawing of Congenital Deformity of the Perinæum" (card).

University of London, 5 p.m. Mr. Victor Horsley's Third Brown Lecture, subject—"Simple Traumatic Fever, based on 160 Cases of Simple Fracture."

Wednesday, December 17.

Operations at Middlesex, 1 p.m.; St. Mary's, 1¼ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

The Hospitals Association, 1, Adam Street, Adelphi.—Mr. John Marshall, F.R.S., "On Hospital Circular Wards;" Mr. Keith Young, "The Miller Memorial Hospital at Greenwich."

Thursday, December 18.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, December 19.

University of London, 5 p.m. Mr. Victor Horsley's Fourth Brown Lecture, subject—"Urethral Fever."

Society of Medical Officers of Health, 1, Adam Street, Adelphi, 7.30 p.m.—Mr. H. E. Armstrong, "The Statistics of the Medical Officer of Health as a Criterion of Sanitary Progress."

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The Medical Times *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

SUMMARY OF CONTENTS, DECEMBER 6.

MEDICAL TIMES

AND GAZETTE.

No. 1799. LONDON, SATURDAY, DECEMBER 20, 1884.

Contents.

ON A CASE OF RELAPSING OR INTERMITTENT PNEUMONIA OCCURING IN AN AGED MAN.[1]

By SIR ANDREW CLARK, Bart., M.D.

Physician to the London Hospital.

On the twenty-fifth of March, 1884, I was summoned to see a gentleman who, for five days, had been complaining of disordered digestion, general malaise, aching of the limbs and feverishness.

The patient was 82 years of age, tall, spare, light-eyed, and, when in health, vivacious, temperate almost to abstinence, actively occupied with private and public business, going out in all weathers, and never sparing himself when summoned to work.

In 1877 the patient had an attack of pneumonia, which, except for the greater length of its prodomal stage, closely resembled the attack which is now to be described.

On that occasion the patient was attended by Mr. Potts, and was seen from time to time by Sir William Gull and myself.

The patient made light of the illness for which I was summoned to see him, and referred it to a chill, which he had caught by sitting in the park, without an overcoat, when overheated by a long ride.

At the time of examination the patient looked pinched and ill; the eyes were dull, the face was yellowish; the tongue loaded, the appetite gone; there was some thirst; the bowels were inadequately relieved; the abdomen was full; and the high-coloured urine, free from albumen, was loaded with lithates. Beyond feeble breathing at the posterior base of right lung nothing was discovered in the chest. The heart, fairly strong, was beating with clear sounds and without murmur 86 times in the minute, and a sufficient amount of blood reached the smaller arteries which were exceptionally soft and otherwise sound. The temperature in the mouth was 102°. The skin was hot, pungent, dry. Nothing definite was discovered in the nervous system; but the patient complained of a dull headache and of difficulty of mental exertion.

A double inguinal hernia had existed for some years.

The patient was ordered immediately to bed; placed upon fluid food every two hours; and had his usual alcoholic supplies, which were very moderate, temporarily suspended. There were furthermore prescribed for him a simple saline at short intervals, and a mild dose of colocynth and blue pill to be taken at 10 o'clock the same night.

On the 26th the patient was in much the same

[1] Paper read before the Medical Society of London, on Monday, December 15th, 1884.

general condition as on the previous day; but there had been a severe rigor late in the afternoon; the temperature had risen to 103°; the pulse was 94; the breath sounds at right posterior base were very feeble with slightly heightened resonance; and the patient felt weak.

The chest was surrounded by a hot poultice. The saline was continued with two grains of quinine added to each dose and given every two hours. The colocynth and blue pill was repeated at night; and an enema was ordered to be administered the next morning on waking.

From this time to the conclusion of the illness the patient was attended twice or thrice daily by Mr. James Newham. To his care and skill was in great measure due the happy issue of the case, and to his ready kindness I am indebted for many of the facts recorded in this narrative. For the reflections which follow I am myself alone responsible.

On the 27th, the patient had another severe rigor: the general condition was otherwise unaltered; the enema had brought away copious fœtid fæculent discharges from the bowels; the breath sounds at posterior base of right lung were still very feeble, but a faint hollow bronchial breathing had become just audible, and the vocal resonance was slightly increased. The left lung remained free. Treatment continued.

On the 28th there was another rigor, and the patient felt ill and weak. The mouth and tongue were dry; thirst was becoming urgent; the bowels were again freely relieved; the urine was passed freely, had a density of 1014, was free from albumen and deposited purple lithates. The pulse was 104, of moderate fulness and strength, and the ventricular sounds were regular and good; the temperature at 4 p.m. was 104°. There was dulness over the posterior base of left lung; the breath sounds were harsh, granular, loud; there was faint distant bronchial breathing, and the vocal resonance was increased. The respirations were 24 per minute, but there was neither cough nor expectoration. The diet was continued. Half an ounce of brandy was ordered twice or thrice daily, according to circumstances. A fresh saline with a little citrate of potash was prescribed, and five grains of quinine were directed to be given in water twice or thrice in the twenty-four hours.

The report of the 29th was that the patient had passed a very restless night, but that there had been no fresh rigor. In the morning the temperature was 100°, the pulse was 80, and the respirations were 28 per minute. At my visit in the afternoon the patient expressed himself much better. The tongue was cleaning; food had been taken in sufficient quantities; thirst had abated; the bowels had been satisfactorily relieved; the urine was copious and clear, and the pulse, temperature, and respiration were the same as in the morning. A great change, however, had come over the condition of the base of the right lung. There were now complete dulness to percussion, increased tactile vocal fremitus, tubular breathing, and loud bronchophonic voice. There was no pain; no distress of breathing, which had risen to 30 in the minute; no cough; no expectoration.

The treatment was continued as before.

On the 30th the patient improved in all ways, and began to talk of getting up. Temperature 99°. Respiration 28. Pulse 84. Treatment continued.

Early on the morning of the 31st, the patient had a rigor and became rapidly worse. At 11 a.m. the temperature was 103°; the pulse was 110; the respirations were 32. The tongue was loaded and dry; the abdomen was full and tympanitic, the urine was scanty and dark.

In the evening the patient, although still very ill, was somewhat better than in the morning. Since the previous day a fresh consolidation of about three fingers' breadth had occurred in the middle of the right back from the axillary line to the spine. Treatment continued; an aperient was prescribed in addition.

On the 1st of April patient was again much better. The tongue was cleaning; food was again relished; the abdomen had become soft; the bowels had been abundantly relieved; the urine was clear, copious, and free from albumen; the condition of the right lung remained much the same without discernible sign of reparative resolution. The respirations were 36; the pulse was 90, and the temperature 101°.

The treatment was not materially altered. It consisted of food every two hours; an alkaline saline every four hours; half an ounce of brandy diluted with water twice or thrice in the day; quinine twice or thrice in the 24 hours in doses of five or more grains; occasional aperients, and hot poultices.

In the early morning of the 2nd April, patient spoke of himself as well. He had passed a good night, felt no discomfort, and desired food. The tongue was again cleaning; thirst had ceased; the bowels had been comfortably relieved; the urine was abundant and natural; the heart was acting well; the pulse had fallen to 84; the respirations were 34; the temperature was 98·2°, and the skin had become moist. Large moist crepitation was heard at base of right lung, and repair was obviously in progress.

In every respect locally and constitutionally the condition of the patient appeared to be exceptionally satisfactory. Nevertheless within four hours of the time when this state was seen the patient had a very severe and prolonged rigor; and when I saw him late in the evening he was extremely exhausted and distressed; the pulse and temperature had risen; the breathing had become more frequent; for the first time there was a little cough; the tongue had become dry, the face bluish, and the extremities cold. On examining the chest it was found that a fresh strip of consolidation had arisen in the upper and back part of the right lung. Repair at the base of the lung had not advanced.

The quantity of alcohol was increased to three ounces of brandy in the twenty-four hours and was given in hot water; free ammonia and quinine were added to the saline; five grains of quinine were given separately every six or eight hours in the course of the day and hot bottles were placed around the patient's extremities. On the morning of the 3rd of April it was reported that the patient had passed a comfortable night and was better. The tongue was less dry, food had been taken regularly, although the stimulant had been once or twice refused; the bowels had been relieved; the urine was high-coloured, loaded with lithates, and free from albumen; there was neither cough nor expectoration; the breathing, although frequent, was not distressing; the temperature was 96·3° and the pulse 80, but weak and small.

In the evening of the same day the temperature had risen to 103°; the pulse was 100; and the respirations were 34. The consolidation in the upper part of the right lung was extending. Nevertheless the patient was comfortable; food was regularly taken; repair at the base of the lung was advancing; there was neither cough nor expectoration.

From the morning of the 4th to the evening of the 5th April, patient again improved rapidly. Then the patient became suddenly chilly, the temperature rose to 104° and the pulse to 106. The mouth became dry, and there was thirst; the patient grew restless and uneasy, and although by nature good tempered and of gracious manners, he rebelled against all treatment. Except as respects the administration of food and stimulants, often refused, all treatment was suspended.

On the morning of the 6th the patient was again looking and feeling much better. The pulse was about 88, the temperature 97·2°; food was being taken, and repair was making rapid progress at the base of the right lung. About noon, however, the patient had a sudden severe and prolonged rigor, during which he became cold, livid, and almost pulseless and insensible. From this state the patient was recovered by frequent supplies of hot strong soup, and by the use of half an ounce of spirit in two ounces of hot water every two hours.

In the evening there was slight dulness to percussion at the base of the left lung, and the respiratory sounds were extremely feeble. The patient had recovered from his collapse, and the skin, although everywhere very dry, was cold only at the extremities. The pulse was 116, the respirations were 40, and the temperature was 104·5°. The treatment was confined to food and stimulants.

On the 7th there was another rigor, and the patient became so much exhausted and so cold that he was revived only with difficulty. Consolidation to the extent of a hand's breath had taken place at the base of the left lung.

In the evening the patient was worse than he had yet been; slightly delirious, and difficult to manage. Twice or thrice when almost pulseless he managed to leave his bed, and to stand up in the effort to relieve his bladder. On one of those occasions he fainted, and was restored with difficulty. The temperature which in the morning was under 96° was now 105°.

The patient was surrounded with hot bottles; greater firmness was employed in the administration of food and stimulants; and the use of quinine and ammonia in diaphoretic form was successfully resumed.

During the 8th, the patient had another rigor, but held his ground. Right lung rapidly improving; left lung unaltered. Temperature in the morning 97°, in the evening 105°; pulse 120; respiration 48.

During the 9th and 10th, patient continued in much the same condition. Each day about 12.20 there was a rigor. On the evening of the 10th it was found that a second consolidation had taken place in the middle of the back of the left lung. Food and stimulants were now taken with fair regularity, and from ten to twenty grains of quinine were given in the twenty-four hours.

On the 11th and 12th there were no rigors, and the patient began to improve in every way and in the same manner as he had done on several occasions before. Suddenly, however, about mid-day on the 13th, the patient had another rigor and was again much exhausted. In the evening the temperature rose to 104·5° and the pulse to 114. The respirations were 44. The right lung was still rapidly improving. Large crepitations were heard at the base of the left lung; the consolidation at the middle of the lung was unaltered, except that tubular breathing had been replaced by hollow bronchial breathing; and over the upper fourth the respiratory sounds were either very feeble or very harsh; the resonances were not distinctly altered. Treatment continued.

On the morning of the 14th the patient was reported to have passed a fair night, to have taken sufficient food and stimulants, and, although extremely weak, to have felt more comfortable and more himself than for some days. The temperature was 96° and the pulse 108; the respirations were 40. The tongue was moistening at the edges; there was no thirst; the abdomen was soft and small; the bowels had been comfortably and naturally relieved, and the urine was copious. The skin, although still dry, was softer. The intellect was quite clear. There was no distress of breathing, and only occasional cough with a little frothy mucoid expectoration of a viscid sort. About the usual time, however, that is between twelve and one, the patient, without having a distinct rigor, and feeling only "strangely chilly," began quickly to fail. The mouth dried, the extremities became cold, the skin turned dusky, dry and hard; the breathing was hurried and difficult and the pulse small, weak and irregular; the face grew livid, pinched and anxious, and he looked like a patient who was suffering from cholera and about to die. Nevertheless, supported by pillows, the patient sat up in bed, and apparently much distressed clutched a vessel, into which he desired but was unable to expectorate. In this state the patient remained for over four hours, refusing food, and taking only once or twice a spoonful of brandy and water.

About five, the patient began to recover, and at my evening visit with Mr. Newham, was able to be examined. It was then found that the upper and remaining portion of the left lung had become consolidated. The tongue was loaded and dry, distaste for food and stimulant continued; the urine contained a little albumen, and the bladder acted with difficulty. There was no cough or expectoration, and although the respirations were 48, there was no distress in breathing. The heart sounds were rough, and the arteries small; the pulse was 116, compressible and irregular. Air was everywhere entering the back of the right and the base of the left lungs. Coarse moist crepitations were heard over the middle consolidation, and bronchial breathing had disappeared.

The treatment pursued was the same as before, except that in addition to it, the patient, at the suggestion of Dr. Andrew, who saw him several times in my absence, took five drops of liquor strychniæ thrice daily.

On the 15th, the patient's condition was greatly improved; but in the evening the temperature was 103°, the pulse 110, and the breathing hurried. Nevertheless, the patient felt no discomfort and declared that he was getting rapidly better. On the faith of this belief, the patient insisted on having his bed made, and was none the worse for it.

On the 16th, the patient was again greatly better: the tongue was cleaning; the appetite had returned; the bowels were with a little help acting satisfactorily; and the urine passed without difficulty, was clear, copious and free from albumen. The back of the right lung was still somewhat dull to percussion, but everywhere the air was heard entering the alveolar passages, and there were no râles. Over the upper half of the posterior part of the left lung there were still dulness to percussion, moist subcrepitant râles, and increased vocal resonance. The heart was regular in action; the pulse had fallen to 86; and the evening temperature was 98·5°. Patient had slept a good deal during the day, but awoke always refreshed. The patient was now directed to have food of a semi-fluid sort every four hours; to have from two to three ounces of claret at 11, at 2, and at 8; and to take an effervescent solution of citrate of potash with quinine, iodide of potassium and iron.

On the 17th, the left lung was almost clear, and the patient was in every other way so much better that he insisted successfully in passing an hour on the sofa during the evening.

It is unnecessary, and it would be tedious to continue in detail the remaining part of the narrative of this case. Let it suffice to say that the patient, notwithstanding sundry indiscretions, continued to improve daily, and that on the 6th of May, after having passed through nine or ten severe rigors, six small successive attacks of pneumonic exudation and seven weeks' illness, was declared to be quite well.

I saw the subject of this narrative a fortnight ago. Since the termination of his illness he had continued

to enjoy good health, and was actively engaged in the business of public as well as private life.

It will be seen in the early part of this narrative that the patient ascribed his illness to a chill; but, dissatisfied with the insufficiency of his explanation, we endeavoured to find, in the patient's antecedents, surroundings, or present personal condition, some other cause or concurrence of causes adequate to account for the exceptional characters of this case. We thought of filth poisoning and malaria, of phlebitis, hæmorrhoids, prostatitis, and phlegmon; of autogenetic poisoning, thrombosis, and gout. But of all these possible modes of causation, only two had reasonable grounds for consideration, and neither of the two was satisfactory. Was the origin of the attacks to be found in gout, which sometimes manifests itself in anomalous visceral seizures of the kind suffered by our patient? But he had never had gout; he had never lived the life which leads to it; he was too old for the first manifestations of the gouty inheritance, and he had no signs of the gouty habit beyond those which may be found in every aged man.

It is true that the country home of the patient was alleged to be malarious, and that several ponds stood near the house. On the other hand no evidence of malarial disease was to be found, either in the family of the patient or among the people dwelling in neighbouring parts. In these circumstances we prefer confessing our ignorance to advancing an inconclusive hypothesis.

I have ventured to bring this case before the Society, because in the character, assemblage and progression of the symptoms, in the frequency of the relapses or recurrences, in the severity of the rigors preceding them, in the age of the patient, and in the happy issue of his illness, the case, in the annals of medicine, is rare, if not unique; because in the records of exceptional cases are sometimes to be found not only unexpected helps to the advancement of our knowledge, but also criteria whereby the accuracy of our generalisations may be tried, and especially because the history of the case is one which raises anew those problems concerning the nature of pneumonia now so widely and warmly discussed throughout the profession. In pneumonia, is the local lesion the sole cause of the accompanying fever? or is pneumonia a fever which has inflammatory consolidation of the lungs as one of its local manifestations? And if pneumonia be primarily a fever is it due to a poisoning or a parasite?

As, however, these questions have been recently discussed with as much breadth and as much minuteness as the present state of knowledge would permit, it is not my intention to deal with them on this occasion. But among all the questions raised concerning the nature of pneumonia there is still one, and a very important one, which has been almost wholly overlooked. Every one appears to have asked if pneumonia is not a fever, but scarcely any one has asked if pneumonia is really an inflammation. In the admirable work of Dr. Sturges, who regards pneumonia as a fever begetting inflammation, it is said that in pneumonia the phenomena of inflammation are conspicuously exhibited; that in it both the clinical and anatomical requirements are satisfied; and that there are present all the classical results of the inflammatory process—pyrexia, exudation, migration of leucocytes; cell proliferation and excess of tissue change. Pneumonia, he says, is not only an inflammation, but it is the pattern and model of all inflammations.

Now, I propose to say a few words upon this question which has long occupied my thoughts, and which I dealt with at some length in a lecture delivered at the College of Physicians in 1866.

If we proceed to examine critically a bit of hepatised lung, three chief points demand attention: the solid exudation, its relation to the alveolus, and the condition of the alveolar walls.

When recent the pneumonic exudation consists essentially of leucocytes, red blood discs, hyaline globules, granule cells, and desquamated epithelium, all interpenetrated and held together by a delicate network of the finest threads of fibrine. For our present purpose the epithelial cells may be dismissed from consideration. Now, collectively these elements resemble a capillary blood clot, and not an ordinary fibrinous exudation. Everywhere you can see signs of regressive involution, and nowhere signs of true advancing development. However "healthy" the exudation, and however early you may examine it, the number of red discs present in it often equals and sometimes much exceeds the number of the leucocytes, whilst many of the leucocytes may be proved to be nothing more than red discs undergoing histolytic changes. Furthermore, the fibrinous network differing in many respects from that of an ordinary inflammation resembles closely that which is formed in small blood clots.

When we examine the relation of the exudation to the alveolar wall, we discover no evidence of any organic connection between them; and from each pneumonic alveolus a practised hand, furnished with a needle, can turn out the little lump of exudation without apparent injury to the alveolar walls.

Nor does a critical study of the alveolar wall in a hepatized lung furnish us with any conclusive evidence of the inflammatory nature of a pneumonia. With two exceptions no manifest structural change can be found therein. Instead of being swollen and very red, as one would expect them to be after being the seat of an inflammatory exudation, the alveolar walls are pale, thin, blanched as if from loss of blood, and devoid of any sign of active textural change. Furthermore, many of the alveolar blood vessels are occluded, a fact which distinguishes the pneumonic from every other acute parenchymatous inflammation. In nephritis, for example, Johnson has shown us not only that the blood vessels of the acutely inflamed kidney are not occluded, but that they are enlarged. The resemblance of a pneumonic exudation to croupous exudation of mucous membranes, and of the pleura, and even peritonæum has been admirably set forth by Hamilton; but in my opinion the conditions are far from being identical, and in croupous inflammations of the mucous membranes and the pleuræ structural changes may be found which do not exist in the pneumonic lung. Nevertheless, Hamilton himself says, what I too have said before, that croupous inflammation is not to be reckoned as a true inflammation.

Here then in pneumonia is a sometimes enormous consolidation, and yet, as I believe, no conclusive signs of a prolonged inflammatory process: there are signs of slight exudation and of great extravasation of all the elements of the blood; but no signs of active cell proliferation in the exudation, no signs of interstitial structural change in the alveolar walls, and no signs of an organised bond between them.

How is all this to be explained? Is it sufficient to say that the alveolar tissues are of such a sort and supplied with blood of such a kind that they cannot undergo any other manifestation of the inflammatory process? But this cannot be the explanation. For when the alveolar tissues are cut by an instrument, or ploughed up by a bullet, or irritated by bits of stone or steel, or pressed upon by indurated tubercles or invaded by inflammatory processes from the pleuræ, air tubes, or interlobular tissues, they behave like any ordinary part, and produce an exudation which soon becomes rich in migrated leucocytes, proliferating cells, and developmental tissue change.

Once again, then, what is the explanation of the pneumonic consolidation? At present, for my own part, I can say only that the facts admit of the most complete explanation on the assumption that the consolidation is the result of an active congestion (or aborted inflammation) of tissues in which the blood vessels, almost unsupported and naked, give way to sudden pressure sufficiently prolonged, and permit, with a slight exudation, the extravasation of all the elements of the blood before the inflammatory process, if begun, can be carried to its classical completion in cell proliferations and textural development.

If you still say that the pneumonic consolidation is an inflammatory exudation, I will still reply that the rapidity with which hepatization occurs, the rarity with which it remains, and the rate at which it disappears, are incompatible with the history of the products of any other recognised inflammation.

But in a communication of this kind, I must not weary you with further histological details. Returning, therefore, for a concluding moment or two to the case which has led me into this long digression, I will anticipate and answer a question, which, in a practical society, such as this is, will surely be put to me when I conclude.

What were the general principles which guided us in the treatment of our patient? It might very justly be replied that there are no general principles in medicine—that it is one of the most unprincipled of arts; that every case is a law to itself; and that only in the patient himself, in the assemblage of conditions constituting his disease, in the character of his surroundings, and in the special ways in which death is threatened are the rules of treatment to be found. Well, as the result of our study of all these things, we gave our first attention to the man and the next to his malady. In the first place, we endeavoured to support life by relays of nourishing food, freshly prepared, not too liberally given lest we should overcharge the pulmonary vessels and dangerously increase exudation, and not too frequently given lest we should outrun the digestive powers and increase the patient's peril by filling his bowels with decomposing stuffs.

In the second place we endeavoured to promote the vigour of the circulation by the administration of alcohol in such forms and doses, and at such intervals as seemed best calculated to strengthen and steady the ventricular contractions without interfering with the chemical changes of digestion, or dulling too deeply the nervous sensibilities.

In the third place, we endeavoured by hot spongings of the skin, by gentle but regular evacuations of the bowels, by light, air and moderate warmth, by the avoidance of noise and fussiness, and by all quiet, cheerful and encouraging ways, to keep the man and his mind in the general conditions most favourable for physiological resistance, endurance and repair.

In the fourth place, we tried by alkaline diaphoretic salines to promote secretion and to keep the mucous and cutaneous surfaces at work, and by quinine in full and frequent doses to lower the temperature, restrain the rigors and control septic involution.

And lastly, when in the course of the malady, unexpected and inexplicable symptoms arose, we treated them as best our physiological or empirical knowledge would permit, regarding carefully on the one hand the general condition of the patient, and on the other hand the inroads made upon his breathing capacity.

Not high scientific treatment this, you will say. Perhaps not. But for any adverse criticisms upon this point Mr. Newham and I will console ourselves with the reflection that the patient recovered and is well.

The library and museum of the Royal College of Surgeons will be closed on and after Thursday the 25th instant (Christmas-day), until Monday the 29th instant.

CLINICAL LECTURES ON THE DISEASES OF WOMEN.

By J. MATTHEWS DUNCAN, M.D., F.R.S.
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III.—*On Polypus Uteri.*

This is the simplest subject to describe in this whole course, and in some respects the most pleasant; for it is easy to diagnose a polypus, and easy to remove it and cure all the evils it may have entailed. Like a fibroid, a polypus is almost always a healthy (!) not a malign disease. No doubt you do occasionally have malignant polypi, adenomatous in structure, but they are rare, and generally form only a small part of more extensive malignant disease. Polypoid masses of malignant structure are sometimes separated and discharged from the interior of the uterus, and give you valuable diagnostic information, derived from histological examination. There is another polypus which I dislike extremely to meet with, for it is of bad omen; a small, sessile, or nearly sessile, simple, mucous polypus of the cervix, in a case where the body of the uterus is enlarged with suspicious characters, and generally in elderly women.

There are many false polypi. A bit of adherent chorion, or of adherent placenta, cannot be called a polypus; but a bit of placenta, partially adherent, hanging by a stalk, is called a placental polypus. It is enveloped in old clot, and consequently smooth on the surface, and has to be examined after removal to be recognised. A fibrinous polypus is a false polypus. It occurs after delivery or abortion, is of considerable size, as of an egg, is generally lying in the cervix, and broadly attached to the placental site by a thick neck, scarcely a stalk. At its attachment chorionic structures in small quantity are generally found, and the mass of the polypus is formed of blood. This polypus is firm enough to maintain its shape when removed by avulsion. On examination, its outer surface is formed of a thick yellow fibrinous layer, and inside is a dark firm blood-clot. It behaves and is treated as a polypus, and is not very rare.

A fibroid in process of enucleation is a kind of false polypus, often taken for a true one. Here the fibrous tumour is bare, having no mucous or muscular envelope, or only a partial envelope. It behaves quite as a true polypus does, and is treated in the same way. When you seize it by volsella and pull, it often comes off, having no real stalk, but only incomplete attachment. This false fibrous polypus is not to be confused with a fibrous polypus whose lowest part has sloughed off or is sloughing off, the mucous and muscular coverings being so removed, and the subjacent fibroid laid bare. Yet another kind of false polypus is a fungous mass of so-called endometritis hanging through a dilated cervix.

The great polypus of the uterus is the fibrous polypus growing from any part of the uterus (or even of the vagina, or of the Fallopian tube), but most frequently from some part of the body of the organ; never found in the proper uterine cavity, not rarely in the cervix,

most frequently in the vagina; its pedicle or stalk passing from its site to its insertion. A fibroid has been often observed in all stages of enucleation; but a fibroid has not been so, nor its history well traced, from being an embedded tumour to the state of a sessile tumour and then of a polypus. This process has, nevertheless, been often described, but I doubt the truthfulness of the description. Sometimes a fibrous polypus has only a mucous envelope; generally it has also a muscular envelope, which is thicker near the stalk than far from it. These envelopes are sometimes greatly thickened by œdema. The enveloped tumour has almost always all the characters of a fibroid, and the bleeding from it also owns an identical pathology. You may, in the same uterus, have one or more embedded fibroids, and another one polypoid. A fibrous polypus may be of any size that can get accommodation in the pelvis, and size may increase the difficulty of removal but has little influence over the amount of blood lost.

Sometimes the polypus is not a distinct mass with envelopes, but a direct outgrowth of muscular and mucous structure continuous with the uterine wall, from which it takes its origin.

Besides fibrous you have the much more numerous mucous polypi; and there may be several of these in the same uterus. They are of various kinds, simple mucous polypi, never large; or fibro-cellular, that is, with a rounded mass of connective tissue having no definite arrangement of fibres, often with some muscular tissue, inside the mucous membrane enveloping, and sometimes as big as an egg, but rarely so large; or glandular, attached to the cervix, or body, oftenest to the cervix, and constituted of open or closed hypertrophied and distended Nabothian or other glands of the part, one or more; or channelled, a variety of glandular cervical, composed of large open glandular channels or cavities, sometimes quite empty. These mucous polypi are all of less importance than the fibrous; less in bulk, bleed less.

A polypus has no symptoms constantly attending it, being frequently found accidentally on examination. In this way you often meet with mucous polypi of the cervix in elderly or old women. Sometimes you find one when investigating a case of vaginal discharge. But, generally, it is some degree or form of bleeding which, leading to suspicion of it, leads also to the examination which results in its discovery. It is not rare for a mucous polypus to be so soft, glabrous, and mobile, as for a time to elude detection, even by an experienced finger.

Most polypi are vaginal and easily discovered, but bloody, or purulent, or serous uterine discharge may so excite your suspicion of a polypus or other disease higher up as to impel you to further investigation. This is effected by dilating the external os of the cervix; and fortunately further dilatation is rarely required, for a polypus imprisoned above the cervix is extremely rare, and always mucous.

Dilatation is effected by tangle tent kept *in situ* by a vaginal plug, all in the usual way, and easily.

You may have a small mucous polypus above the cervix, perhaps by the side of a projecting sub-mucous fibrous tumour; or you may have an intra-uterine fibroid nearly polypoid. The dilatation and further digital examination of the interior of the uterus proper is, as I have in another lecture told you, neither an easy nor quite a safe operation. You must not proceed to do it without good and sufficient reason.

You can scarcely make any mistake about a polypus, except when it is of the size of a rather small egg and has its pedicle passing through the cervix. Then you must make sure that you have not an inverted uterus —chronic inversion. A probe passed by the side of the supposed pedicle is quickly arrested if the case is one of inversion, passes easily into the uterine cavity if it is not so. If, after this, you still feel insecure in your diagnosis, you can easily complete it by a finger in the rectum feeling the absence of the uterine body from its proper place, or by bimanual examination.

For the treatment of polypus you need only two instruments, a volsella to seize and perhaps pull down and a curved scissors to divide the pedicle. Some small mucous polypi you simply seize by a uterine forceps and tear or twist off; but most are treated by volsella and scissors. You should wash out the vagina with antiseptic lotion as you begin and after you have done. By the volsella you seize and fix the polypus. If it is a mucous polypus you cannot drag by it, for it will tear out; but if it is a fibroid, and of large size, you may find it advantageous to pull it down even to the vulva, thus getting easy access to the stalk. If it is very large, as big as a fœtal head, you must pull it out to get access to the stalk. To get it out you may have to slit the perinæum, as you are recommended to do in some cases when the head is passing over it in labour. Or, you may cut out wedges of the tumour to reduce its size; or get it out gradually by what is called the spiral cut, that is, cutting on and on without detaching; in this way getting a longer and longer flap of the tumour away. If the tumour is truly intra-uterine, having an imperfect pedicle, or being sessile, your best plan is to enucleate by avulsion. After the operative removal no further treatment or interference is required—no plugging, no cauterising.

As bleeding is the evil to be cured and the woman is already often very anæmic, it is natural to fear loss of blood as an immediate result of the removal of the polypus; and up till twenty or thirty years ago the method of operating was planned with a view to obviate this risk.

It is now known that bleeding after the operation very rarely occurs. I have never seen it after the removal of a fibroid, and the number that has passed through my hands is great. I have seen it after the removal of a glandular polypus, and after the removal of a fibro-cellular polypus, but in neither case was it very alarming, and it was arrested by a simple vaginal plug. In the second case it was secondary, that is, it did not begin till many hours after the operation. I have seen dangerous hæmorrhage after the removal of a sessile mass of the size of the last phalanx of a finger projecting into the cervix This was arrested by a firm plug and you observe that this was not a case of polypus. You may, therefore, without hesitation proceed uninfluenced by dread of hæmorrhage; preferring, of course, the simple volsella and scissors to

the complicated and slow proceedings of thirty years ago.

The absence of hæmorrhage in the removal of fibrous polypi is explained by the powerful retraction of the pedicle. You have a pedicle of some length, say an inch, and you cut it through the middle, and after the operation you cannot feel the half inch left, it is destroyed by retraction. The half inch cut away is also not to be found for the same reason, and in its place you find, not a projecting half inch of pedicle, but a cup-like depression.

All fibrous polypi are not distinct tumours; sometimes they are muscular outgrowths continuous with the uterine wall, and the stump of the pedicle of one of these may bleed. I have removed several without any hæmorrhage, unless the case I have just spoken of, the phalanx-like tumour, be an example.

But hæmorrhage is not the only danger attending this operation. You may have septicæmia and death. The new and simpler mode of operation is recommended by its involving much less risk of this dangerous affection than the slower old methods. I have had in all my practice, including a very large number of operations, I am sorry I cannot say how many, only one surgical calamity—one death—and it occurred in "Martha," a most lamentable and most lamented death. The case was a simple one—a common fibrous polypus of the size of an apple and a stalk as thick as your little finger. It was removed easily by volsella and scissors. In a few days the patient was dead. A *post-mortem* examination was made and nothing peculiar was found. The little wound near the internal os uteri seemed quite healthy. In no other case have I had even alarm.

THE THYROID GLAND, ITS RELATION TO THE PATHOLOGY OF MYXŒDEMA AND CRETINISM, TO THE QUESTION OF THE SURGICAL TREATMENT OF GOÎTRE AND TO THE GENERAL NUTRITION OF THE BODY.[1]

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Lecture I.

[Abstract].

The object of the first lecture is to review the structure of the Thyroid Gland, to narrate the methods of experiment, and to detail the clinical phenomena resulting after its ablation. It is further shown that myxœdema, cachexia strumapriva and cretinism are closely related to this gland and the question of its removal. Mr. Horsley proposed to support the view, which was first clearly formulated by Dr. Felix Semon, that cretinism, congenital or acquired, myxœdema and cachexia strumapriva, are one and the same condition. Further, it is urged that this condition arises from arrest of the function of the thyroid gland. It is pointed out that although the thyroid gland had formed the theme for much surmise, especially in relation with cachexia strumapriva, only 18 months since did it first become invested with a definite physiological importance. This advance was due to the labours of the Reverdins père et fils and Kocher, who published cases of persons from whom they had removed the thyroid gland, and who subsequently lapsed into the state called cachexia strumapriva. The discussion which followed as to the justifiability of removing goîtres helped on our knowledge, bringing several important facts to the surface.

The anatomical structure and position of the thyroid gland is first described. The thyroid gland, then, is bi-lobed, encapsuled, having its substance divided by trabeculæ of connective tissue which, starting from the capsule, run into and divide up the gland tissue. Thus is formed a stroma with large alveolar spaces. Running in the course of these trabeculæ are very numerous and large blood vessels and lymphatics. These last have been shown by Frey, Boéchat and Baber to form large lacunar spaces immediately outside the margins of the alveoli. The nerves have at present been associated in function with the vaso-motor system. Mr. Horsley believes that the thyroid body must be considered to be a gland. He urges that this view has support lent to it by the history of the thyroid's development, which is quite similar to that of a racemose gland.

Although an anatomical proof is yet wanting of the intercommunication of the acini, yet, as is pointed out, Virchow and Boéchat cling to their belief that such intercommunication exists. Nor is the theory that it is a gland of modern acceptance only: Theophile de Bordeu taught that there existed minute ducts leading from the thyroid into the trachea, and Ricou held that a similar duct existed between it and the larynx. Further support of the view that the acini of the thyroid form part of a large ductless gland is found in their structure and relation. In an early stage they are composed of columnar epithelium, which later becomes cubical. Their walls are surrounded by a rich capillary network, while their lumina contain a glairy fluid. This fluid Kühne and Eichwald aver contains mucin, while Gorup-Besanez believes it differs from that body in being soluble in acetic acid. These facts would, then, seem to support the views advanced by Baber and others, that the mucinoid contents of the acini are excreted from the blood by the epithelium cells, and again thrown into the circulation through the channels of the large lymphatics.

Other views of the function of the thyroid have been brought forward. One, really advanced by Mr. Simon, although usually attributed to Liebermeister and Guyon, that it regulates the cerebral circulation; and another that it secretes something which is necessary to the nutrition of the brain.

Mr. Simon found that in many vertebrates the thyroid is in close relation to the cerebral arteries; and Guyon, drawing attention to the fact, capable of easy verification Mr. Horsley says, that after prolonged effort, pulsation in the carotid branches ceases, states that this is beneficial to the cerebral circulation by lessening the blood supply to parts from which blood return is by the conditions of the experiments impeded. Guyon thinks the pressure of the thyroid upon the common carotid can effect this result. Mr. Horsley does not consider the arguments which support the view above enunciated of much value. Luschka's view is, that the thyroid acts simply in a mechanical way, and protects the carotid from the pressure of the contracting neck muscles. The second theory, due also to Mr. Simon, is too limited in range, since although profound changes are promoted in the nervous system by altered conditions in the thyroid, yet such changes are present all over the body. It would seem that all the views held up to 1883 were incomplete and too narrow in scope.

[1] Being two of the Brown Lectures delivered at the University of London, December, 1884.

Mr. Horsley next considers the results following thyroidectomy. Kocher has shown that the subject of the ablation becomes cretinous. Schiff, Wagner, Sanguirico and Canalis demonstrated that dogs in which thyroidectomy is done become idiotic and die comatose. Mr. Horsley, working with monkeys, has found that when the thyroid is removed they assume the condition called by Dr. Miller Ord myxœdema. This condition is, Mr. Horsley believes, one stage in a general and profound change occurring in the nutritive processes of the human frame, consequent upon removal of the thyroid.

The details of the operations may briefly be noticed. The anæsthetic employed was ether, strict antiseptic precautions were used. Dividing superficial structures in the middle line, the fascia between the sterno-hyoid muscles was cut through, while the isthmus was isolated by a blunt instrument, and a cat-gut loop placed around to produce traction if needful. The lobes were separated from the false capsule by means of a blunt instrument and enucleated, save where the arteries entered, and these were seized with forceps and torn out of the gland, thus obviating bleeding and the necessity for applying ligatures. The dressing used after uniting the wound-edges with horsehair sutures was dry gauze and collodion. Healing was complete in three days.

The *post-mortems* made upon these cases showed that in no case were the recurrent laryngeals or the sympathetic trunks injured, a fact which goes far to disprove the theory that myxœdema is a primary disease in, or injury to, a sympathetic nerve.

Schiff's first experiments, we are told, were in the first series performed under septic conditions, and so are out of court; his second series, performed antiseptically, agree with those of Wagner, Canalis, and Sanguirico, and these Mr. Horsley quotes in the sequel.

Following thyroidectomy in monkeys, the phenomena which supervene are :—in about five days anorexia, constant slight fibrillary twitching appears in the face, hand and foot muscles, which disappear upon muscular effort. In a day or so appetite returns, but the animal grows pale and thin. The fibrillary tremors increase and affect the whole body, the animal becomes completely imbecile, while his movements are languid and paretic. Then puffiness about the eyelids and swelling of the abdomen appear with increased hebetude. In the last stages the temperature falls to subnormal, the tremors disappear in the same order as they came, while extreme pallor of skin supervenes, leucocytosis taking place, to be followed by oligaemia. Death occurs in coma, usually in five to seven weeks after the thyroidectomy.

Examining the symptoms more in detail, those related to the *motor apparatus* come first.

In the dog, and in the cat although more rapidly, fibrillation, which is usually paroxysmal, comes first, and according to Wagner, this is succeeded by clonic spasm, tetanus next appears, and finally rigidity.

In monkeys, on fifth day, a slight fibrillation of the intrinsic muscles of the (1st) hands, (2nd) feet, and (3rd) jaws appears. This gives way to a steady constant tremor, which resembles the tremor elicited in ankle clonus. The grouping of the fibrillation into paroxysms occurs on the second or third day. The paroxysms assume so violent a character as to simulate convulsion; but Mr. Horsley has never seen true tetanus in a monkey. Tracings taken in various stages elucidate those points. Thus in dogs death often occurs when the paroxysmal stage is at its highest; in monkeys it supervenes ten days or so after all paroxysm has passed away, leaving only fibrillation.

The rate and character of these twitchings are then briefly compared with similar twitchings or tremors all occurring in paralysis agitans and allied conditions.

The origin of the tremors is then considered. Schiff showed by dividing the motor nerves that these tremors were probably central. This experiment, however, does not altogether preclude the possibility of the tremors being idio-muscular.

Mr. Horsley ablated the upper arm centre in the cortex, producing total brachioplegia, but without stopping the tremor. The evidence in favour of the tremor being due to the bulb or cord is, first, they are lessened by voluntary movements, second, increased by inhalation of ether; and, third, reflex irritation causes it to disappear. The rate per second also corresponds to what Lovèn finds it to be in frogs, and what Mr. Horsley believes it to be in man.

Paresis and rigidity co-exist with the tremors in all the muscles affected. The former comes on gradually, but the rigidity varies directly as the force of the tremors. The paresis never becomes a complete paralysis, but wrist drop and the "paralytic posture" are well shown. In two cases well-marked hemiplegia was present, appearing suddenly and obviating the tremors in the limbs, but not affecting those in the jaw muscles.

In one case, the attack, one of functional hemiplegia, as was shown by the *post-mortem*, lasted an hour, and then the tremors reappeared.

Sensation seems little affected; in severe paroxysmal stages some delay of sensation may occur and slight anæsthesia.

Reflexes. The superficial are diminished; the deep knee-jerk was found, unless rigidity had set in; ankle clonus was never found.

The centres in the lumbar cord perform their functions normally. Bulbar symptoms have rarely been found, nor does evidence exist pointing to a vaso-motor disturbance.

The affections of the higher functions of the cortex cerebri are a slow onset of hebetude, which ends in partial or complete imbecility. In this state they present quite a similar appearance to that of severe cretinous and myxœdematous conditions.

The emotions vary but little; these monkeys were easily enraged, just as are idiots. A rarer symptom was occasional attacks of dyspnœa. Peripheral nervous system. The pupils always reacted normally.

The blood pressure steadily falls. The blood suffered a steady decrease of its red corpuscles for about 14 days, at which time oligæmia persisted until death. A steady increase of white corpuscles occurred reaching its height when the red corpuscles were fewest. The tendency to clot is lessened, the "buffy coat" becoming well marked. Mucin, absent from the blood of healthy monkeys, is present in considerable quantities after thyroidectomy. The amount present varied directly as the duration of the monkey's life. The proteids of the blood remained normal in total amount, but there was an increase of the serum globulin. Dr. Halliburton, who conducted the chemical examination of the blood and tissues, also found that the serum albumin was not differentiable into the three forms usual in the normal monkey.

The affection of the *respiratory system* was the dyspnœa noted above. Mr. Horsley regards it as of bulbar origin, from the suddenness of its onset and its subsequent speedy disappearance, and the absence of other physical signs. No laryngeal stenosis or paralysis of the vocal cords existed, nor were the recurrent laryngeal nerves ever found to be abnormal.

The Alimentary System.—A point of extreme interest occurs in the huge hypertrophy of the salivary glands which appeared in the monkeys. This hypertrophy presents the appearance of mumps, and is due, as analysis shows, to the muciparous swelling of the cells. The parotid gland further takes on in these monkeys a muciparous function, while it normally

secretes only a serous saliva. To the consideration of this point Mr. Horsley returns later, giving ample proof of his assertion that, in monkeys deprived of their thyroids, the parotid becomes a mucin-forming gland. The condition of the appetite undergoes curious changes. Shortly after operation it fails, then it soon regains its former state, and becomes greatly increased until the animal becomes ravenously hungry. The appetite again fails just before death. Mr. Horsley confirms the statement of Credé and others, who assign a correlation between the spleen and the thyroid. In his experiments he found, during life, a sensible increase of the splenic dulness after removal of the thyroid, and *post-mortem* examination showed a considerable increase in the size of the spleen. The marked swelling of the abdomen, which forms so striking a symptom, was, Mr. Horsley found, to be due to hypertrophy of the great omentum and some distension of the intestines. There was some, but not much, peritonæal fluid. The fluid, however, contained mucin.

Renal System.—The urine examined qualitatively appeared normal; occasionally glycosuria was present for a day or two. Throughout the life of each animal a trace of mucin was present in the urine, but this, Mr. Horsley says, was not pathological.

Cutaneous System.—The skin showed marked pallor; it was, Mr. Horsley believes, of normal moistness. The hypertrophy and swelling such as occur in myxœdema were reproduced in these monkeys. The swelling of the eyelids and face gave them that facial expression so striking and pathognomic in the myxœdematous human subject. There was atrophy of hair in the amimal which lived longest. The baldness appeared first on the right side at the root of the tail, then on the left side. The situation suggested to Mr. Horsley a similarity to bed-sores in man. In some monkeys whose hair was cut, little or no growth of hair occurred in the above situations. The constitutional change is best estimated by careful thermometric observations. From such Mr. Horsley finds that, after thyroidectomy, at first there is a slight rise, followed by a fall, which in a few days brings it to the normal level—the temperature, in fine, of traumatic fever. With the onset of the tremors an exaggerated morning fall and evening rise occurs. Schiff's observation that high fever supervenes in dogs during the tremor stage has, Mr. Horsley finds, no counterpart in monkeys. After the most severe stage of tremor the temperature gradually falls, so that at death it has become subnormal. This lowering of temperature shows itself by cold extremities and cold skin, but shivering when cold air blows against the skin has never been observed by Mr. Horsley. The symptoms will, when taken together, present a picture which may well be described as pathognomonic of myxœdema. The pathological appearances presented after death are detailed in the second lecture.

Lecture II.

[Abstract].

In this lecture the *post-mortem* appearances are described which are found in monkeys from which the thyroid gland has been removed. The subcutaneous tissue was swollen, jelly-like, bright or shining and very sticky. This latter quality Mr. Horsley has never met with, save in these experiments. The increase of connective tissue is most marked in the triangles of the neck and hypochondria. In one case this tissue was continued into the muscle, and in this case mucin was found in the muscle. Similar tissue was found in the body-cavities, the omentum and mediastinal tissue were loaded, and a like condition obtained in the auriculo-ventricular groove. Accompanying this change was a remarkable atrophy of the body fat, such as is found in children after a long wasting disease. In fine, the connective tissue of the whole body showed hypertrophy of the fibrous tissue with mucoid transformation of the ground substance, together with atrophy of the fat. In the bursæ no changes were seen; in some cases congestion of the sygnovial membranes of the larger joints was seen, although no effusion was present. The bones and cartilages were but little altered. In the muscles only an increase of connective tissue was detected. The heart is only affected in a manner the same as the other tissues. No changes existed in the respiratory system save in one case in which œdema of one lobe of the lung was present.

In the alimentary tract profound changes are met with. The salivary glands are found greatly hypertrophied, each lobule being several times its natural size. A glairy translucent fluid transudes on section of the gland. The parotid, normally a secreter of serous saliva, seems pressed into the service for the secretion of mucin. This alteration of function is shown both by the macroscopic and microscopic appearances. Chemical analysis shows that while the normal parotid contains no mucin, in the parotid of these monkeys as much as 1·21 per thousand was found. Likewise in the submaxillary gland in the healthy state the mucin proportion is ·01 per thousand, but becomes 4·6 per thousand in the diseased.

The mucous membrane throughout the whole alimentary tract is swollen, and an increased quantity of mucus is found in the dejecta.

The tongue, Mr. Horsley thinks, was enlarged, but he does not state this certainly.

The spleen was hypertrophied, but presented a normal appearance.

The other viscera showed simply increased pallor.

The Nervous System.—The naked eye appearances of the brain and cord are simply those of anæmia and atrophy. The meshes of the pia mater were distended with fluid. (The microscopic appearances are deferred.)

The peripheral nervous tissues present in these cases no departure from health; careful microscopic preparations of the sympathetic and musculo-spiral nerves failed to detect disease.

Mr. Horsley then passes in review the various theories promulgated with respect to cretinism and goître, and having contrasted the symptoms evinced in myxœdema (Dr. Ord's account), in cachexia strumapriva (Dr. Kocher), and cretinism (Dr. Hilton Fagge and others), he states that he has no doubt that these conditions are really the same. He refers them to some profound changes which are called forth by injury to, or ablation of, the thyroid, although he does not deny that some other agencies at work may produce such results, although he contends they will do so *quâ* the thyroid.

Dr. Kocher taught that the myxœdematous symptoms which followed his removal of the thyroid for disease were due to chronic asphyxia, arising through atrophy and softening of the trachea. This atrophy followed, he assumed, the ligation of the thyroid arteries which supply that structure. But, as Mr. Horsley points out, many cases of narrowing of the trachea exist, but in none have myxœdematous symptoms arisen. And further, in Mr. Horsley's experiments, the trachea and gullet remained healthy while myxœdema arose.

Dr. Hadden's view that myxœdema is due to capillary spasm, from sympathetic irritation, is negatived by the experiments of Schiff, who irritated the sympathetics without causing myxœdema, as well as by the fact that in all the cases examined by Mr. Horsley he failed to find any abnormality about the sympathetics. He points out that a mere increase of con-

nective tissue cannot be regarded as more than a by-phenomenon of the general tissue hypertrophy found in myxœdema.

Mr. Horsley then formulates his facts to guide as accurately as possible to the ultimate elaboration o a theory as to the true pathology of myxœdema.

I. Anatomical.

(A.) The thyroid appears to consist of two portions : (1) a glandular, consisting of highly vascular acini, which excrete a mucoid substance—a mucin-excreting portion ? and (2) highly vascular lymphoid nodules —hæmatogenous function ?

(B.) Excision of the gland is followed by a great increase in the quantity of mucin found in the tissues, an increased activity of the mucin-producing glands, and a change in function of other non-muciparous glands whereby they become mucin formers.

(C.) Profound changes also ensue in the blood. The red corpuscles are decreased with leucocytosis, the coagulability is lessened, and its albumins are altered in character.

(D.) Nerve symptoms also appear, changes taking place in the lowest motor centres causing rigidity, tremors, and paresis. Changes occur in the higher psychological centres, whereby imbecility and cretinism occur, followed by death, which usually occurs in a condition of coma.

Reviewing these facts, Mr. Horsley points out that it is clearly shown that removal or alteration of the function of the thyroid is the cause of the general bodily condition. Whether such changes may be due to the intermediate action of the vaso-motor, or a trophic centre, it is impossible to say. When it is remembered that the thyroid body contains a mucinoid material, and that after removal mucin appears largely in all the tissues, it becomes a question whether the thyroid may not be an excreting gland, the removal of which, as is usual in analogous cases, induces death. In support of this, it is urged that removal of one lobe causes hypertrophy of the other. If subsequently the second lobe be removed, myxœdematous symptoms arise.

Mr. Horsley next addresses himself to the surgical treatment proper to goître.

The conditions demanding treatment are (1) Hypertrophy, or adenoma, with or without some amount of cystic degeneration, or fibroid overgrowth ; (2) cystic disease ; (3) malignant new-growth. In this last case only removal of the gland can be of any avail. Adenoma occurs as exophthalmic and simple goître. The former has been relieved, it is said, by total or complete removal, and this treatment seems to hold out most chance of benefit.

Injection and removal are the two modes of treating simple goître.

Injection with laceration of tissue, as formerly practised by Billroth, is very dangerous, as secondary inflammation may arise. Simple injection has caused sudden death. This has been attributed to the injection of air into a wounded vein, but Mr. Horsley believes this is a mistake, and alleges that it is due to the injection of the iodine into a vein, and the iodine travelling to the heart and causing thrombosis. Experimentally, Mr. Horsley has found this actually to happen. To avoid this danger, Demme's plan is advised. He waits before injecting, to see by the flow of blood whether a vein has been wounded.

Excision of the thyroid as a whole, it is said, is absolutely unjustifiable, especially as excision of a part causes the goître to shrink. Mr. Sydney Jones removes the isthmus between silk ligatures, and obtains good results.

Royal Medical and Chirurgical Society.—The Library will be closed on December 25th, 26th, and 27th.

REPORT OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.

A CASE OF VILLOUS CARCINOMA OF THE PLEXUS CHOROIDES IN A BOY OF THREE YEARS OF AGE.

By HENRY ASHBY, M.D., M.R.C.P.

(Notes by H. Chester Nance, M.R.C.S.)

John D., aged 3¼ years, was admitted to hospital March 10, 1884, with the following history :—His father died, aged 35 years, in the Royal Infirmary, of a "tumour of the spine" (tumour compressing cord). Six weeks before admission, his mother noticed his right arm was weak and shook when he attempted to use it, his face was drawn to the left when he smiled, and he dragged his foot in walking. His speech also was affected, being slow and difficult. On admission it was noted that while he could stand alone, his gait was uncertain, the right leg shaking when he attempted to use it, his grasp with the right arm was feeble, and it performed rhythmical movements when he attempted to grasp anything. Patellar reflex is diminished on the right, normal on the left ; the muscles of the right thigh and leg are very irritable. There is no marked facial paralysis. There is no loss of sensation ; he is fairly bright and intelligent. Discharged April 20th, much in same condition. Re-admitted May 1st. Mother states he is much weaker, complains of headache, and his arm and leg "work like a clock." He cannot stand alone. He lies quietly in bed, hardly taking any notice of anything ; the right elbow is flexed to a right angle, the wrist extended, the fingers clenched, the right leg is drawn up, the knee bent, the ankle extended. There is apparently no loss of sensation, the pupils are equal and act to light, there is double optic neuritis. May 5.—Vomited this morning, answers "yes" and "no" to questions, and sometimes shakes his head ; some facial paralysis of right side, left arm and leg shake when he attempts to use them. May 9.—Convulsions to-day, left arm and leg worked most ; there is ptosis of left eye-lid. May 24.—Is much emaciated, lies quite unconscious, both legs flexed and rigid, knees touching chest, feet extended, both elbows flexed, hands clenched, is frequently convulsed. Remained in such state till June 13th, when he died.

Post-mortem Examination. — Body extremely emaciated. No important lesions except in brain. Skull thin. Veins on surface injected. Much serum in lateral ventricles. On making vertical sections through the brain, it is noted that the left lateral ventricle is occupied by a soft lobulated tumour, which has grown more especially outwards compressing the optic thalamus and neighbouring parts ; it has also bulged the roof of the ventricles. It has extended towards the right side, but does not appear to have exercised much pressure on the right thalamus, at least there is no evidence of it *post-mortem*. The tumour is soft and vascular, and is apparently connected with the choroid plexuses, probably having commenced in the left choroid plexus of the third ventricle. It has not extended much forwards, but has spent its force in growing outwards, compressing and almost obliterating the left optic thalamus, internal capsule, and in a lesser degree the lenticular nucleus ; it has also grown posteriorly, occupying and distending the posterior and descending cornua. The microscopic

structure of the tumour is peculiar, resembling in some respects the tumour of the choroid plexus, figured by Ziegler in his "Lehrbuch der Pathologischen Anatomie" as a "Papillöses Carcinom," though in the present case there is no colloid degeneration, and no cell-nests were detected. Sections of the tumour show numerous dilated capillaries, some arranged in loops, freely branching and anastomosing with one another; they are distended with red corpuscles, and their walls resemble those of ordinary capillaries. The vessels are supported by a delicate stroma only present in some places, and extending very sparsely through the growth. The spaces between the strands of the stroma are occupied by irregularly shaped, large, nucleated granular cells, some being elongated or columnar in shape, and forming a layer, lining the spaces formed by the stroma. Some of the cells are larger than the rest and contain many nuclei. No inter-cellular stroma can be detected. The tumour is very soft, and frozen sections when thawed at once become diffluent. It is evident the tumour was of rapid growth. It did not infiltrate, but displaced and softened the brain substance. There were no secondary deposits.

Remarks.—The tumour seems to have originated in the choroid plexus of the third ventricle, to have grown outwards and to the left, compressing the optic thalamus and internal capsule, giving rise to a paresis of the right arm, leg, and face, and rhythmical movements when they were attempted to be used, without loss of sensation. Later on, as still greater compression took place, the arm and leg became fixed and rigid in a position of flexion. One of the difficulties met with in trying to connect the symptoms during life with the lesion found after death is the impossibility of determining the exact progress of the tumour, and what symptoms its advance corresponded to. In this case the boy lived some 5 to 7 weeks in a semi-comatose condition, and during this period examination as to sensations were unsatisfactory, but 7 weeks before his death it was quite certain there was no loss of sensation on the paralysed side. It must also be remembered that the tumour pressed rather upon the posterior part of the thalamus than the anterior end, which at the *post-mortem* could still be traced, while the rest had completely disappeared. It is difficult to explain the paresis and final rigidity of the left arm and leg except by supposing that the right side was compressed similarly to the left. But at *post mortem* there was no evidence, though as the right half being apparently healthy was separated from the opposite half before vertical sections were made, it is possible that evidence of pressure was over-looked. Very probably during life pressure was exerted on the sound side by the fluid present in the lateral ventricles.

Medical Times and Gazette.

SATURDAY, DECEMBER 20, 1884.

The adjourned debate upon Charcot's joint disease attracted an audience to the meeting of the Clinical Society on Friday, 12th instant, which once more overtaxed the normal capacity of the auditorium. Some hopes had been expressed that Professor Charcot himself would be able to be present, but these were doomed to disappointment. Two letters, however, which had been received from him by Dr. Duckworth were read to the Society, and on the suggestion of the president a cordial vote of thanks was passed to Professor Charcot for the interest that he had shown in the debate, and for the material contribution to its success which he had made in submitting his specimens for examination. The task of proposing this well deserved compliment fell to the lot of Dr. Moxon, who, while acknowledging the great services which the French physician had rendered to medical science, took occasion, in a speech of considerable length, enlivened by numerous passages of pungent humour and brilliant suggestion, to point out the tendency that exists to appeal to the mystic influence of the nervous system as an explanation of all the most difficult problems of pathology. He showed with much force how the occurrence of bed sores in paralysed persons could be as well explained on anatomical grounds as by any assumption of a "trophic" lesion, and how the production of Charcot's joints could be accounted for by ordinary influences without assuming any nerve disorder whatever. With somewhat unsparing satire he ridiculed the fallacies which used formerly to exalt hæmatoma auris into a system of mania, and the absurdities which were practised some years ago under the pseudo-scientific title of metallo-therapy.

Records of valuable clinical cases bearing upon the subject under discussion were contributed by Mr. Henry Morris and Mr. Page, the latter of whom expressed an opinion which was probably shared by the majority of members present, that the ultimate result of the debate would be to leave individual opinions unshaken. Dr. Pye-Smith wound up the debate for the evening in a useful and argumentative speech, showing in turn the relations between the supposed new disease and the various conditions with which these joint affections might be associated. Several members having intimated their intention of speaking, it was decided that a special meeting of the Society should be held for the purpose. Tuesday, December 23rd, has been finally fixed as the date for the conclusion of the debate.

At the Medical Society on Monday last, Sir Andrew Clark related the history of a peculiar form of pneumonia which he had lately observed in a gentleman 82 years of age. The paper will be found in full in another column. The consolidation occurred in large patches, first in the lower, then in the central, and next in the upper parts of one lung, then spread over to the opposite side and affected the other lung in a precisely similar manner. The patient was extremely ill, having characteristic symptoms as each patch of pneumonia developed. Sir Andrew Clark described it as "relapsing pneumonia;" although no one part was twice affected. It might perhaps have been more properly described as "migrating pneumonia," or "multiple pneumonia." In the discussion which followed, probably for want of similar cases to record, the speakers referred more especially to the probable ætiology of the case, and the general feeling appeared to be that it was of a septic nature, although Sir Andrew stated that no source of contagion could

be discovered even after a careful search ; he was inclined to think it might be due to gout.

Dr. Wilks brought forward at the meeting of the Pathological Society on Tuesday the account of a case in which intestinal obstruction had been caused by gall stones. This raised two points of importance : the first as to how the gall stones reach the intestine, and what part of the intestine they pass into ; the second as to how they cause obstruction. No discussion was necessary to show that in these cases, or in the very great majority of them at any rate, the stone has not passed along the duct, and we are surprised hat so many members found it necessary to unburden themselves on this point. As to the exact way in which the obstruction is caused there is more room for doubt. After the narration of Mr. Hulke's case no one can doubt that the obstruction may take place in the rectum, but we should be inclined to think with Mr. Treves, that in the vast majority its seat is in the small intestine, probably by a spasmodic grasping of the stone by the intestine such as he described. Mr. Rose and Dr. Sainsbury recounted a case of gunshot wound of the brain, in which both the clinical and the *post-mortem* features had been carefully studied. The case was quite in harmony with the modern teachings of cerebral localisation. There were no motor sym toms during life, and the injury nowhere touched the motor tract.

At the Ophthalmological Society's meeting on the 11th, Mr. Priestley Smith exhibited a series of exceedingly simple but nevertheless very efficient models, which he had constructed for the purpose of demonstrating to students the elementary principles of refraction, and the mode of correction of the various errors thereof. They seemed to be admirably adapted for their purpose, and nothing could have exceeded their simplicity. As usual there were several cases of interest in the adjoining room, amongst which we may mention especially a somewhat unusual case of conjugate deviation of the eyes in a young woman, which was probably hysterical, whatever that may mean. Mr. Eales contributed a short paper, in which he suggested that lesion of one kidney might be followed by albuminuric retinitis of one eye only, but the few facts that are at present to hand on this point do not support his view, and indeed there was not universal agreement that in the patient on whom his paper was based the retinitis was of a type that could fairly be classed as albuminuric. Three papers were read on cocaine ; this of course was to be expected. Mr. Nettleship's was a communication of considerable physiological as well as clinical interest.

Dr. Richelot, a hospital surgeon, and the able editor of the *Union Médicale*, seems to be what is called "too old a bird to be caught by chaff." Commenting on the circular issued to the medical staffs of hospitals by Dr. Peyron, the new director of the Assistance Médicale, which, in complimentary phrases expresses the anxious desire of the writer to be guided by the advice and to receive the concurrence of those whom he is addressing. Dr. Richelot observes that he has heard something very like this before. Former directors have often abounded in kind words, some of them having even declared that they felt quite a *penchant* for the medical bodies, but almost always there they have stopped, so embarrassing has their situation proved to be. Now, that the administration has been placed in the hands of a *confrère*, while thanking Dr. Peyron for his liberal sentiments expressed in his circular, Dr. Richelot can only express the wish that circumstances will not reduce them to mere pious opinions. Taking the new director at his word, however, he at once indicates to him a pressing reform upon which he can try his hand forthwith. It seems that the hospitals of Paris are very insufficiently supplied with medical officers, so that the just claims of neither the patients nor the students can be attended to. The officers are greatly overworked, and are unable to perform their duties effectually, while at the same time there are numerous surgeons at the Bureau Central, who have gained their posts by concours, in a state of inactivity, many of these having reached their fortieth year without a service being allotted to them. M. Richelot especially mentions the Lariboisière and the St. Louis and states that he may add the Hôpital des Enfants, and the Tenon Hospital, where one man has the charge of 120 beds.

At a recent meeting of the Society of Physicians of Vienna, Professor Kaposi showed a patient, an army surgeon, who suffered from a very rare disease on the foot, the so-called "Aleppo boil." It was, he said, a disease which was endemic in several parts of the East, especially in Mesopotamia ; it was found amongst the natives as early as the second year, none escaping. The method of development was as follows :—a red patch, resembling that of urticaria, appeared without any assignable cause on some part of the skin, on the face, the nose, the cheek, the forehead, and especially on the extremities ; it next became a nodule of the size of a bean or a nut, developing very slowly without inflammation, and without affecting the functions of the organism. After three or four months had elapsed, a most indolent crateriform ulcer burst out at the top of this nodule, which did not heal for ten months or a year. The disease was on this account called by the Arabians "Habbet-es-Seneh" (year-boil). After the disappearance of the ulcer, there remained a cicatrix of the same form and size. Foreigners living in those regions in which the Aleppo-boil was endemic also became affected by it after a certain time. Professor Kaposi further remarked that many diseases which occurred as endemic affections in the East, and which had been looked upon in former times as specific pathological processes, had ceased to exist, since we had learnt to diagnose them correctly, and to reduce them to their real nature, as was the case with syphilis, lupus, lepra, and caries. As to Aleppo-boil, he was inclined to consider it as an affection *sui generis*. Professor Geber, of Klausenburg, who had made a special journey to the East for scientific purposes, had asserted that many affections had been looked upon as Aleppo-boil which were in reality syphilis, lupus, &c.

But the descriptions which Geber had published favoured the conviction that in many cases neither syphilis, lupus, nor lepra had been present, but a morbid process which he regarded as a skin-disease *sui generis*. The appearance of invariably a single nodule, the course of the disease, and the absence of any recurrence, were a proof of the specificity of the affection. The ætiology of the process was somewhat doubtful; the mode of living, and climatic or telluric conditions played no part in it. The present patient's experience was that Aleppo-boil occurred only in the plains; at a distance of ten miles from great towns it was no longer observed. The patient had served as an army surgeon for two years and a half in a region in which the affection was endemic, and he, his wife, and his children—a boy, aged 6 years, and a child, aged 6 months—were attacked by the disease. As soon as Professor Kaposi saw the patients he was convinced that the affection was Aleppo-boil. Syphilis, lupus, sarcoma, and lepra could be excluded. It might perhaps be suggested that a micro-organism of an animal or vegetable character penetrated into the skin, and led to the growth of a tumour, consisting of connective tissue. Professor Kaposi was of opinion that by the removing of the nodule, the whole process might be shortened. When the nodules have been removed, they will be examined under the microscope.

The special committee appointed by the London School Board to enquire into the over-pressure question have evidently a better idea of the difficulties of the investigation, and less confidence in their own abilities to cope with them, than the members of the Board generally. The sub-committee wished to engage three medical practitioners, nominated by the presidents of the Royal Colleges of Physicians and Surgeons, to enquire into the truth of Dr. Crichton Browne's allegations. Such an investigation would not have been wholly satisfactory. In fact, no enquiry will be efficient which does not allow of the taking of sworn evidence in public under qualified medical guidance. But the suggestion of the committee at least evidences their desire to deal with a scientific problem through more or less efficient instruments. The Board, however, would have none of it, and though even Sir E. H. Currie admitted that Dr. Browne's charges could not be answered without skilled medical aid, they rejected it by 22 votes to 13. Possibly the expense of the suggested enquiry, estimated at 150*l*., may have had some influence on the decision; but a body with such a princely revenue as the London School Board ought not to shrink from spending a few score pounds on a subject admitted by all to be one of the greatest moment.

The result of the Harrison and Page case cannot be regarded as satisfactory to any of the persons concerned in it, and still less so to the medical profession at large. It might, however, have been much worse. It was quite possible that the jury, disregarding the evidence as to Dr. Page's character, and attaching an undue importance to the statements of the servants, might have found the co-respondent guilty of a charge as to which all his friends and intimates strongly attest his innocence. He still, however, is under the stigma attaching to a verdict of "not proven," and under these circumstances he may count on the sympathy of his fellow practitioners throughout the country. The charge of the judge was not a happy one, though we are grateful, of course, for his kind expressions with regard to the medical profession, which, by the way, the *Lancet* in its ill-advised article of the 6th inst. has done its best to nullify. To say that a woman is addicted to habits of intoxication because she takes chlorodyne, is a confusion of terms as commonly accepted, and could not fail to disturb the minds of the jury.

With due ceremony and splendour, the new out-patient rooms at the Middlesex Hospital were opened on Tuesday by the Princess Christian. The new buildings replace some houses in Cleveland Street, and one at the corner in Mortimer Street, so that an entrance for out-patients has been obtained from Cleveland Street, no small advantage in the interests of the hospital authorities. From the somewhat cursory glimpse we were able to obtain of the waiting rooms, and physicians' and surgeons' rooms, we were much impressed with the convenience of the arrangements, and the heating apparatus seemed to be doing its work well—almost too well, in fact, at the time of our visit.

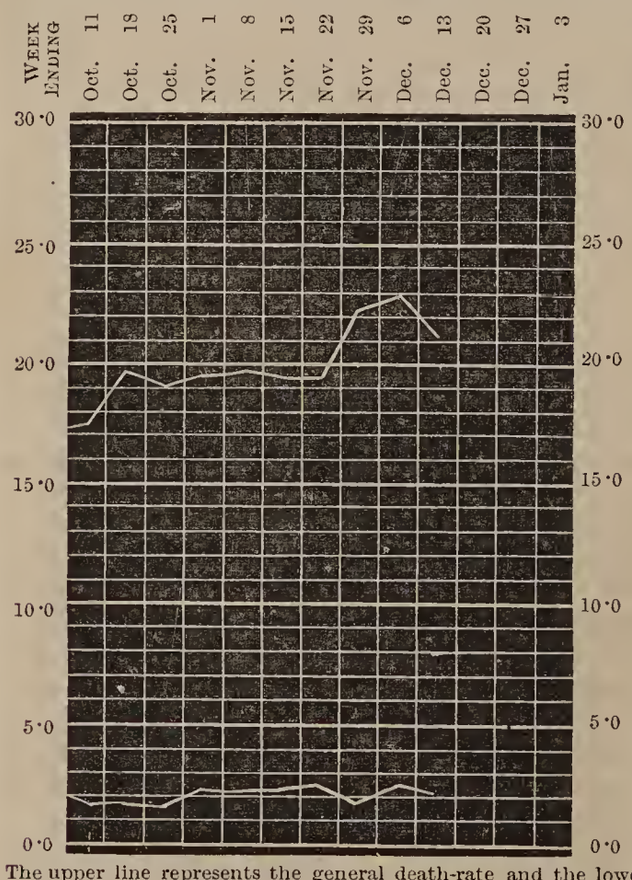
It is stated in a petition to Parliament by certain delegates of Boards of Guardians, that the annual expenditure for wines and spirits at the Homerton Hospitals was 6,425*l*. for 150 patients, or an average cost per patient of 43*l*. The fact is, that during the year ending 30th September, 1884, the account for wines and spirits amounted to 2,012*l*. 19*s*., and the number of patients was 3,331, giving a cost per patient of 12*s*. 1*d*., instead of 43*l*. To this has to be added a daily resident staff of about 180 persons, including medical officers, nurses, assistant nurses, scrubbers, porters, ambulance nurses and ambulance porters, certain of whom, by reason of the infectious nature of the diseases with which they come into contact, are constantly sick.

The meteorological conditions of theMetropolis were on the whole more favourable to the living exhibits at the cattle show last week than has been the case in some previous years. Yet we are told that on one day, at all events, the crowd, the heat, and the oppressive atmosphere produced a marked effect upon the animals, that after the gas had been lighted several of them showed symptoms of asphyxia, and that removal from the building failed in many instances to avert a fatal issue. It is probable that the practical lesson thus preached was generally unheeded, and that its effect evaporated in a few expressions of pity for the sufferings of the "poor beasts." The wonderfully elastic power of adaptation to our environment which we possess is apt to make us oblivious both of the privilege and of its risks. "Heat, overcrowding, impure air, and gas," wreak their evil on ordinary specimens of mankind not less surely than on over-fattened prize-

winners amongst the lower animals; and if the effect of such agencies upon human beings is not so prompt, it is not less real for being insidious. We must regret the occurrence of these examples of involuntary experients in vivisection; but if Fate decrees that a crowded gathering of pleasure-seeking sightseers must have its victims, there is some comfort in the provision of a *corpus vile*, and we hope that the practical demonstration of great physiological truths may not have been utterly in vain.

In the beginning of the present year a scheme of amalgamation was agreed to between the representatives of a proposed Central Hospital for North London and the Governors of the Great Northern Hospital with a view to the erection of a new hospital building in the densely populated districts of North London. In hardly any part of the Metropolitan area is there so urgent a need for hospital accommodation, and constant efforts have been made by the united committee to obtain a suitable site for their purpose. A piece of land, an acre and a half in extent, has now been obtained, having a good frontage to the Holloway Road, and situated a little to the north of the Camden Road, and within reach of Holloway Station. It is proposed to commence building operations directly that possession is obtained, on March 25th, 1885. The present building of the Great Northern Central Hospital in the Caledonian Road has long been found inadequate either to meet the demands for admission or to fulfil the increasing requirements of the out-patient department.

In London last week the deaths numbered 259 below the average, which more than suffices to counteract



The upper line represents the general death-rate and the lower line the zymotic death-rate per 1,000 in London for the past ten weeks.

the lack of increase in the population shown by the number of births being 112 below the average. The week appears to have been a particularly favourable one for infants, as the number of deaths recorded is, with a single exception, the lowest of the present quarter. Though the small-pox epidemic exhibits some signs of declining, the total number of cases last Saturday being 1,011 as compared with 1,027 on the previous Saturday, yet there have been 69 deaths, a larger number than has been reached for many weeks past. There were 23 fatal cases of measles, and 22 of scarlet fever during the week. Whooping cough had 31 victims or 22 less than the average. Diphtheria alone, with its 27 deaths, exceeded the average, and this too without taking any account of the 17 deaths of children under 5 from croup, though it is morally certain that the majority could not have been cases of simple laryngitis. The deaths from diseases of the respiratory organs numbered 457, showing a further decline on previous weeks. There was sunshine last week of a duration in all reaching one hour and twenty minutes, only ten minutes of which were registered from Monday to Friday inclusive.

We are glad to see that Mr. H. R. O. Cross, late Instructor of the Army Medical Staff Corps, who served with the Mounted Infantry through the Zulu and Boer Campaign, and gained considerable *kudos* from his management of the electric light ambulance drill, at Aldershot, last summer, has been appointed Surgeon to the Grenadier Guards.

Dr. Buchanan's annual statement which has just been issued as a supplement to the thirteenth Annual Report of the Local Government Board, touches, as usual, on most important problems, while the appendix gives an account of researches of the deepest interest. This week we can only briefly summarise the Report. The first subject dealt with is vaccination, with regard to which Dr. Buchanan records "a fairly steady advance in obedience to the law." The fatal incidence of small-pox amongst unvaccinated and vaccinated infants he shows to have been in the ratio of 200 to 1. The animal vaccine station supplied during the year 9,311 points and 2,151 tubes of animal lymph in reply to 1,666 applications, the applicants for humanised lymph being nearly five times as numerous. Various important enquiries were made by the medical inspectors during the year as to milk-diphtheria, epidemics in relation to schools, and the distribution of enteric fever. The report next deals with cholera. As to the origin of the outbreak in Egypt in 1883, Dr. Buchanan thinks that the discussions amongst English, Egyptian, and foreign physicians led to no conclusive result—a statement in which we thoroughly concur. He thinks that "the application to Damietta at the first appearance of the epidemic of those inductive methods of investigation which are familiar to the practised sanitary enquirer in England," would probably have resulted in the discovery of some introduction of the disease into that town from outside.

The report next summarises the scientific investigations undertaken under the auspices of the Board. In laying down the lines for an investigation into the disinfectant power of the products of putrefaction—*i.e.*, into the poisons which micro-organisms brew for their own destruction, Dr. Burden Sanderson has opened an entirely new country. He shows that the most interesting of these products from his point of view belong to the chemical group of "aromatic" compounds, the best known example being carbolic acid. Others of the group, however, are probably even more effectual, and it has been Dr. Sanderson's object to ferret out those which are most likely to be of practical value. The substances chosen for investigation were phenylpropionic and phenylacetic acid, and Dr. Klein was commissioned to prove their disinfectant power. The method he employed was based on the principle that the first question to be answered is not whether the disinfectant in question can restrain the growth of a specific microphyte, but whether it can destroy its infective activity. Dr. Klein's researches were very similar to those of Mr. Wynter Blyth, described by him in these columns a few weeks ago. He first experimented with anthrax, and found, like Mr. Blyth, that it is easy enough by means of either of the above disinfectants to kill the microphyte in the form of bacilli, but extremely difficult to kill it when in the form of spores. Experiments made with swine plague gave similar results, while on coming to tuberculous matter, it was found that it resisted the disinfectants in question as strongly as the anthrax spores. There are several other interesting papers by Dr. Klein in which he records the results of his further study of pathogenic organisms, but we have only space to quote his estimate of the part played by tubercle bacilli in the production of local disease in inoculated animals. His researches, in which he was assisted by Dr. Heneage Gibbes have led him to the conclusion that the bacilli are not necessary precursors of each separate local deposit. He is, in fact, rather disposed to regard caseation as being essential to the multiplication of the bacilli, than to think of the localization of bacilli as an antecedent to the first formation of the nodule. This view seems to us to fit in with clinical experience with remarkable neatness.

Very little intelligence is allowed to leak out about the progress of the Nile Expedition, but we are informed, on excellent authority, that the sick, who are more numerous than is generally admitted, are well supplied with comforts and medicine all along the line, and there are not likely to be any of the complaints and recriminations which followed the Tel-el-Kebir campaign. The medical requirements are now being sent up Nile by the post-boat, so as to reach their destination at the earliest possible moment. A flying camel field-hospital has been organised by Surgeon-Major Marky to accompany the camel corps; and a camel bearer company, consisting of 84 men from the Medical Staff Corps, 70 natives, and 200 camels, has been formed under the charge of three medical officers. Meanwhile, considering the admirable water supply enjoyed by the troops, we are sorry and surprised to hear that there is a good deal of sickness. Diarrhœa and dysentery are very prevalent, and there have been several deaths from typhoid at a comparatively early stage of the disease.

BELOW THE CATARACTS.

No one can rejoice more heartily than we do that the proposal to establish a real university in London has at length passed out of the hands of leader writers and "visionary educational reformers" into those of practical and persuasive men of affairs, who alone can carry it into effect. The journalist cannot help being grateful when he sees himself able to exchange the uphill and thankless task of advocacy for the less exhausting duty of criticism, and his only ground for complaint in the present case is that this welcome relief has been deferred so long. The recommendations of the sub-committee appointed to draw up a plan for a teaching university in London have been so fully detailed in the daily press that it is unnecessary for us to go over the ground again. We may say at once that their report strikes us as excessively immature, and the members of the Committee acted most wisely in refusing to adopt it. The sub-committee have drawn up a plan for the government of the new university, with a cunningly devised system of checks and counterchecks, before they have even ascertained what will be the attitude of the present University of London, of the Inns of Court and of the Medical Corporations; in other words, they have sketched out a full plan of their campaign before they have surveyed the cataracts before them, and ascertained whether they are passable. Under these circumstances it may be perhaps futile to criticize the constitution which, falling victims to a common human frailty, they have framed for their non-existent University. We may perhaps point out, however, that this constitution is absurdly complex and oligarchical. The faculties are to send representatives to the Boards of Studies, and the Boards of Studies are to send representatives to the Council; but it is recommended that the Council should also appoint additional members to both the faculties and the Boards of Studies—an entirely gratuitous proviso. Again, it might have been expected that the promoters of a new university in this year of grace 1884, would have thought it advisable to give at least as much power to the general body of graduates as the present London University does. But the sub-committee only propose that the graduates *might* be honorary members of their respective faculties, having the right to attend and vote at a general meeting summoned on requisition when necessary, and give them no voice whatever in the election of the Boards of Studies and of the Council. There is no provision at all for a general meeting or convocation of all the graduates, and in a question of policy affecting the whole University, the voice of its members would not according to the present scheme be able to make itself heard at all. We are quite aware that many professors and teachers maintain that the affairs of a university ought to be left entirely in the hands of the teaching body. Frankly we do not agree with

them. The teachers may know how to teach but they often do not know so well what to teach, as those who are engaged in the active exercise of a profession. In medicine the tendency now-a-days is ever towards widening the gap between the teacher and the practitioner, and we believe it will be generally admitted that a board composed of pure physiologists, pure pathologists, and pure chemists would be the last body to decide wisely as to the exact range and degree of knowledge required for the effective practice of the medical art. The College of Surgeons has been for years an irresponsible examining body composed almost exclusively of teachers, and we venture to say that there is no body whose examinations have been conducted on such glaringly absurd lines. Again, a university is not solely a teaching or examining body; it is a corporation disposing of large funds, and deciding on large issues of national importance—witness the vivisection question at the Oxford, and the female graduate question at the London University. In such matters experience tells us that we are more likely to find sound sense in a large body of cultivated men than in a limited coterie of educational specialists. In short, if the new university is to be a success it must be founded on the most liberal basis possible, and must start at least abreast with modern ideas. It is ridiculous to go to bureaucratic Germany for a model.

When we first noticed the present scheme we asserted that no new university in London would be worth raising a finger for which could not promise (1) a fairly easy medical degree, and (2) centralisation of primary medical education. As to the second point the report of the sub-committee promises little. "The Council is to negotiate with associated institutions for the increase of facilities for common attendance at lectures and laboratory work, and for the concentration of teaching within one or more of such institutions, or within the University itself, in such studies as may appear desirable." *Voila tout!* It may no doubt have been politic in the sub-committee not to appear to threaten the teachers at the smaller medical schools until the scheme is on its feet; but it should be remembered that these schools must be swept away, except as clinical centres, if the interests of medical education in London are to fare any better under the new scheme than they are faring now. The need for an attainable degree, however, is still more pressing than the amalgamation of medical schools; with it, the medical teachers of London could snap their fingers at Edinburgh, Cambridge and Manchester; without it the amalgamation of schools might make the medical teaching of London more efficient, but it would never make it more popular. What prospects, then, do the sub-committee hold out of being able to grant the sort of degree that every medical teacher in London is crying out for? Wisely enough, they hold out none whatever until they have passed their first cataract—the present University of London. The task of the sub-committee would have been comparatively easy if the founders of that admirable institution had acted more wisely, or had forborne to act altogether. At present it is the London University that blocks the way, and it is an open secret that the Senate of that body are not very favourably disposed to the schemes of Lord Reay's committee. It would indeed tax the ingenuity of the cleverest of mortals to devise a plan whereby two bodies with such different ideals as the present and the proposed University can exist side by side even in this monstrous metropolis of ours. There is no doubt, however, that a *modus vivendi* must be found if the new university is to get beyond the stage of plans and reports. For our own part we attach such importance to the existence of sterling degrees like those of the present University, that we should witness with regret any concession which involved their depreciation. We would rather see the University left alone, to continue its present useful function, and a new degree established side by side with it.

The first cataract having been forced or turned, there remain the cataracts of Pall Mall and Lincoln's Inn Fields to be surmounted before the medical wing of the expedition reaches navigable waters. The members of the sub-committee do not appear to have quite made up their minds how to deal with these twin obstacles. In one part of their report they recommend that the University's degrees in medicine and surgery should be "recognized as qualifying *pro tanto* for licence to practise, the power of conferring such licence being reserved to the existing authorities." That appears to mean that the corporations should practically cease to examine, and support themselves by trading on their licensing privileges. We are certain that two such influential bodies as the Royal Colleges will never willingly accept a position of that sort. In another paragraph, however, the sub-committee hints that it may be found possible to blend the examinations of the teaching university with those of the existing corporations, and herein they foreshadow a plan of overcoming the opposition of the colleges which we hope they will in the end boldly adopt. If the new university is to be a success, it must allow each of its faculties perfect liberty to work out its own conditions of union with the university. It would be absurd to organize a new faculty of medicine when we have one ready to hand. It is obvious that in the probable event of the present London University refusing to take part in the new movement, the two Royal Colleges, which comprise amongst their fellows nearly all the medical teachers of London, should be pressed to combine and constitute themselves the faculty of medicine in the teaching university. The fellows of the colleges might elect the larger proportion of the medical "Board of Studies," the remainder being elected as representatives of the various medical schools. The colleges would then be able to give, instead of their present cumbrous titles, degrees which every English student would be anxious to hold, the M.B., B.S., corresponding to the present L.R.C.P., M.R.C.S., and the M.D., and M.S. to the M.R.C.P. and F.R.C.S. respectively. The obstacles are difficult enough to surmount even in this way. Under any other plan they appear to us absolutely insurmountable. Indeed, we cannot help feeling that the advantages of a teaching university, undeniable as they may be, would be dearly purchased at the cost of extinguishing the colleges or relegating them to the obscure positions occupied by the corresponding institutions in Edinburgh.

THE PATHOLOGICAL RELATIONS OF THE THYROID GLAND.

THERE are few subjects which present more points of interest than the group of diseases usually, although somewhat vaguely, held to be associated with the sympathetic system. Exophthalmic goitre, or more familiarly Graves' disease, myxœdema, and simple goitre present at first sight few features in common. With myxœdema and cretinism has been associated the so-called cachexia strumapriva, and the symptoms do tally more or less closely in all the three conditions. As to myxœdema, although a fairly large number of cases have at present been collected, many of them have helped but little to elucidate either the pathogenesis, or even the clinical features of the disease. That the forthcoming report of the Clinical Society will shed some light upon the subject we may expect, since of no observations can it be said more truly than of clinical records, that a few thorough reports are worth tons of ill-digested and imperfectly arranged records. But while the clinical aspect of myxœdema remains much as it rested when Dr. Ord first so incisively sketched the history of the disease, yet experiment and surgery have both been busy during the past few years, and have done much to thresh out the solution of at least some of the questions at issue. The papers published by the Reverdins showed that they had noticed that the thyroid body has something to do with the group symptoms which we nowadays call myxœdema. Dr. Kocher's work, on the other hand, was rather misleading, for although he clearly enough demonstrated that ablation of the thyroid caused myxœdematous symptoms, yet he attributed them to an erroneous cause, namely, chronic asphyxia. In his recently delivered Brown Lectures, two of which we publish in abstract in another column, Mr. Horsley has attempted to show that he has succeeded in producing in monkeys a condition which he believes to be identical with myxœdema. The animals, after ablation of their thyroid, soon sank into the state so familiar in patients who are the victims of myxœdema. There was the swollen expressionless face, the loss of hair, and the obliteration of wrinkles. The œdema was solid and resilient. The gait grew weak and uncertain, listless and impassive, and the monkey gradually passed into a condition of coma, and so died. That this was myxœdema no one can doubt who has seen the specimens. The imbecile stage of these monkeys must recall only too readily the mental condition of the cretin. Again, the so-called cachexia strumapriva which Kocher found following his operations upon diseased thyroids differs in no way from the results following ablation of the normal thyroid in monkeys. It is remarkable that within so brief a period as that over which Mr. Horsley's experiments extended, we should have unfolded before us so exact and speaking a picture of myxœdema.

The upshot of the researches in question clinch one fact, and that is the immense importance to the organism of the thyroid body, or as we think we must now term it, the thyroid gland. What is the exact *rôle* taken by it is less certain. We may say without fear of overstating the case, that there is strong evidence to show that it is largely concerned in the nutrition of the whole body. The extraordinary mucoid degeneration, if we may so phrase a pathological change which combines vast hypertrophy with the formation of inconceivably large quantities of mucin, is clearly a result of thyroid influence, or rather of absence of that influence. We do not deny that many cases of myxœdema exist in which the thyroid gland is to all appearances but little changed; even here, however, there is no proof that the gland has not taken on a perverted function. There is one feature of uncommon interest attached to these experiments, and that is the development of the nervous symptoms. There have been several cases of myxœdema in which "fits" so called have been observed, but the clinical side of the question has not been at all fully elaborated in this direction, observers not having attached enough importance to it. The physical changes in the brain and cord tissues at present cannot be said to show any sufficient correlation with the symptoms, a discrepancy which will we hope ere long be got rid of, and the whole physical basis established for clinical characters so extraordinary.

There are so many points of interest in Mr. Horsley's statements that it would be impossible at present to do more than pass some few of them under review. Thus his experiments, which, although unsupported, were too carefully performed to allow of their being gainsaid, have exposed the fallacy of at least two theories as to the pathogenesis of myxœdema. Dr. Kocher's view that the symptoms followed softening and stenosis of the trachea—in short, were the sequel of a chronic asphyxia—is met by the fact that in the monkeys no such stenosis occurs. And, again, we are fully aware of the fact that Dr. Kocher's views have not been substantiated by the now numerous *post-mortem* examinations which have been made upon myxœdematous patients. It has further been sought to show that sympathetic irritation, or disease of the sympathetic trunk, may affect the individual in such a way as to cause myxœdematous symptoms. However plausible the theory, we fail to see what grounds in fact there are which support it. It is certain, as all must admit who saw Mr. Horsley's specimens, that the nerve tissue in his cases was absolutely normal; and, further, he points out that in Schiff's experiments, in which the sympathetics were subjected to irritation, no symptoms suggestive of the disease in question appeared. Upon the whole we think we may congratulate ourselves upon the fact that a distinct advance has been made through these researches, and what is perhaps quite as important, that the whole subject has been systematised and prepared for even further extension. There is, we need hardly say, room for much further work. The functions of the so-called ductless glands are likely to prove a fruitful field, and the further elucidation of the influence of the sympathetic system, the thyroid and spleen upon nutrition, must be held to be a subject urgently demanding the attention of physiological enquirers.

MEDICAL SOCIETY OF LONDON. — We are asked to announce that no meeting will be held on Monday next, the 22nd instant.

REVIEWS AND NOTICES OF BOOKS.

THE LOG-BOOKS OF THE SOCIETIES.*

We apologise for the triteness of our metaphor. It has been said that for a simile to be a good one, the likeness between the two things compared should be difficult to the first discoverer of it, but obvious to every one when once discovered. Ours, we fear, can lay claim to neither of these distinctions. Except that each has a captain and a crew there is little resemblance between our increasing array of societies and a fleet of argosies, and still less between the bulky and interesting reports of the former, and the bare records of facts which mostly form the log-books of the latter. Our societies are happily nearly always in smooth water, the worst weather they meet with being a mere ripple of discussion or a passing difficulty of finance. For them "the roaring forties" are but inadequately represented by the most strenuous debate on antiseptics; the Sargasso sea finds a poor counterpart in a few stagnant and frothy debates which it would be impolite and perhaps impolitic to particularise. Societies do get into troubled water sometimes and suffer shipwreck, but the history of the past year has been one of successful and remunerative voyages, aided by the trade-wind of professional favour, and brought to a happy close by the united efforts of skilful captains and hard-working crews.

The thirty-fifth publication of the Pathological Society is by far the bulkiest log on our list, and is, we believe, the largest volume ever issued by the Society. One reason for the increase in size would appear to be that the "card-specimens" have not been printed in smaller type than the other communications, as has been the practice heretofore. As a result, the volume no doubt presents a more uniform appearance, but it also makes serious demands upon our already over-crowded shelves. It would be difficult, if not impossible, to over-estimate the value of the work that is being done by this Society year by year, and as time rolls on that value increases rather than diminishes, in proportion to the steady growth in the number of papers attacking the great problems of disease. As we have commented editorially on the most important communications after each meeting, there is little necessity for us to add much now to what we have already said. With the exception, perhaps, of the series of cases of tubercular disease of the tongue, the best communications are to be found in the miscellaneous group towards the close of the volume. We would especially instance Mr. Watson Cheyne's paper on the presence of micro-organisms in two cases of purpura hæmorrhagica, Messrs. Shattock and Parker's monograph on the pathology and ætiology of congenital clubfoot, Mr. Bowlby's paper on four cases of sporadic cretinism, and Dr. Barlow's case of so-called fœtal rickets. The volume is profusely and well illustrated, there being no less than 36 lithographic plates.

The current volume of the Transactions of the Royal Medical and Chirurgical Society is decidedly smaller than many of its predecessors. This is due in part to the rigid, and sometimes inexplicable, exclusion of papers which fail to please the referees, and in part to the growing tendency there is to take interesting cases to the Clinical Society, where the authors are always sure of a good attendance of members to discuss them, and of a place in the Transactions at the close of the session. The exclusion of papers from the Transactions, which have been considered suitable for discussion, is a practice we do not approve of, though we think some control is very desirable. This control, however, should be exercised when the papers are sent in; if, on examination, they are found unworthy of a place in the Transactions, they should be returned to their authors with a formal letter to that effect. It is probable that there would be many unoccupied evenings during the session; this, however, would be better than wasting time in useless and profitless discussion. Among the most noteworthy papers may be mentioned Dr. Ferrier's "review and forecast" of cerebral localisation, being his Marshall Hall prize oration. Mr. Sutton's paper on the "Systematic Examination of Stillborn Children" contained interesting details more than sufficient to warrant his contention "that much good light may be shed concerning hereditary diseases if the bodies of stillborn children be *systematically* examined." A case of a very rare skin disease, xeroderma pigmentosum (Kaposi), is recorded by Dr. Crocker. Dr. Cayley, and Mr. Gould jointly contribute a paper on the operative treatment of gangrenous patches in the lungs, on which an instructive debate took place. The papers are mostly illustrated.

The new volume of the Clinical Society's Transactions may safely challenge comparison with any of its predecessors. In addition to the usual contents, a list has been inserted for the first time this year of the living specimens shown at the Society's meetings, by card. A short account of each is given, and coloured plates are appended to two of the cases. Among the miscellaneous collection of subjects dealt with in the various papers, the purely medical are about equally represented with those dealing only with surgical subjects. Many papers of interest relating to cerebral disease are included, among which we may refer to a well-reported case of disseminated cerebro-spinal sclerosis, by Dr. Bastian, and two instances of severe intraventricular hæmorrhage, by the same author. An important case of old hydrocephalus, leading to insanity and death, is reported by Dr. Whipham. Some noteworthy cases of pneumothorax are recorded by Drs. Cayley and S. West, recovery having been complete in both instances, and in the latter without effusion of fluid. But few examples of cardiac disease are to be found in the volume, the most remarkable being a case of pulmonary regurgitation, by Dr. J. K

*1 "Transactions of the Pathological Society of London," vol. xxxv. London. Smith, Elder & Co., 1884.
2 "Medico-Chirurgical Transactions," vol. lxvii., 1884. London: Longmans, Green & Co., 1884.
3 "Transactions of the Clinical Society of London," vol. xvi. London: Longmans, Green & Co., 1884.
4 "Proceedings of the Medical Society of London," vol. vii., 1884: London, J. E. Adlard, 1884.
5 "Transactions of the Ophthalmological Society of the United Kingdom," vol. iv. London: J. & A. Churchill, 1884.
6 "Transactions of the Academy of Medicine in Ireland," vol. ii. Dublin: Fannin & Co., 1884.
7 "Transactions of the Medico-Chirurgical Society of Edinburgh," vol. iii., New Series. Edinburgh: Oliver & Boyd, 1884.
8 "Bulletins et Mémoires de la Société Médicale des Hopitaux de Paris." Tome 20, Année, 1883. Paris: Asselin & Cie., 1884.

Fowler, and an instance of pericarditis closely following angina pectoris, by Dr. Donald Hood. Of affections of blood vessels there are some very interesting cases. Mr. Pearce Gould and Dr. Hadden respectively contribute papers on spreading obliterative arteritis; Mr. Mansell-Moullin gives an account of a case of thrombosis of the vena cava, and Mr. Arbuthnot Lane describes an instance of extensive thrombosis following fracture of both bones of the forearm. The subject of peritonæal abscess in children is discussed in a paper by Dr. Goodhart. He is inclined in such cases to advocate an early evacuation of the pus. Similar treatment of multiple abscesses in the liver was employed in a case related by Dr. S. West. Among the surgical achievements recorded in the volume are three successful excisions of the rectum, by Mr. Harrison Cripps, undertaken for the relief of cancerous disease. The subject of the operative treatment of fractured patella is dealt with by Mr. G. R. Turner, and a case in illustration of the immediate plaster of Paris treatment is put on record by Mr. C. Heath. A remarkably successful case of abdominal section for the relief of internal strangulation is related by Mr. Clutton, and forms an apt illustration of the advantage of early and decisive action in such cases, lately advocated by Mr. Bryant in his Harveian Lectures. Impaction of a set of false teeth in the œsophagus and of a wedge of bone in the larynx led to the performance of an operation for their removal by Mr. Butlin and Mr. Golding Bird respectively. The records of œsophagotomy are not numerous in the annals of surgery, and Mr. Butlin's case will probably take a prominent position in the history of the operation. Among general diseases may be noted an interesting case of pyrexial syphilis by Dr. Burney Yeo, and several uncommon varieties of skin affections. Myxœdema and Charcot's joint disease are represented by single cases only. From this brief summary it will be seen that the Clinical Society has been occupied with the discussion of many difficult and important subjects during the past year, and, it may be added, that most of the debates have been conducted with a vigour well worthy of the occasion. After a careful study of the balance sheet of the Society, we have arrived at the opinion that the additional expense of having the pages of their Transactions cut might be incurred without much risk that the operation would reduce the Society to a state of insolvency.

The Medical Society of London now publishes its proceedings—"irrespective of their having appeared in print elsewhere"—every year instead of as heretofore in biennial volumes. The fellows of the society will doubtless be pleased with the change. The new volume contains many excellent papers, but the discussions thereon are so meagre, and so badly reported, as to be quite worthless. We would recommend better reporting, or else that the discussions be left out.

The volume issued this year by the Ophthalmological Society will compare most favourably with any of those we have referred to above, both as to matter and appearance. It contains several papers of first-rate excellence, so much so that it is difficult, without being invidious, to pick out any for special mention. Mr. Nettleship certainly has a claim to the first place, by reason of the number and general excellence of his communications; his papers on retro-ocular neuritis, and on amaurosis in infants, will be of permanent value. Dr. Sharkey's paper on homonymous hemianopia, and Dr. Brailey's paper on sympathetic ophthalmitis are both contributions of an order not always to be met with in the transactions of our societies. Mr. Snell's paper on miner's nystagmus will, we should think, practically settle the question as to the cause of this disease, though it is still open to doubt whether the affection is of central or peripheral origin, a point well handled in the interesting discussion which follows the paper. Mr. Snell's other paper, too, on congenital anomalies, deserves a passing word of praise. Mr. Streatfeild and Mr. McHardy each supply a practical suggestion of great value, the former in regard to occluding the lacrimal sac before performing extraction of cataract in cases where there has been any lacrimal catarrh, the latter in advocating a large iridectomy in cases of primary glaucoma. The President contributes a most interesting case of proptosis, and Drs. Edmunds and Lawford give a further and valuable statistical contribution to the relationship between optic neuritis and cerebral tumour. A great many isolated cases of interest are recorded, which we are compelled to pass without notice, in order that we may express our satisfaction at the plates, which are admirably executed.

The second volume of Transactions of the lately formed Academy of Medicine in Ireland contains many important and interesting papers. In the medical section, diseases of the nervous system receive a very large share of attention, Dr. Nixon contributing no less than three, viz.: on a case of brachial monoplegia with anæsthesia, on a case of lateral sclerosis, and a paper headed "Does reflex paralysis occur?" Dr. Finny and Mr. J. B. Story also contribute papers of interest to the neurologist, whilst amongst the other papers we may notice Surgeon-Major Gore's paper on the climatic fevers in Bengal, Dr. Beatty's note on a rare form of skin disease, and Mr. Kendal Franks cases of intestinal obstruction. In the surgical section the place of honour as regards importance must be awarded to the three papers on the radical cure of hernia by Messrs. Stokes, Barton, and Franks. Sir George Porter contributes a paper on foreign bodies in the knee-joint, and Dr. E. H. Bennett one on excision of the knee followed by a false joint; Mr. W. Thomson records a case of pistol shot wound of the cerebellum, Mr. Tobin a case of successful treatment of an ununited fracture of the femur, and Mr. Cahill has a long paper on the carbolic treatment. The obstetrical section, as might be expected, contains papers of great interest; we refer especially to Dr. Macan's report from the Rotunda Hospital, and a paper by Dr. W. C. Neville on the graver fevers of child-bed. In the pathological section a great variety of specimens are described, the most remarkable being that of an ossifying sarcoma of the skull, of which photographs are given. The volume is admirably printed and nicely bound, so that both internally and externally it worthily represents the contributions to the great science of medicine during the past year from the sister isle.

The next report on our list, viz.: the third volume

of the Edinburgh Medico-Chirurgical Society's Transactions, like the Irish volume, shows a slight increase in size as compared with its predecessor last year. It contains, amongst other things, the address of the retiring president, Dr. G. W. Balfour, a large portion of which deals with the too obsolete custom of bleeding, a subject which is also treated of further on in the volume by a Brazilian practitioner, Dr. Gunning. The paper on Catheter Fever by Sir Andrew Clark is given in full, with a verbatim report of the discussion upon it, from which we gather that the subject was better received than when he introduced it to the critical audience at the Medical Society. Dr. Craig, the editor of these Transactions, communicates an interesting note respecting the contents of the little known three volumes which constitute the first series of the publications of this society, and though it is exactly 60 years ago since the first volume appeared, the names of two members in the list then published are still to be found on the roll, so that longevity is not a peculiar feature of our own Medico-Chirurgical Society. We have not space to notice the many excellent communications here given, but one on a case of patent ductus arteriosus with aneurysm of the pulmonary artery, deserves a word of praise as a most learned disquisition on the subject. In one respect this volume is superior to all those that are included in this notice, and that is in the admirable way in which the discussions are reported, the value of the papers being much increased thereby. The book is well got up, the pages are cut, and the leaves gilt at the top, another point of similarity with our own Medico-Chirurgical Society.

The twentieth volume of Transactions of the Medical Society of Paris differs in many respects from our own, and the society is somewhat differently constituted. The Frenchmen consider the debates as of more importance than the papers, and accordingly they print all the discussions, but only a few of the papers in full. One of those thus honoured is a most important monograph by M. Troisier, on subcutaneous rheumatic nodules. Of the discussions, that relating to the cold bath treatment of typhoid fever is perhaps the most interesting. The society has been unusually unfortunate in the number of its distinguished members that have died during the year; amongst them we notice the names of Lasègue, Parrot, G. Homolle, and Archambault.

The Hip and its Diseases; by V. P. Gibney, M.D., "Bermingham's Medical Library." Bermingham and Co.: New York and London, 1884, pp. 412.—The work before us is by an author who for "nearly thirteen years" resided in the hospital for the ruptured and crippled, and during whose term of office no less than 2,048 cases of hip disease were treated. It will be conceded therefore that he is not without a large experience of the subject on which he writes. Over and above this statement, however, the book bears internal evidence of being the work of one who is thoroughly familiar with the diseases which are generically classed under the rather loose term "hip disease." Besides the chapters on the anatomy of the hip-joint, and on sprains and contusions, there are others on neuroses, on rheumatism of the hip, and on chronic rheumatic arthritis, before we get to the subject of hip disease in its more conventional sense; and in order that nothing be left out the author discusses coxo-femoral peri-arthritis in its causal relation to disease of the joint proper. We cannot do justice to the eighteen chapters into which the book is divided in the space at our disposal; we therefore determine to point out such views and statements as we cannot accept, in preference to those with which we agree. In the first place we think the author would have done well to have studied the disease as it occurs in children, apart from its more adult manifestations: this would have led to better chapters on neuroses and on rheumatic arthritis; conditions which are exceedingly rare in childhood. As regards rheumatism of the hip, we are inclined to agree with the general practitioner, in thinking many cases of hip disease are really rheumatism, though both he and consultants also occasionally mistake one for the other. We do not, however, quite agree with the author in thinking these cases to be *muscular* rheumatism in the vicinity of the hip; they are much more probably affections of the joint proper. Many such cases have come under our own observation; points which appear to distinguish them are the rapid onset and the tendency to recur. Chapter VI. deals with coxo-femoral peri-arthritis, which we find means inflammation of the "abundance of cellular tissue about the hip." We confess not to have become familiar with hip disease from this source; on the contrary, when infiltration occurs about the joint, we have usually regarded it as a secondary result. Chapter VII. treats of bursitis of the hip. The author has not made as much out of this variety as its frequency would justify, for bursitis is undoubtedly a frequent cause of hip disease. The number and extent of the bursæ about the hip is very considerable, and when we remember how many of them communicate with the joint itself, how they are, in point of fact, only extensions of the synovial membrane of the joint, it is not surprising that they should increase the risk which this joint runs of becoming diseased. The importance of careful treatment, of thorough Listerism when opening such bursal swellings will be at once apparent. Acute epiphysitis of the hip is dealt with at some length; but no very clear pathological anatomy of the disease is given to support the author's views. To our mind it is very rare, although disease and even separation of the epiphysis consequent on caries in the neck of the bone, that is secondary epiphysitis, is a condition which is found on the operating table as well as in the *post-mortem* room in cases where an operation has not been practised. Chronic articular ostitis, that is to say, hip disease proper, is gone into as thoroughly as its importance demands The book is illustrated, but with illustrations which will do a great deal to prejudice readers against it. We do not remember ever to have seen anything so bad for a very long time. There are numerous errors, both in grammar and spelling, besides peculiarities of diction, which not infrequently obscure the author's meaning. Should a second edition be required—which is not improbable, for the book contains a great deal of useful information—we should recommend a careful overhauling and re-editing, and a new series of wood-cuts.

Regional Surgery, including Surgical Diagnosis. Part, II.—The Upper Extremity and Thorax; by F. A. Southam, M.B., F.R.C.S. London: J. and A. Churchill, 1884, pp. 582.—The present volume forms the second part of a work on regional surgery. About two years ago we briefly drew attention to Part I., and expressed a qualified approval of the author's scheme, and the mode in which its fulfilments had been commenced. We have much pleasure in having again to notice a further instalment of this work, which we think improves as it gradually unfolds. Such a work naturally loses by being published at intervals and in parts, for cross references cannot be so freely inserted as they should be, and thus analogies and contrasts on the diseases of distant parts cannot be so fully brought out as is desirable. We notice too, in describing certain affections, that the parts most frequently affected are not selected, but rather those which happen to come first in order of description, an arrangement which savours of anatomy more than of surgery. Thus epiphysitis, acute as well as syphilitic, is described under "shoulder joints," which for some unaccountable reason suffers but rarely from these affections, while at "elbow joints," at which epiphysitis is

common, the reader is referred back to the shoulder. The account of syphilitic epiphysitis, however, is faulty in more important points than the foregoing. Thus, "if the upper extremity of the humerus is involved, the arm of the child will be observed to hang motionless by the side, as though it had been fractured or paralysed." This is doubtless correct, but it is not a special feature of epiphyseal disease at this point. The same obtains when the disease is situated at the elbow joint, while it is most obvious when situated in the legs. Then again, contrary to our author's experience, the temperature of the part *is* increased, and pain and tenderness *are* present. The affection "is very liable to be mistaken for *infantile paralysis*." Yes, doubtless by one not accustomed to treat children's diseases; but the presence of pain on handling, together with the peculiar cry, and often of increased temperature, are points which will better guide to a differential diagnosis than those given by the author on p. 260, under this heading. It is especially in affections as syphilis, rickets, rheumatism, and other general diseases, that the disadvantages of such a classification of disease, anatomical rather than pathological, as the one before us shows itself defective. We will not be hypercritical, but rather hope that in future editions the few shortcomings which are inherent to a work of this kind will be amended. Some paragraphs might be left out (*e.g.*, clubhand), many may be enlarged and bettered (*e.g.*, empyema). The index can also be improved. The book is well printed in clear readable type, and the size well suited for convenient reference.

ABSTRACTS AND EXTRACTS.

NEUROLOGY.

Thomsen's Disease.—Under the head of "A new neurosis," Dr. W. H. Spencer describes, in the *Bristol Medico-Chirurgical Journal*, for September, a case probably of this rare and very obscure affection. His patient was a labourer, aged 36, who was subject to attacks, or fits as he called them, in which the following phenomena were observed. First the man's appearance became altered, his face became flushed, passing into a state of extreme vascular turgidity, there was slight tremor in the muscles of his arms and legs followed by gradual rapidly succeeding muscular rigidity and spasm, the teeth were ground together, the jaws tightly clenched, the facial muscles set, the arms pressed against the sides, and the legs extended. His voice at this time was muffled and indistinct, there was no loss of consciousness. Muscular relaxation then supervened and the fit was over. Each attack would last about two minutes, and he usually had several attacks in succession, rarely only a single one at a time. The attacks varied greatly in severity. Conium seemed to be beneficial at first but lost its effect after a time. The patient stated that he had been subject to these fits for about fifteen years, and that twelve years previously he had had an attack of mania and been in an asylum for rather more than two years. Five years before he came under observation he had had an accident, an iron bar falling on to his foot, and eighteen months after this he had an attack of lock-jaw lasting for ten days. Since then his fits had been more severe and more frequent. Nothing was to be made out by physical examination, the reflexes were fairly normal and the electrical reactions natural. Dr. Spencer does not indulge in any hypothesis as to the nature of this affection. Previous writers have speculated on this subject, some assigning it to the nervous system, others, such as Ballet and Marie, whose paper we analysed in 1883, believing the muscular system to be at fault. More recently, in the *Archives de Neurologie*, for November, Dr. Romain Vigouroux has recorded the case of a young man, aged 19, in whom the system of Thomsen's disease were well marked, and coincided with a typical pseudo-hypertrophic paralysis, the two diseases appearing not to modify each other in any way. Two points were observed in this case worthy of being especially mentioned—one is the exaggeration of the reflexes, and the other certain peculiarities in the electrical reactions. Every contraction provoked by the current, whether faradic or galvanic, became tetanic and lasted longer than the current. This was observed both when the electrode was placed on the muscle or on the nerve.

Numbness of the Upper Extremities.—Dr. Sinkler says (*New York Medical Journal*, July 26th) that the symptoms are regular and constant in their general characters; the patients are usually women, and at the change of life. The numbness generally began in one or both hands, and gradually extended up the arms; it was usually most marked in the morning before getting up. There was but little loss of feeling to touch, or pain; the numb member was weak, but there was no paralysis, and the weakness was transient; the patients sometimes thought the hands were swollen when the numbness was most marked. The condition was only occasionally associated with rheumatic affections; it seemed sometimes due to over-use of the limb first affected; its duration varied from a few months to several years. The ulnar and median distributions were most frequently affected, and tenderness over the ulnar or median nerve was frequently observed. Many patients were in good general health, but some were anæmic or over-worked. Dr. Weir Mitchell, referring to cases in which numbness came on during sleep, remarks that in such cases the numbness was frequently hemiplegic in character, and alludes to the fact that some persons who have got pretty well of a hemiplegia of organic origin, are liable to wake out of sleep with numbness and lessened power of the side once paralysed. Dr. J. J. Putnam has published a paper, based on the notes of thirty-one cases. His treatment comprised galvanism, phosphorus, strychnine, potassium, bromide, &c.; and he seems to have found phosphorus of more value than any other single means used. Dr. Putnam states that he has lately found lead in the urine of one of these patients, and advises that it should be sought for in all such cases. Dr. Ormerod ascribes the affection to vascular spasm, and observed that bromide of potassium afforded marked relief in several of his cases. Dr. Sinkler inclines to the belief that in these cases there is either hyperæmia of the nerve-trunk, or (as when the numbness is bilateral in its distribution) that there is a congestion of the cervical enlargement of the spinal cord. This view is strengthened by the occurrence of the numbness at night, for the supine posture favours a hypostatic congestion of the cord; and he has seen patients in whom the numbness came on if they lay down and fell asleep even for a short time in the day. Women, at the climacteric, are more prone to hyperæmias and congestion, and they are the more frequent subjects of this form of numbness. Further, improvement usually followed the administration of remedies which are believed to diminish the blood supply of the nervous centres. The prognosis in middle-aged women is not good as regards permanent relief, though the numbness can generally be much benefited or stopped for a time. When the trouble has been induced by over-work of the part, permanent cure is almost certain, if the cause can be removed. In Dr. Sinkler's hands, ergot has proved the most useful drug. Massage and spinal galvanism are useful adjuvants, as are all means which improve the general health. Bromide of potash sometimes does good, and one of his patients was much benefited by sinapisms over the spine. In most cases it was found advantageous to give strychnine for some time after the disappearance of the numbness.

Electrical Neurosis.—Under this head M. Féré records in the *Progrès Médical* a sufficiently unusual case. A woman, aged 29, who had exhibited various nervous symptoms, including well-marked ovarian hyperæsthesia, had for two years presented the remarkable phenomena about to be mentioned. She noticed that her fingers attracted bodies, such as pieces of paper, ribbons, &c., and her hair not only gave sparks when in contact with the comb, but had become very unruly in the matter of lying smooth. When her linen came near her body, a flash of light was produced, and her clothing adhered closely to her body, so much so sometimes as to interfere with the freedom of her movements. These phenomena

were more marked under the influence of strong emotions, and were lessened in damp weather, so that she was able to foretell what the weather was going to be like from the increase or diminution in her state of electric tension. The patient was thin and anæmic, and subject, especially in damp weather, to œdema of the legs. With a view to prevent this loss of electricity, she was recommended to wear silk next to her skin, which was further powdered all over with lycopodium, but without much benefit. Subsequently the daily application of static electricity by means of an electric bath for about ten minutes, was followed by good results. This fact confirmed M. Féré in his idea that this was a case not of exaggerated production of electricity, but rather of an abnormal loss of it, probably owing to the dryness of the skin.

Multiple Neuritis.—At a recent meeting of the American Neurological Association, Dr. S. G. Webber read a paper on this subject, detailing several cases that had come under his own observation. Disturbance of sensation in one or more nerve districts was one of the most constant symptoms, the pain sometimes exactly followed the course of a nerve; it might be boring, shooting or burning; hyperæsthesia of the skin, and tenderness of the muscles usually accompanied it. The special senses had not often been attacked. Motor paralysis was often preceded by stiffness and followed by contraction. Electrical reaction of the nerves and muscles showed changes, but we are not told what those changes were. The superficial and deep reflexes were absent. The pulse and temperature were usually raised in the earlier stages, and in fatal cases throughout. In fatal cases the respiratory muscles became paralysed, the voice was altered, and swallowing rendered difficult. As to diagnosis, it was to be distinguished from acute poliomyelitis by its gradual onset, by the pain, hyperæsthesia, and tenderness over nerve trunks. From progressive muscular atrophy it was to be distinguished by the electrical reactions; from lead paralysis by the sensory disturbances; from spinal meningitis by the relatively insignificant pain in the back.—*Philadelphia Medical Times.*

Acute Painful Paraplegia.—Some years ago an epidemic occurred at Azannon, in Spain, in which paraplegia was the most prominent symptom. A somewhat similar outbreak in a French village named Vizille, is described in the *Revue de Médecine* for July, by M. Dumolard. The disease commenced with pain in the back and a sense of stiffness in the legs; in a short time there also appeared pain in the thighs and legs, not following the course of any nerve or confined to the neighbourhood of any joint, but invading the whole limb. The difficulty of walking increased, and in a few days the patient was obliged to take to his bed. The pain in the loins and legs was sometimes excessive. The reflex excitability of the cord was exaggerated, sometimes to such a degree that the patient could hardly bear to be touched. In some cases there was difficulty in micturition. The patient generally lay in bed with his legs drawn up and thighs flexed on his abdomen. At the end of a fortnight the acute symptoms used to commence to disappear, and in about a month the patient was well. All the cases terminated in recovery. From transverse myelitis, the only disease about which there might be some confusion, the disease is to be distinguished by the incomplete character of the paralysis, and the absence of any nutritive disturbances. Of the seven cases, six occurred in February or March. The author surmises that there was some irritative lesion of the spinal cord, but is quite in the dark as to its exact nature.

Locomotor Ataxy.—Clitoridean crises as a sign of locomotor ataxy, though described nearly twenty years ago by Charcot, have not met with that general recognition that their frequency would justify. Like the other crises they come on spontaneously at intervals of one or a few months. In the *Progrès Medical*, No. 37, M. Pitres has recorded three cases of well marked advanced progressive locomotor ataxy, in all of which this symptom had been prominent in the early stages of the disease, appearing even before the lightning pains. In one of his patients the crises had persisted for four years before any symptoms of tabes showed themselves. He regards them as analogous to the sexual perturbations that occur in the early stages of the disease in men. He concludes with the following propositions. (1) When we find clitoridean crises, we ought to suspect tabes in the absence of any other manifestation of spinal lesion. (2) When clitoridean crises co-exist with any of the ordinary symptoms of ataxy (abolition of the knee jerk, visceral or lightning crises, ocular disturbances, &c.), we ought to diagnose tabes even in the absence of any sign of ineo-ordination of movement. At the annual meeting of the American Neurological Association, Dr. Graeme Hammond read a paper (*Boston Medical Journal*, July 3rd), entitled, "Can Locomotor Ataxia be Cured," which he terminated with the following conclusions:—(1) The absence of the patella tendon reflex is not always caused by sclerosis of the posterior columns. (2) Sclerosis of the posterior columns may exist without being accompanied by the ordinary prominent symptoms of ataxia. (3) Congestion of the posterior half of the spinal cord may give rise to most, if not all, the symptoms of ataxia. (4) It is impossible during life to make a differential diagnosis between posterior spinal sclerosis and posterior spinal congestion. (5) Posterior spinal congestion is curable. (6) There is no evidence that sclerosis, once existing in the spinal cord, has ever been removed. (7) Those cases of so-called locomotor ataxia which have been cured are simply cases of spinal congestion, more profound in the posterior half of the cord.

Cortical Lesions of the Brain.—At page 609 of our last volume, we noticed a communication in the *American Journal of Medical Sciences* on this subject by Dr. Allen Starr. In the July number of that periodical we have a further contribution from his pen. The last paper dealt with the American cases of disease of the non-motor region, this one examines the cases in which the motor region was affected. This area, which he terms the central region, includes the anterior and posterior ascending convolutions, the Island of Reil and the paracentral lobule. The cases of spasm confirm the conclusions arrived at by the study of the cases of paralysis, viz.: that the upper part of the central region corresponds to the leg, the middle part to the arm and the lowest part to the face. One result of this study is the opinion that disturbance of sensation must be regarded as one of the direct local symptoms of lesion in the central region. The same distribution for sensory areas was found to obtain as for motor, viz., that the upper part corresponded to the leg and so on. In three-fourths of the cases of sensory disturbance the lesion was behind the fissure of Rolando, and in more than half of these the parietal lobules were also affected. It would appear therefore that to some extent the motor and sensory areas coincide. Aphasia was referred to lesion in the left Sylvian region, but not restricted to the third frontal convolution. The paper is based on an analysis of 70 cases.

Ankle Clonus.—In a recent number of the *Revue de Médecine* is a short note by M. de Fleury on the relation between epileptoid tremor of the foot and exaggeration of the patellar tendon reflex. From the habitual co-existence of these phenomena, there has arisen an idea that they both own the same cause, viz., sclerosis of the lateral columns of the cord. This idea he believes to be erroneous, and he records a series of cases in which the ankle clonus or "foot phenomenon," as he calls it, was present, the knee jerk being normal. In a second series of cases he shows that ankle clonus may be present when the knee-jerk is weak or even absent altogether. In a third series of cases he shows that when these two phenomena are co-existent, the artificial production of anæmia in the limb, by means of an Esmarch's bandage, will cause the ankle clonus to disappear, the knee-jerk being unaffected. It is probable therefore, he concludes, that the two phenomena are not of the same nature. They may be usually contemporaneous, but there is no common bond of causation between them.

Death of Professor v. Wittich.—Dr. von Wittich, who on account of illness was obliged to resign his professorship of physiology at Königsberg, and was succeeded by Professor Hermann, has recently died in the 64th year of his age.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 12TH, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

ADJOURNED DISCUSSION.—CHARCOT'S JOINT DISEASE.

AT the request of the President, Dr. DUCKWORTH read some abstracts from letters that he had received on the subject from Professor Charcot.

The PRESIDENT observed that Professor Charcot had contributed in a very large degree to the interest and success of the debate. He hoped that a vote of thanks to him would be duly proposed and carried, and at the same time that the Society would not forget its indebtedness to Dr. Duckworth, who had induced Professor Charcot to send his specimens and the interesting communications which had been read.

Dr. MOXON expressed his gratification at the opportunity thus afforded him of proposing a vote of thanks to Professor Charcot. He was able to do so with much admiration of that illustrious physician. He believed that no clinician had ever brought so grand an imagination to the service of his science, and that no scientific imagination had ever had a better power of observation sub-ordinated to it. He thought that it might be accepted as certain that there had been a fact put before the Society, and one which he must regard as a very suggestive fact, looking to the great interest that was manifested by the large attendance of members. What it was that this fact suggested, however, appeared somewhat indefinite. He could quite sympathise with the spirit in which the President had put a question to Sir James Paget at the previous meeting, asking that he would make more clear to the Society what it was that he meant. He fully agreed in the implied suggestion that there was no one fitter to give an answer upon a subject requiring range of thought and accuracy of utterance. The answer which Sir James Paget gave was somewhat disappointing, in that he dragged in herpes zoster. To him herpes zoster was a narrow clinical puzzle, and he heartily wished there were no such thing in the catalogue of diseases. He would be very thankful to any member of the Society who would explain to him in what possible way herpes zoster threw any light on this so-called Charcot's disease. He related a case of herpes zoster illustrating clearly its inflammatory nature and its tendency to run a definite course, ending perhaps in some painful after effects, but always healing and never coming again. What had a disorder so characterised to do with the so-called Charcot's disease? The latter commenced in a condition extremely like common chronic rheumatic inflammation of the joint affected, only that there was no pain in the joint, nor were there any nervous symptoms. Very little that was definite had been put before the Society about this supposed new disease. Mr. Hulke had, however, definitely shown that in the initial stages of this so-called peculiar disease of the joint there is nothing peculiar at all. It was only after an at first simple rheumatism has domiciled itself for approximate ages in the particular joint, that it began to show those peculiarities which make up Charcot's disease. This lateness of character was remarkable, and so also was the absence of pain. What parallel could there be between herpes zoster, which was definite in its origin, exact in its course, and complete in its termination; and this other disorder, which at first showed no definiteness at all, which was absolutely, hopelessly indefinite in its course, and which was peculiar amongst rheumatisms in having no nervous phenomena at all? In one line only did they touch each other, that was the line of indefiniteness, the line in which we knew nothing about them. Seven or eight years ago Professor Westphal had shown that in what was called general paralysis of the insane the conditions of locomotor ataxia to a large extent were present. Being much interested by that statement, he (Dr. Moxon) had made a careful examination of the general paralytics in St. Luke's, and had come to the conclusion that about one-third of all those unhappy sufferers had the physical conditions objectively characteristic of locomotor ataxia. He quoted Dr. Savage to the effect that in his experience about one-third of all general paralytics in Bethlem showed locomotor ataxia, but that he had never met with a single example of Charcot's disease in that hospital. If in truth the conditions of ataxia were present in a paralysing disorder, and if this peculiar joint disease supposed to belong to ataxia did not appear in the ataxia that went with paralysis, then, he thought, we must look for some traceable effect of paralysis to explain the absence of the joint affection, and possibly some light would thus be cast back upon the causation of the whole mystery. If an ataxic person were paralysed, and therefore could not go about upon his ataxic joint, he was thereby saved from the effects of continual irritation. Possibly this might be the reason why he did not make an originally chronic simple rheumatism into an aggravated, unrepairing, irritative, severe, therefore strange and peculiar disease of the joint. He exhibited a specimen from Guy's Museum consisting of the shoulder joint of an ex-cabman who was thrown from his cab and hurt his shoulder a year before his death, but in order to support his wife and family had continued driving his cab. The constant jarring involved in a year's cab-driving with an injured shoulder joint would not be so very far different from a year's unsteady stumbling about on an ataxic knee joint. In the specimen one-half the head of the humerus was entirely gone, and yet there was no production of new bone about it. Those, he considered, were the most striking characters of the so-called Charcot's disease as defined and summarised by Sir James Paget at the last meeting. A half-Charcot's joint could thus be made by the irritation connected with the unguarded and continued use of a joint suffering rheumatically or from any injury. When demonstrating anatomy at Guy's Hospital, it had always been his pride and pleasure to make the subject interesting to his class by trying to show some reason why that which was evident should be expected to exist. And amongst the most interesting general facts of anatomy first observed, and to the larger extent by Mr. Hilton, but also carried a little further by himself, was this in particular. Mr. Hilton said that wherever a nerve supplied a muscle it supplied the skin over that muscle. From his own observation, he would say that wherever a nerve supplied a muscle it supplied the skin of the part moved on the side towards which motion was effected, and it likewise supplied the joint which that muscle moved, and generally on the side towards which motion took place. There must be some meaning in such an arrangement. The meaning must be that there was some underlying necessity that the part moved should be sensitive to the effect of motion; and they might understand the necessity, for, given that anything harmful is occurring through a movement, the moving agency ought to be immediately and duly checked. If that was a requisite of joint life, what ill results might not ensue if the sensibility of a joint were taken away and the muscles rendered spasmodic in their action. These ill-results must be first measured and stated before it was asserted that when a joint deprived of its sensibility and subjected to spasm showed serious signs of chronic inflammation, that there must be something mystical and marvellous in the nervous system to explain it. He pointed out that Mr. Hulke had shown that this so-called Charcot's disease began as a common rheumatism, and ended in extensive disorganisation, only after long experience of spasmodic irregularity of action in the presence of a wholly broken down condition of that protective system to which he referred. He thought that it was no new thing in the history of the medical profession for a mysterious origin to be claimed for a local manifestation. The supposed association of mania with hæmatoma auris was an example of this. In the absence of proven or direct causes there was a tendency in the profession to appeal to the nervous system, as if it were a kind of special providence, something like the sort of influence which before the days of Sir Charles Lyell was thought to enter into geological periods, the special providence of geology. There used to be some degree of moderation in that invocation, until what was called the trophic nervous system was invented. This trophic

or nourishing system seemed indeed to be a special branch of providence which had charge of the supplies of the several textures, such as the bones, and gave daily bread to the joints, having its seat in the *medulla oblongata*, and being, in fact, a sort of Secretary of State for the Joint Department in that over-occupied kind of Downing Street of the Physiological Economy. Why, however, should one knee-joint out of the whole system of articulations be singled out for destruction when all were under this same central control? Those who believed that the knee-joint in Charcot's disease was affected by the nerves should show that the nerves themselves were affected, as Danielssen and Boeck had done in the case of anæsthetic leprosy. He considered that there was a very large opening in this direction for further contributions, and that they ought to be extremely exacting and not easily diverted from the severity with which they would pursue and force that question home. Not only must a diseased condition be demonstrated, but a diseased condition in itself proven and obvious. The French professor had brought forward, as evidence of some very mysterious influence of the trophic nerves, the very strikingly significant occurrence of unilateral bed sore on persons paralysed on one side only. He (Dr. Moxon) was not ready at all to admit that they must here suppose any vague providence of trophic nerves to explain such an occurrence; they must rather look straight into the particulars of such a case and see if they could not understand it. A hemiplegic patient always lay toward the buttock that was paralysed. In certain arteries, such as the perforating arteries of the thigh, the vessel passed through a tunnel of tendinous fibre to which many of the muscular fibres of the part were attached in such a way that the contraction of the muscle held the tunnel open, and so kept free the course of the artery from pressure by the mass of contracting muscle. In the inanimate clay-like mass to which a paralysed buttock was reduced, this pressure was no longer counteracted, and the vessel was closed. If, then, the buttock was fed by arteries coming through the gluteus maximus, and with the whole weight of the body, through the roll of the patient, resting on the gluteal mass of the one buttock unprotected by the tone of the muscle, it was not surprising if the muscle and the textures over it should perish exactly in proportion to the pressure, a proportion which the destruction always closely observed. In proposing a vote of thanks to Professor Charcot, he did so with the highest admiration of the great services which he had rendered to medicine. But it must not be forgotten that this was not the first occasion on which the profession had had a somewhat mystic light thrown by Professor Charcot on an obscure subject. The function of genius was to bring the marvellous to play round the ordinary—it was the very charm of genius so to do. The vagaries of hysterical females in response to the application of metals, &c., attracted some attention a few years ago and there could be no doubt that on that occasion the marvellous was brought to bear upon the ordinary in a very suggestive manner. He would conclude by thanking Professor Charcot profoundly, and asking the society to pass him a vote of thanks.

Mr. Morrant Baker seconded the vote of thanks to Professor Charcot, which was carried by acclamation.

Mr. Henry Morris thought that the contribution of the complete histories of two cases might lend some usefulness to this discussion, because he considered that the way to arrive at any definite conclusions upon this or any similar subject would be rather by inductions drawn largely from individual cases, than from any general reasoning. The first case was that of a man who, in 1877, was sent to the Middlesex Hospital with a knee for which it was supposed he would require amputation. The knee was described in the report at the time as chronic rheumatic arthritis of a most aggravated and special character, but it had all the well-marked conditions of those knees which had been exhibited during the last few meetings. This man had come also with a malignant tumour of the face, which he had had five times removed. After the removal of this malignant growth of the face, which turned out to be a rodent ulcer, he was fitted up with Thomas's knee splint, and returned to his home in Staffordshire, where he continued working with this splint a little over six years as a miner. The history of the case with regard to the knee was briefly that of chronic rheumatic arthritis. But throughout its whole course there had been no ataxic symptoms, and at one time, under the rest furnished by the splint, there had been distinct improvement. This fact supported the views of Mr. Jonathan Hutchinson and those who thought with him, that if these joints were submitted to a condition of rest, the changes would cease and improvement would take place. The second case was that of a man who had a leg in a condition of elephantiasis. He was admitted into hospital with an intestinal obstruction, for which he was operated upon. He died after the operation, and an opportunity was afforded of obtaining his limb. This man had complained throughout the greater portion of his life of severe sudden pain in his abdomen, lasting only for a short time, and then passing off. These pains were fully explained by the condition which was found in his abdomen after death—an enormous volvulus, in a huge sac-like omentum, which must have existed for a very long time. The leg had been getting bad for ten years, the ankle becoming quite slough-like, and movable in any direction. It had lost all shape; it was rotated outwards, the bearing point was almost brought upon the inner border of the foot. There was a perforated ulcer on the great toe of one foot, and a similar condition on the corresponding spot on the other. These conditions had been gradually progressing for 21 years. On closer examination of the limb it was found that the bones of the foot had worked down in a saucer-like cavity with considerable thickening of the bone around, the external malleolus was more like the condyle of the femur, the tibia and fibula were firmly united at the lower ends, and the shape of the bones was altered by an irregular bony growth along their shafts. Very marked changes were found in the posterior tibial nerves, but they were precisely those which had been described by Mr. Savory and Mr. Butlin and others in a recent volume of the Medico-Chirurgical Society's "Transactions," as occurring in perforating ulcer of the foot. There was enormous thickening of the epineurium, and scarcely any change in the perineurium. The nerve fibres were scattered very sparsely; only the large nerve fibres were visible, the smaller, which were considered to be the sensory and trophic fibres, were almost entirely absent. Throughout the case there was a complete absence of any ataxic symptom. Whether these remarkable changes in bones, joints and skin were brought about originally by some change in nerve or not, there was here, at any rate, a condition of marked change in the nerve, and an undoubted association between a perforating ulcer and a condition of a neighbouring joint, exactly similar to those described by Charcot, and further there was associated with these conditions the peculiar elephantoid condition of the whole of the tissues from the knee to the foot.

Mr. Page referred to a case brought before the Society early in the previous year, of a man who for some years had been the subject of gastric crises, attacks of vomiting to an extreme degree, and who also had pain of great severity. The man came under observation for an affection of the tarsal bones of one foot, which apparently was associated with, if not caused by, a lesion of the nature of tabes dorsalis. The tarsal bones of both feet gradually underwent a very considerable change, consisting in extensive destruction of the tarsal bones. Under the influence of rest, however, ankylosis eventually took place. So far, the history of the case was that of rheumatoid arthritis attacking the bones of the feet, possibly promoted by certain nerve changes. The man remained at work in what was to him perfect health, till about the end of August in the present year, when he again came into the hospital with a recurrence of the attack in one foot. Most extensive changes had lately taken place in one ankle and one series of tarsal bones, but the other foot had been wholly unaffected. This fact seemed to point to some other cause than that of such a general condition as rheumatoid arthritis. He thought that the debate had hitherto been more or less pathological. Speaker after speaker had referred to the pathological changes which were met with, but very little indeed had been said about the clinical features of the affection, whereas it was upon these that Charcot himself

desired to establish the existence of a wholly distinctive disease. Various speakers had referred to the gradual wearing away of the ends of the bones which was met with in this condition. But in the clinical history of these cases of Charcot's disease, the wearing away was not gradual: it was rapid, and took place in a very short space of time, and it seemed that there must be some other cause than the rheumatoid change or the friction of the bones one against another to account for the condition. Charcot himself had pointed out numbers of cases which had been brought forward of recent years, in which a rapid wearing away had taken place in association with exacerbation and other symptoms of the disease, increased pain, gastric crises, and other things of the same kind, and in his own cases attacks of hæmaturia which probably had a nervous origin. There was no reason to believe that in a case such as his the friction of the bone could have given rise to the condition, because in the later stage only one joint had been affected, both having been subjected to precisely the same influences. It might be allowed that certain irritative lesions of nerve trunks did give rise to certain different effects, in a nerve which had been divided, and in which the distal end of the divided nerve was irritated by inflammation; or by being bound down in cicatricial tissue, the changes were somewhat different. When the distal end of the nerve had been released from the cicatrix by operation, the changes which were due thereto ceased, but the passive condition of nerve activity remains for some time till the nerve function has been restored by the union of the nerve. Those might or might not be trophic changes, but they were essentially due to some effect upon the nerve trunk at the part where the division had taken place. If such effects might take place in that way he did not see why it was not possible that the same sort of change might not be due to lesions in more central parts of the nervous system. But recent observation had shown that nerve trunks themselves underwent very extensive and serious changes in this disease, and also in the case of acute bedsores. He believed that in some of the cases described by Professor Charcot, where paralysis was induced accidently, not only was bedsore met with on the opposite side to where there was anæsthesia, but actual changes were met with in the joints on the same side as the lesion where there was motor paralysis. So that possibly if the condition of paresis on one side were due to changes in the nerve, the same thing might be on the other side also, so that possibly these changes were really due to some alteration of the nerve trunks themselves, though determined by the condition of the nervous system itself. He thought that the result of the debate would be to leave the minds of members in a state of individual belief, in reference to this disease. For himself he confessed his belief, without desiring to pin himself to one particular faith, very strongly indeed that they had to do with a distinctive disease of joints induced by some change in the nervous system, and that Professor Charcot himself was not far wrong when he originally, in his description, decided that this was a distinctive disease having special clinical characteristics of its own.

Dr. Moxon asked Mr. Page, with reference to the case that he had brought forward, whether the person with this tarsal disease, as he described it, had or had not locomotive ataxy definitely; and, secondly, whether he would tell the Society in what way locomotor ataxy was a less general disease of both feet than was rheumatoid arthritis?

Mr. Page replied that his patient had certainly no ataxia in the ordinary sense of the word. With respect to the disease being limited to one side, he could hardly conceive a rheumatoid arthritis being absolutely quiescent in one limb previously affected to so extreme a degree, and yet voluntarily active in the other.

Dr. Pye-Smith remarked that the first point which was brought before the Society, in the admirable speech by Sir James Paget, was whether this Charcot's disease was a new disease. With regard to that he would venture to express his opinion that they had no evidence of any actual new disease, certainly not of this. Cholera, diphtheria, and that curious affection known as cerebro-spinal, insular sclerosis, which again they owed to the acumen of Professor Charcot, had all been only recently recognised, but no one believe that these diseases did not exist previously. They were new to them but not new in nature. The second point was the relation of so-called Charcot's disease to osteo-arthritis; and, on the whole, it seemed to him that the weight of evidence was somewhat in favour of connecting the two, and that at any rate there was no adequate evidence for separating them. If somewhat extreme or well-marked cases of the two affections were compared there was, no doubt, sometimes a great excess of fresh bone, a great hypertrophy in osteo-arthritis, and there was a great diminution, a great waste, in Charcot's joints. In most cases of Charcot's disease, where there were several joints to look at, an attempt more or less at the production of new bone could be discerned in some of them. If the disease were admitted as belonging to the somewhat large group of osteo-arthritis, it was evident also that even in this well-recognised group of affections certain varieties could be distinguished. There was, if they were put side by side, apparently but little similarity between the early stages of osteo-arthritis as it affected the girl, where it attacked very symmetrically the small joints in the fingers, with considerable pain, and a little febrile re-action perhaps, and a very little distortion, and a disease affecting one hip-joint of an old man with perhaps hardly another joint in the body affected, very slow, very local, very, so to speak, traumatic, very little, so to speak, constitutional. There was all the difference between the early affection of the young woman and the late and obstinate affection of the old man. With such a contrast they might be inclined to say "Here are two diseases." The mere fact of a well-marked typical case of Charcot's disease differing from an ordinary case of osteo-arthritis should not lead them entirely to separate them. He had seen a gouty joint with all the clinical features of gout, in which the pathological changes had left the joint very much in the condition of an osteo-arthritis; but no one would say that gout and osteo-arthritis were the same disease. So with acute rheumatism, true rheumatism, rheumatic fever, he for one believed most thoroughly in that being an absolutely distinct, definite disease, entirely separate from everything known as chronic rheumatism, osteo-arthritis, or rheumatic gout, or any of those rather vague terms. At the same time there was no doubt that occasionally deformity and other changes might result from acute rheumatism, which were far more frequently seen in osteo-arthritis. He related two cases in illustration of this fact. Had this osteo-arthritis or Charcot's disease, taking the two together, any definite relation to rheumatism, to gout, to trophic disease, nervous diseases, or to tabes? With regard to trophic nerves, he could not agree with Dr. Moxon in regarding them altogether with scorn. The early experiments upon the trophic nerves of the cornea, confirmed as they had been by a series of modern physiologists, placed their existence beyond all possibility of reasonable doubt; and when once that had been done, the many clinical and physiological facts which before they had endeavoured to explain, and rightly so, upon other hypotheses, without calling in these obscure trophic nerves, had become not only clear, but added much weight to what they knew before—such cases as Mr. Hilton's of the ulcer on the hand, which waxed and waned on pressure on the ulnar nerve from exostosis—such cases as those remarkable ones of bed sores of rapid, severe, violent description, very different from the bedsores of pressure—compelled them to admit the existence of trophic nerves; but he could not admit that they had any evidence that they have much to do with Charcot's disease. There was no reason to suppose that a trophic nerve had any connection with the posterior columns of the cord, and there was reason to believe that the trophic nerves passed out through the anterior roots, which, so far as they knew, were quite unaffected in tabes. Then, with respect to gout, was there the slightest connection with gout of any sort? The whole pathology of gout and osteo-arthritis was so different that he rather wondered that there should be any resemblance seen between them. There was an entire absence of urate of soda from the true cases. The extreme rarity of gout in certain parts of the world, and the extremely common diffusion of this disease was surely enough to show that there was no connection between them. The same disease was common among animals, and he exhibited a specimen of

the fetlock of a horse, showing a good example of osteo-arthritis. Many other specimens of this had been shown by Professor Flower and others. But no one had traced gout in any one of these instances. He pointed out at some length that equally little connection could be traced between this joint disease and syphilis. Having seen a great many cases of tabes dorsalis or locomotor ataxy, he had never seen a case of joint affection supervening in the course of this disease. As regards the connection between tabes and Charcot's disease, he thought that tabes itself was not such an absolutely fixed and definite entity that they could afford to hang a still more doubtful disease on it. Without absolutely denying its existence, he thought that it had suffered very much from want of accurate definition; under the wide category of tabes a number of cases had been included which were wanting in many of its essential features, and if they were to arrive at better knowledge they wanted not philosophical views as to its origin and connection with other forms of pathology, but more carefully observed cases of joint affection in persons with locomotor ataxy, and better prepared sections of spinal cords. It was not by generalisations or theories, or by referring to occult causes, or by invoking dyscrasiæ, diatheses, blood diseases, and neuroses, and all those somewhat vague and undetermined causes, that they would arrive at any further knowledge of them. He thought that of further contributions which the Society would receive, and which would help in the solution of this very interesting question, those would be of the least value which smelt most of the lamp, and those would be the most useful which smelt most of the dead house.

The discussion was then adjourned to Tuesday, the 23rd instant.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, DEC. 11TH, 1884.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Living Specimens.

Mr. R. M. GUNN showed a little girl with unilateral choroiditis in the right eye. There was a history that two years previously she had been taken ill with convulsions and unconsciousness, probably due to an attack of meningitis. From that date she had been blind with the right eye and deaf with the right ear. Posterior synechiæ were found, and at the outer part of the disc there was some choroidal atrophy. Some connective tissue growth could be seen stretching into the vitreous and partly obscuring the disc. There were two small detachments of the retina. There was a most distinct history of syphilis in the mother, and some of the earlier children had exhibited symptoms of hereditary syphilis, but this child had none. He nevertheless attributed the affection to inherited syphilus.

Messrs. CRITCHETT and JULER exhibited a man who for five months had been subject to a recurring vesicle on one cornea. There was much photophobia and lacrimation when the vesicle was present; each one only lasted a few days. In other respects the eye appeared sound.

The PRESIDENT observed that a vesicle was often seen on an eye that was nearly lost, but he did not remember to have seen one on a perfectly sound eye.

Dr. W. A. BRAILEY showed a case of hyphæma supervening on some deep-seated intra-ocular change. There was irido-cyclitis, and hæmorrhage into the vitreous. There was no history of gout.

The PRESIDENT said that this was just the sort of case in which he would have expected that gout had been present.

Mr. NETTLESHIP thought that this was a case which formerly would have been described as idiopathic phthisis bulbi.

Dr. BRAILEY in reply pointed out that it differed from cases of phthisis bulbi in every respect except one, and that was the variation in temperature.

Mr. ADAMS FROST showed a young woman with conjugate deviation of the eyes to the right, probably hysterical.

Retinitis Albuminurica in the left eye only.

Mr. HENRY EALES (Birmingham), communicated this case.—F. B., aged 25 years, single, came to the Birmingham Eye Hospital on August 25th last, complaining of loss of sight in his left eye of three weeks standing, when the house-surgeon made a note that his right eye was normal while his left eye presented all the typical appearances of retinitis albuminurica, that the urine contained albumen in a small quantity, and that he had been a heavy beer drinker for seven years. On enquiry it was ascertained that on Saturday, August 2nd, being very drunk, he had a fall on some steps in which he twisted his left side. This pained him for a fortnight after so severely that he was unable to stand upright. His urine remained normal in appearance as far as he could tell, but on the following morning he noticed his sight dim, there being "a cloud over the upper part of his sight." He has never had scarlet fever, syphilis, or, in fact, any illness till the present. Having been treated as an in-patient, by frequent purgatives (mostly of elaterium), hot baths, and with liq. ferri. perclor and digitalis as the principal medicines, his albuminuria and retinitis rapidly subsided—indeed, for a time, it was thought the albuminuria had quite disappeared, but careful investigation still showed albumen in the urine about two hours after breakfast in slight traces. No casts had been found, possibly on account of not being looked for in the more acute stage of the affection. The retinitis was typical, the retina being covered by large milky opaque effusions, with a few hæmorrhages, the yellow spot and disc being especially affected. The right eye had never shown a sign of retinitis, even of the slightest kind. The appearances in the left eye at the present time were —disc, white and atrophied, and margin blurred; retinal arteries reduced to threads, several glistening dots in retina all round the macula as seen after typical retinitis albuminurica. Urine showed trace of albumen after breakfast, but at no other time.

Mr. MCHARDY exhibited a drawing of the right eye of a woman who had had albuminuria which exhibited changes analogous to those seen in albuminuria, though not characteristic. The other eye was normal. The case had been brought forward at the International Congress in London. He also referred to a case of uniocular changes which had been recorded, in which *post-mortem* it had been discovered that there was only one kidney.

Dr. STEPHEN MACKENZIE narrated a case which he thought of interest as bearing upon the difficulties in diagnosis. A young girl with albuminuria had changes in the retina of a marked character, and there was neuritis like that seen in cases of cerebral tumour. After death, tubercular meningitis was found, and there was only one kidney which appeared to be healthy, so that the cause of the albuminuria remained uncertain. It was, he thought, often impossible to decide with the ophthalmoscope alone between Bright's disease and cerebral tumour. Uniocular neuritis was occasionally seen in cerebral disease.

Mr. NETTLESHIP, referring to the nature of the choroidal patches, observed that they were abrupt, very white, and rather large, unlike those due to severe retinitis. The patches in the choroid were not most marked in that part of the fundus where the retina was most liable to changes. He thought that they were of much older date, possibly the result of the blow ten years before. The disc suggested to his mind a rather slow arterial thrombosis.

Mr. EALES, in reply, said that at first he had been inclined to regard the choroidal changes as the result of the blow, but the severity of the disease had been greater at the lower part, and over the atrophic patches in the choroid, which had been for some time concealed. He had no doubt that vascular obstruction had played an important part in the production of the changes.

On the Use of Cocaine in Ophthalmic Practice.

Mr. SIMEON SNELL (Sheffield) communicated a short paper on this subject. He had tried it in most of the eye operations. In tenotomy some pain was felt when the

tendon was hooked up and cut. In iridectomy only the pulling out and cutting of the iris was felt. In lacrimal operations he had not found it of any use. The mydriatic effects were somewhat uncertain.

Mr. NETTLESHIP had operated on about seventy eyes under the influence of cocaine since October 10th, on which day six eyes were so dealt with. The operations were the following:—

	Eyes.
Extraction of cataract, with iridectomy	12
,, ,, after preliminary iridectomy	4
,, soft cataract through small incision without iridectomy	4
Iridectomies for various purposes	16
Conical cornea (apex excised)	1
Discission	8
Iridotomy	2
Scraping corneal ulcers	2
Tenotomy	17

It was used in several other operations (chiefly tenotomies), but without the fact being recorded, and it had been used almost daily for several weeks in cases of foreign body on the cornea. The preparations used were a two per cent. watery solution, a 2·5 per cent. solution in vaseline and in castor oil, occasionally a four per cent. watery solution, and of late usually gelatine discs, each dise containing $\frac{1}{200}$th of a grain of cocaine hydro-chlorate. These had always caused complete anæsthesia of the cornea and conjunctiva of healthy (*i.e.*, non-inflamed) eyes; but the iris had never been completely anæsthetic in any of the operations involving iridectomy, even after frequently repeated applications; indeed, it was doubtful whether the sensibility of the iris was lowered at all in any of the cases. In one preliminary iridectomy the patient became so unruly when the iris was grasped that the operation had to be completed under chloroform, and with the other patients some difficulty was experienced at the iridectomy stage, although the operations were satisfactorily finished without general anæsthesia. In tenotomy there was sometimes slight pain, when the parts were put on the stretch by the hook and scissors. But with the exception of the above mentioned iridectomy the operations had almost invariably been completed without a hitch, with next to no discomfort to the patient, and with no bad after effects. Had cocaine not been in use, the writer would have given ether or chloroform to about one-half of the patients referred to. Cocaine was used prior to application of actual cautery to granular lids on several occasions with partial success. In a case of cauliflower warts about the inner canthus, and in a case of lupus on the skin of the lower lid, with little or no success. Cocaine greatly relieved the photophobia in several cases of corneal ulcer. When the ciliary region was much congested, it had remained sensitive to deep pressure, though the conjunctiva had seemed anæsthetic to light pressure, and the cornea completely so. The mydriatic effect was often less marked in inflamed than in healthy eyes, and repeated applications to congested eyes had not produced any decided blanching. A single application to the healthy eye caused complete anæsthesia in two to three minutes, which began to diminish in about four minutes, and had entirely passed off in about twenty minutes. Retraction of the upper lid began in four or five minutes, and lasted about half-an-hour; during the same time well-marked blanching of the surface of the globe occurred. Mydriasis began in three to ten minutes, was at its maximum ten to fifteen minutes later, and lasted in all at least twelve hours. The reflex and associated actions of the pupil were present throughout. Accommodation, though scarcely affected by one application, was almost completely paralysed, but for a very short time, by repeated applications. A single drop of eserine solution acted as fully and quickly as if no cocaine had been used. Probably the retraction of upper lid, whitening of eyeball, and mydriasis were caused by spasm of muscular fibres innervated by the sympathetic. The very fleeting cycloplegia caused by the repeated use of the drug might be due to ischæmia of the ciliary muscle from spasm of its nutrient arteries.

Mr. ARTHUR BENSON (Dublin), made a further communication on the same subject. He had found that the specimen of cocaine with which his previous experiments had been conducted was contaminated, probably with eserine. Hence the subsequent contraction of the pupil, &c. This result did not occur when the pure drug was used, but the pupil remained dilated for several hours. The most minute trace of eserine counteracted the dilatation. He found in experimenting on himself, that the anæsthesia produced reached its maximum in two or three minutes, and was extremely local; he could, by applying a small quantity, produce anæsthesia of one half of his cornea and conjunctiva, whilst the other half retained perfect sensation. The degree of anæsthesia depended, within limits, upon the amount of the drug employed: repeated applications of a 2 per cent. solution produced almost total anæsthesia of cornea and conjunctiva, so that the removal of foreign bodies and other operations could be performed painlessly. The sensibility of the iris seemed to be only slightly, if at all, diminished. He had applied it on the tongue and lips without marked results, a slight dulness of sensation alone being produced. In cases of photophobia, he had used it with marked benefit (keratitis and conjunctivitis), and considered it of great value in facilitating the examination of such cases, as well as from a therapeutic point of view. In normal eyes it usually produced an increase of tension amounting to + 1 within from a half to one hour, the tension falling before the dilatation ceased. He had not tested its effect upon the tension of diseased eyes. He had removed an aural polypus, having applied cocaine to the ear, with apparently good results. He was certain that the drug when used pure and in abundance would prove one of the most valuable ever discovered. Its action being so local, and the duration of the anæsthesia so limited, it should be used abundantly, and a very short time before the operation.

Ophthalmic Models.

Mr. PRIESTLEY SMITH demonstrated his models illustrating the following points:—(1.) Hypermetropia and myopia, a diagrammatic section in two parts, the one sliding upon the other. (2.) The condition of the retinal picture in emmetropia, hypermetropia, and myopia, with and without accommodation, and with and without glasses; a spherical wooden model, capable of elongation and with a movable lens. (3.) The same conditions by a different arrangement to demonstrate the fundus image-test. (4.) Astigmatism; a "cornea" of india-rubber cut from the side of a large ball. (5.) The mechanism of accommodation; a thin elastic steel band curved to the proper shape to represent the lens in section. The suspensory ligament was represented by spiral steel springs; the ciliary muscle by ribbons, which could be pulled upon when it was desired to illustrate its action. (6.) The causation of diplopia, and its correction by prisms; two cardboard cylinders mounted on a vertical axis, with a convex lens in front, and an aperture covered with thin paper behind. At the yellow spot region, the paper was made more transparent by a drop of paraffin; at the fixation point was a lighted candle. The relation between deviation of the cornea and the apparent deviation of the image in paralysis of the sixth nerve, and in other deviations of the eye, could be demonstrated, as well as the effect of prisms. Mr. Priestley Smith also exhibited a simple artificial eye, and an apparatus for demonstrating operations on pigs' eyes, which consisted of two short cylindrical pillars with cupped extremities, over which tubular caps were arranged to slide and to keep up a proper amount of tension in the eyes, which otherwise would be too flabby.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 16TH, 1884.

J. W. HULKE, F.R.S., President, in the Chair.

Report of the Morbid Growths Committee.

DR. PAYNE read the report on Drs. Lanchester and Hobson's case of caseous pneumonia. The reporters agreed with the description as to the naked eye appearances given by the authors. They found tubercles in the left pleura. The alveoli of the left lung were filled with amorphous granular material. Cells when present were chiefly seen in the walls of

the alveoli. The septa were not thickened. Miliary tubercles were not found in the lung, and there were no giant cells. The change was very uniform. The right lung and other organs showed miliary tubercles. The pneumonic process was originally acute; there had been a fibrinous lobar process, followed by caseation. Very little mention was made of the subject in the books, but Corneil and Ranvier had alluded to it. Their report concluded by accounting for the bulging during life by actual increase in the size of the lung.

Intestinal Obstruction Caused by Gall Stones.

Dr. WILKS described this case for Mr. Wilks, of Salisbury. The patient was a lady who had obstruction of the bowels for seventeen days, when one stone came away in an enema, and two days later a second likewise came away. The large weighed 250 grains, and had one facet; the smaller weighed 150 grains. Dr. Fagge had recorded several similar cases. In most there was no history of pain or jaundice. The stones probably passed directly into the intestine. Nearly all the causes of complete obstruction were to be found outside the intestine; obstruction did not occur from any impediment from within. The case was quite exceptional in this respect.

Mr. JOHN WOOD had operated in a case of painful tumour in the region of the gall bladder. After careful dissection he reached an abscess with two gall stones in it. This was adherent to the hepatic flexure of the colon.

The PRESIDENT asked where the obstruction was supposed to have been. He referred to a case of obstruction he had seen in which the stone was close to the anus, and was easily removed by the finger.

Mr. LUCAS had felt the same difficulty as the President, but thought that possibly a local peritonitis where the ulceration had taken place might have caused it.

Mr. TREVES thought that stones must reach the intestine by ulceration. He had collected forty-eight cases, and there was only one of these in which the stone had presumably passed along the duct. He thought that the obstruction was in the lower part of the ileum in this case. Active treatment was to be avoided, especially that by aperients.

Mr. BARKER had already recorded a case in the Society's "Transactions" of a large stone which had passed by means of an abscess into the second portion of the duodenum. The patient had died of obstruction.

Dr. WILKS thought the stone had probably been in the rectum, but enemata had been given without difficulty.

Dr. GEORGE HARLEY said that if the stone had passed along the duct there must have been jaundice and pipeclay schools. It might ulcerate into the duodenum, jejunum, or colon. If it became impacted in the rectum it had probably ulcerated into the colon.

Dr. GOODHART mentioned a case where a patient died from peritonitis after the stone had ulcerated its way into the duodenum. It was blocked in the ileum. The obstruction was due to the bowel hugging the stone so that there was a spasm causing the blocking.

Dr. CARRINGTON mentioned the case of a lady who died after five days' symptoms. There was a stone firmly impacted in the ileum. The patient died of peritonitis.

Gunshot of Injury of the Brain.

Mr. ROSE gave the clinical details of this case. The patient, a man aged 45, had shot himself through the roof of the mouth. Brain matter had come through the nose. There was tumefaction of the scalp, but no aperture of exit could be made out. The patient was conscious and rational. Later he became noisy. Next day he was weaker, and had involuntary discharge of urine and fæces. Next day (fourth day) a fracture of the skull could be made out, and an operation was performed, some pieces of bone and the bullet being removed. He died fourteen hours later.

Dr. SAINSBURY said that the bullet had passed through the ethmoid bone and right orbital plate. It came out near the coronal suture, one inch in front of the sagittal suture. There was laceration of the orbital convolutions on both sides, but most on the right side. The left hemisphere was intact; on the right side the marginal convolution was completely destroyed in front. The first frontal convolution was slightly damaged. There had been no sensory trouble at first. The case agreed with the results of Horsley and Schäfer as to the functions of the marginal convolutions. Dr. Sainsbury referred to the universal intercommunication of nerve centres, and the possibility of a lower centre cut off from its higher centre of its own side receiving stimuli from the opposite cerebral hemisphere through the opening up of side paths.

Mr. LUCAS asked whether any cerebro-spinal fluid had been noticed to escape from the ear or nose.

Dr. RICHARDS mentioned the case of a boy who had had a piece of lead driven by an explosion into the parietal region of his skull, there being no symptoms for two days, and then sudden death occurred.

Mr. VICTOR HORSLEY noticed that the lesion in this case was in front of the sulcus which contained the centres for the muscles of the trunk and leg in the marginal convolutions. In regard to recovery of motor power in hemiplegia by absorption of blood clot, he thought that the arm was singly represented in the cerebral hemispheres, and the legs were doubly represented, and this would explain why recovery was so rarely obtained in the arm as compared with the leg.

Mr. PAGE referred to a case of extensive gunshot wounds in the front part of the brain. There were no symptoms for four days, and then aphasia set in.

The PRESIDENT referred to a case published by Mr. Lawson, of suicidal wound in the frontal region in which the man was able to give an account of himself, and recovered after removal of the bullet.

Mr. ROSE said that there had been no escape of cerebro-spinal fluid.

Dr. SAINSBURY said that the inter-communication in the case of the arm might be so fine that recovery was impossible.

Sympathetic System in Diabetes.

Dr. HALE WHITE had examined this microscopically in four cases. In all he found chronic inflammatory changes. In one case he noted in the thoracic portion great increase of small cells, with great engorgement of the vessel and new growth of fibrous tissue in their wall; the splanchnics and semilunar ganglia showed similar changes. In a second the changes were very similar. In a third the changes were similar, but less pronounced. In the fourth the vessels were much dilated, the surrounding structures being much degenerated and containing many leucocytes. These changes he looked upon as pathological. It could not be expected that lesion of the vasomotor nerves should always produce glycosuria, as the area of vascular dilatation might be too extensive or the lesion might be irritative and not paralytic. Diabetes, he said, might be due (1) to an affection of the vasomotor nerves or some part of their course between the vasomotor centre and the liver as in his four cases. (2) To an affection of the vasomotor centre itself, as where glycosuria was due to cerebral lesion. (3) To an affection of the vasomotor centre by reflex irritation, as in the cases of neuralgia, sciatica, &c., in the glycosuria recorded by Frerichs.

Mr. LOCKWOOD asked whether both semi-lunar ganglia had been examined, or if only one, which, as there was a considerable anatomical difference between them. In cranial injuries of the frontal region he had often found glycosuria.

Dr. HADDEN had recently examined the sympathetic system in a case of diabetes, but found no lesion. He was not satisfied that all Dr. White's specimens were abnormal.

Dr. PYE SMITH thought that no one could consider the specimens shown as normal.

Dr. WHITE, in reply, said that he had examined both ganglia in one case and both were diseased. The existence of diabetes in cranial injury was by no means uncommon, and easily explained.

Card Specimens.

Dr. HALE WHITE—(1) Abnormality of lung. (2) Patent ductus arteriosus.

Mr. D'ARCY POWER (for Dr. Mackinder)—A pouched or duplicate bladder.

Mr. RIVINGTON—Osteitis of upper part of tibia with disease of knee-joint.

Mr. G. R. TURNER—Congenital tumour of perinæum.

CORRESPONDENCE.

THE DURHAM DEGREE.

By a Correspondent.

"Go to Brussels" is a piece of advice too often given to the qualified or unqualified man of our London schools who, having neglected to obtain or prepare himself for obtaining a medical degree, finds that it will be greatly to his advantage to possess such a distinction emanating from a respectable University. Probably, however, even the most ardent advocates of the Belgian Degree will admit that it falls somewhat short of the object required, and if this be so, what is the better course for our aspirant? There can be but one answer in the majority of cases, so far as this country is concerned, and that is, "Go to Durham!" and in order to demonstrate this, I propose to give a short account of the Durham Degree and the facilities for obtaining it, together with some particulars relating to the Medical School which, by the by, is at Newcastle-on-Tyne, some 17 miles from Durham, the University town.

Nothing points more conclusively to the value of the Degree than its rapidly increasing popularity, and that too with a very good class of men. I am referring here, in the first place, only to the "one year residence degree"—that obtainable by practitioners over 40 years of age and of 15 years' standing being of an entirely different order. The number of men now on the books at Durham is about 220, the entries for this year showing an increase of 50 per cent. upon those for 1880-81; and this increase is most apparent in the ranks of the "Foreigners"—as those coming from London and elsewhere are sometimes called—who constitute about 25 per cent. of the whole. Of these foreigners a large proportion (sometimes I believe a hundred per cent.) are qualified men, and many have held resident hospital and other temporary appointments. The remaining number are mostly men in their third or fourth year, who have come to finish their medical and surgical subjects at the Newcastle School before going up for their "College," &c. Some have passed the London matriculation examination, and some the preliminary scientific, but these latter are few. The London men, and they form the great majority of the "foreigners," are very evenly drawn from the different Metropolitan schools, but it is said that St. Thomas' and King's College sometimes send a slight relative majority (*on their respective entries*), and this may be accounted for by the fact that members of the staff at both of these schools are on the First M.B. Examination Board, viz., Drs. Curnow and Harley.

The examinations proper consist of the Extra Arts examination (a species of matriculation), fee 2*l.*; the First M.B., fee 5*l.*; Final M.B., fee 6*l.*, with the M.S., also 6*l.* For the first (Extra Arts) are required—Greek (1 Book of Xenophon) and Euclid (books iii. and iv.), with two only of the following, viz., Latin, French, German, Mechanics, and History. This examination is required in addition to the ordinary Arts Preliminary, and is by no means easy; but it should be observed that the corresponding examination of other Universities, such as Edinburgh and London, are accepted at Durham. This extra examination, or its equivalent, must be passed before the Final, but not necessarily before the First M.B. It is held in March and September of each year.

The First M.B. is generally held to be the *pons asinorum* at Durham. It takes place twice yearly, in September and April, and lasts five days. Its subjects are anatomy, physiology, botany, and chemistry; theoretical, and practical, and *vivâ voce* in all. A man must have a very fair general knowledge of the subjects for this examination to ensure success; about 50 per cent. are referred.

The final examination, held in June and December, comprises medicine, surgery, midwifery, diseases of women and children, pathology, medical jurisprudence, materia medica, therapeutics, and public health. About 25 per cent. are referred from this examination, and the somewhat large per-centage of passes is said to be due to the longer time and greater care taken by candidates—frequently qualified men engaged in practice—in preparing for it. The M.S. examination after the M.B. includes operations upon the cadaver, and may, considering the status of the University, be said to be somewhat unduly severe; on one or two recent occasions all the candidates have been referred.

Of the relative values of the Durham and other British Degrees I purposely say nothing; but a glance at the papers of the first M.B., with its well known minimum standard of 50 per cent. of full marks in anatomy and physiology, will be sufficient to suggest that the short term of compulsory residence is the chief attraction in point of facilities. I should mention that the First M.B. may be passed at any time before the Final, either before or after the one year's (resident) attendance at the Newcastle school.

The degree for practitioners of over 40 years of age and of 15 years' standing consists practically of the same subjects as those for the ordinary final examination with the addition of a simple and easy arts' preliminary if such has not already been passed. The examination is essentially practical in character, and about 60 per cent. of the candidates are referred.

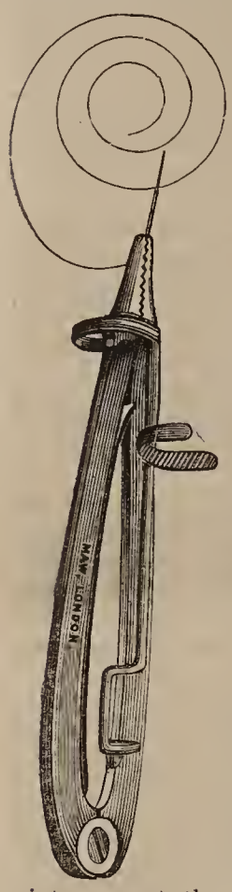
As to the opportunities for study at Newcastle, any industrious man will find plenty of facilities for work, and of material to work with, in almost all subjects. I may mention anatomy, chemistry, clinical medicine, theoretic surgery, and, latterly, pathology, as those most thoroughly and effectively taught; and clinical and operative surgery, with perhaps one redeeming exception, as unmistakably weak points in the practical teaching. This latter fact is indeed notorious, but no one has as yet had the courage to "bell the cat." Another matter of urgency which is having very tardy attention paid to it, is the appointment of a professor of physiology, but it is said that this will not now be long delayed. Clerkships and dresserships are for the most part readily obtained, and there is never any lack of good cases in the Infirmary. For each sessional course a fee of 5 guineas is paid; and four such courses only, *i.e.*, two for each session of the one year of residence, are required for qualified men. This is exclusive of hospital attendance, for a full annual course of which 12 guineas are paid. Thus the total amount necessarily paid in fees during the one year is £33 12*s.* I may remark here that students, unless holding office as clerks or dressers, are not allowed in the wards except at the period of the surgeon's or physician's visit, but I believe that this is a rule of the lay committee for which the staff is not responsible. The medical school is about 400 yards from the hospital, and they are situated on either side of the "central," or main railway station; but a new block of buildings is now about to be constructed for the medical school, and I am glad to hear also that a wing of 100 beds is to be added to the general hospital.

Lastly, as to the residence of "foreign" students: by far the best plan is to live out of Newcastle, either in the country or at the sea-side, and if at the sea-side by preference in Tynemouth, Cullercoates, or Whitby. In proof of this, a large number of the sojourners do so live—at the sea—and go to and fro daily by train, a distance of ten miles, taking about half an hour. The fare is one shilling third class, return. The lodgings at the sea-side are clean, plentiful, and for the most part cheap, and season tickets on the railway are very moderate in price.

INVENTIONS AND IMPROVEMENTS.

NEW NEEDLE HOLDER.

The special feature of this instrument consists in the novel device by which the opening, shutting, and fixing movements are accomplished. The blades are surrounded by a triangular collar, with rounded angles, fixed just below their points, and under the control of the thumb by means of a lever. When the holder is grasped by the hand this collar can be easily rotated. In its long axis the blades are released by a recoil spring, but by a slight movement they are securely fixed, and the points are brought into close contact with each other. The holder is represented in the engraving carrying a surgical needle and thread. It is adapted for the introduction of every kind of needle, and it is not liable to get out of order. The pressure at the points can be accurately regulated by the hand of the surgeon, and thus the risk of breaking needles is greatly diminished. The long lever attached to the thumb-plate is intended to facilitate the insertion of deep stitches in plastic operations. The rotatory action of the instrument is the chief element of novelty, and this marks the difference between it and the holders now in general use. By slight movement of the thumb on the lever complete control is obtained over the needle. Sir Spencer Wells' short scissor-shaped holder is suitable only for the introduction of large needles, and the ordinary spring instrument gives no variation of pressure at the points, except the slender accommodation obtained by covering them with soft metal. The new holder is made by Messrs. Maw, Son and Thompson.



J. Ward Cousins.

MOVABLE CROSS BAR FOR PREVENTING DISPLACEMENT IN THE APPLICATION OF LISTON'S LONG SPLINT.

In the treatment of fractured femur, hip-joint disease and other complaints, necessitating the use of Liston's long splint, the surgeon often has considerable difficulty in keeping the splint in position. No matter how carefully it may have been applied, if the patient is young or a restless adult some degree of displacement is sure to take place, and complete rest of the affected part, one of the principal objects for which it is applied, is as a consequence not attained. Sand bags are often very useful in controlling the movements of the limb, but in my experience are far from efficient. Hamilton's splint certainly answers the purpose for which it is applied admirably, but it necessitates the fixing of both limbs, and is, in addition, very cumbersome. In preventing displacement I have found the following simple contrivance very effectual. It is made of wood, and consists of an upright, varying in length according to the size of the patient, fixed at right angles into a base the same length as the upright, and of sufficient width to form a good support and prevent tilting. The upright has two vertical slits, one near each extremity, into which the projecting end of the long splint is to be inserted. When two splints are necessary both slits are in use, and a very efficient Hamilton's splint is the result. About 1½ inches to the inner side of each slit the upright is pierced by a round hole through which the cord attached to the foot piece may pass when extension by weight and pulley is used. Besides preventing displacement and rendering the use of sand bags unnecessary, pressure upon the heel is avoided, the long splint with the attached limb being raised when it is inserted into the slit. If the upright is made high enough, the toes are protected from the bed clothes and a cradle is not required. It is very portable, and can easily be removed from one bed to another, or packed away when not in use.

Wm. J. Spence.

NEW MEDICAL BATTERY-CELL.

The well-known electrician, M. Chardin, of Paris, has lately imagined a simple but effectual arrangement, by which the sulphate of mercury cell may be used as a convenient element in medical batteries. The new form of cell consists of a large test tube, at the bottom of which is placed a small quantity of the salt. Water is poured in so as to fill about half the tube, and a couple of ordinary corks floated on the top. The electrodes consist of small rods of carbon and zinc, the size of an ordinary pencil. They are fixed in pairs to the under surface of the element board. By a lifting arrangement the tubes can be raised; the pair of electrodes force the corks downwards, and so displace the exciting liquid which rises and puts the battery into action. The advantages of this battery are the high electromotive force of the elements; their small size and light weight; the security against accidental spilling; and last, not least, the facility with which anybody can re-charge the cells when exhausted. We speak from personal experience, and can fully recommend M. Chardin's heat element to the attention of medical men. For electrolytic, as well as for ordinary therapeutic, purposes it will be found to answer all the requirements of practice. M. Bernard (47, Jewin Street, E.C.) has always a number of the batteries in commission, and will show them to those interested in the subject. He also has in stock other kinds of medico-electrical apparatus made by M. Chardin, among which we may mention an ingenious battery for galvanocaustic purposes.

SOUTHALL'S SANITARY TOWEL.

The sanitary towel introduced for the use of ladies by Messrs. Southall, Bros. and Barclay, of Birmingham, some four years ago, has commended itself so thoroughly to the common sense of practitioners, nurses, and laywomen, if we may use the expression, that the issue of a cheaper sanitary towel, which, being retailed at the price of one shilling a dozen, is brought within the reach of even the poorer classes of the community, will be regarded by many as a great boon. The newly issued appliance, which is distinguished as "Sanitary Towel No. 2," is well adapted for the purposes it is intended to serve; it is soft, elastic and firmly made, and its absorbent capacity is considerable. The cotton wool together with the other constituents of the towels, professes to be antiseptic; and thus, though it is advisable to burn them as soon as possible after use, they may be kept with less danger of becoming offensive from the products of decomposition than the ordinary diaper.

BARNES' IMPERMEABLE CARRAGEEN POULTICE.

Appliances such as Barnes' Carrageen Poultice (J. B. Barnes, Trevor Terrace, Knightsbridge), have one great advantage, viz., that they render it easy for the medical practitioner to follow the time honoured rule, "If you want a thing done well do it yourself." Once great importance was attached by doctors to the preparation and application of poultices; at the present time all this is left to the friends of the patient or his nurse, with the frequent result that on his next visit the doctor finds his poultice put on in the wrong place, or a large one applied when he intended a small one, and *vice versâ*. With the neat roll of prepared poultice supplied by Mr. Barnes, such misadventures would be avoidable, the practitioner being able to cut off the exact size required, and to apply it himself *secundum artem*. Apart from this advantage, the carrageen poultice is im-

permeable to moisture and retains heat well; it is light and pliable, adapting itself accurately to the contours of a part. The ordinary carrageen poultice is composed of Irish moss, glycerine, and thymol, spread on a light impermeable material; but a poultice is also obtainable which contains in addition 10 per cent. of carbolic acid.

CRAPE OF HEALTH UNDERCLOTHING.

This cunningly woven material, manufactured by Strähl-Siebenmann, in Switzerland (agent in London, Howell, 60, Watling Street, E.C.), is well suited to its purpose. It makes a warm, light and unirritating vesture, and might be substituted with advantage for some of the thick and skin-tormenting under-garments which are so widely used in England by persons who are nervously afraid of cold. It is difficult, however, to convince such valetudinarians that the thicket vest is not necessarily the warmest.

MEDICAL NEWS.

THE PRESS ON THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

The *Times* trusts that the scheme will receive all the attention it deserves, and before long become a reality. London is far worse organised in the matter of the higher education than any other great European capital, and, as regards university teaching, the total that is accomplished is ludicrously small if we judge it by the standard not only of Paris and Berlin, but of Edinburgh and Glasgow. It is eminently desirable that this state of things should be set on a better footing. King's and University College would be all the more animated if they felt themselves part of a great teaching university, while the medical schools might surely be brought into greater harmony, excellent as many of them are in their way.

The *Standard* admits that the ideal of the reformers is certainly an imposing one. A great academic centre, including the educational departments of the Inns of Court, the Colleges of Physicians and Surgeons, the hospital schools, and in time, perhaps, the Royal Academy, the British Museum, and the Society of Civil Engineers, is a fascinating vision. A great city like London, indeed, ought to have something of the sort. But should the idea ever be realized, how the elder institution, with its limited functions and capacities, can continue to exist at all it is not easy to continue to conjecture.

The *Daily News* says that to give London a teaching university, and to find a legitimate place for the teachers of London in the operations of the University of London, are not only desirable, but most important objects. The deficiency which Lord Brougham and his friends felt sixty years ago has even yet been only partly met. The capital ought to have the largest and fullest possible provision for university teaching, and the only question is how it can best be supplied.

The *Morning Post* remarks that many will echo Dr. Matthew Duncan's doubts as to the possibility of forming an alliance between existing institutions and the new university. However, all educational movements have difficulties to encounter at the outset, and those visible in the path of the present enterprise ought not to prove insurmountable. As Lord Justice Fry pointed out, the enormous increase of late in the number of purely examining bodies in this country, as distinguished from bodies connected with teaching, does unquestionably "tend towards that hideous simulacrum of learning, 'cram.'" A new departure, therefore, seems called for; and that suggested certainly promises well.

The *Pall Mall Gazette*, criticizing the meeting, says that where so many professional men were gathered together, the goddess of jealousy was of course in the midst of them. But the mere fact that these jealousies did not prevent substantial agreement in the main point involved is the best possible augury for the future University. The so-called University, which is already in possession, is no doubt the chief rock ahead. To ignore it altogether and to expect it to entirely abrogate its present functions would be alike impossible. Between these two extremes, however, a middle way ought not to be impossible.

The *St. James' Gazette* thinks that it would be a good thing to have a real London University; but it does not follow that it would be a good thing to have two of them. To have one University of London which examines only and another which examines and teaches as well, while both grant degrees, would add considerably to the complexities of our educational system. Surely a means might be devised by which the present Burlington House examinations and degrees might be worked in with a regular system of faculties and professional teaching.

The *Globe* points out that one grave objection to the scheme is the danger of bringing the entire body of professional education under one fixed and inelastic system. The whole idea as at present before the world distinctly confuses the ideal of professional and academic training. So vague and costly a scheme has first of all to prove its necessity, and this unquestionably still remains to be done.

THE MAHOMED MEMORIAL FUND.

In addition to the subscriptions which we announced last week, the following have been received:—

W. Adams, Esq., F.R.C.S., £5 5*s.*; Anonymous, per C. A. Aikin, Esq., £1 1*s.*; E. Edmund Aikin, Esq., £3 3*s.*; E. Garrett Anderson, M.D., M.P., £10 10*s.*; Anonymous, £2 2*s.*; Dr. Andrew, £10 10*s.*; Mrs. Wemyss Anderson, £1 1*s.*; R. Stow Armstrong, Esq., £1 1*s.*; F. Argles, Esq., and Mrs. Argles, £15 15*s.*; Tom Bird, Esq., £1 1*s.*; W. E. Buch, M.D., £10 10*s.*; Dr. Robert Barnes, £1 1*s.*; Dr. Fancourt Barnes, £1 1*s.*; Dr. Burnet, £2 2*s.*; Harrison Cripps, Esq., £2 2*s.*; G. Anderson Critchett, Esq., £5 5*s.*; Dr. Cavafy, £5 5*s.*; Dr. Cleveland, £1 1*s.*; Dr. H. Donkin, £3; J. N. C. Davies-Colley, Esq., £50; Dr. Langdon Down, £5 5*s.*; Dr. Duffey, £2 2*s.*; Dr. Duffin, £2 2*s.*; W. Dendy, Esq., F.R.C.S., £2 2*s.*; Dr. Finlay, £2 2*l.*; J. Cooper Forster, Esq., £10 10*s.*; Dr. Wilson Fox, £10 10*s.*; Sir William Gull, Bart., £50; W. Grieve, Esq. (per Harrison Cripps, Esq.), £10 10*s.*; W. A. Garrard, Esq., £1 1*s.*; E. C. Greenwood, Esq., £1 1*s.*; Dr. Herringham, £10; Dr. Wharton Hood, £5 5*s.*; Richard Hickman, Esq., £1 1*s.*; J. R. Jessop, Esq., F.R.C.S., £2 2*s.*; Dr. Hughlings Jackson, £26 5*s.*; Mrs. Jacobson (Chester), £1 1*s.*; Victor A. Jacques, Esq., £2 2*s.*; Dr. Robert Liveing, £5 5*s.*; T. G. Lithgow, Esq., F.R.C.S., £2 2*s.*; Dr. Stephen Mackenzie, £10 10*s.*; Cardinal Manning, £5; H. Manley, Esq., M.B., £1 1*s.*; A. Kinsey Morgan, Esq., £1 1*s.*; Dr. Moxon, £50; Edmund Owen, Esq., £2 2*s.*; Malcolm Morris, Esq. (in instalments), £10 10*s.*; Sir James Paget, Bart., £10 10*s.*; Dr. Pye-Smith, £25; The President of the Royal College of Physicians, £100; Dr. Playne, £1 1*s.*; Dr. Pavy, £26 5*s.*; Dr. J. A. Parry Price, £2 2*s.*; Sir Edwin Saunders, £10 10*s.*; Dr. Stevenson, £26 5*s.*; Dr. Sturges, £5 5*s.*; Henry Sewell, Esq., £10 10*s.*; Thomas Smith, Esq., £10 10*s.*; Dr. Felix Semon, £2 2*s.*; Anonymous (per Dr. Felix Semon), £2 2*s.*; Dr. Shepherd, £5 5*s.*; Henry Willson, Esq., £1 1*s.*; J. Cooper Wilkinson, Esq., £2 2*s.*; Dr. Hale White, £3 3*s.*

Subscriptions will be received by the Treasurer, A. E. Durham, Esq., of 82, Brook Street, Grosvenor Square, W.; or by the Secretaries, Dr. Goodhart, 25, Weymouth Street, Portland Place, W.; and W. H. A. Jacobson, Esq., 41, Finsbury Square, E.C. The Fund will remain open in case any contributors may wish to spread their subscription over a term of years.

University of London.—The following pass and honours' lists have been published:—

M.D. Examination—John Metcalfe Beverley, John Thomas Rogerson, B.S., Malcolm Webb, Manchester Royal Infirmary; Hugh Walter Boddy, Manchester Royal School of Medicine; John Howard Champ (Obtained the number of marks qualifying for the Medal), Wheelton Hind, B.S., Guy's Hospital; John Clinenson Day, London Hospital; William Dobinson Halliburton, B.S. (Obtained the number of marks qualifying for the Medal), Sidney Harris Cox Martin, B.S., Hubert Montague Murray, William Pasteur, Reginald Pratt, William Camac Wilkinson, B.A., Sydney, University College; Henry Hoole, Charing Cross Hospital; Edmund Wilkinson Roughton (Gold Medal), St. Bartholomew's Hospital; John Frederick William Silk, King's College.

Logic and Psychology only—Robert Henry Scanes Spicer, B.Sc., St. Mary's Hospital; Sidney Worthington, Guy's Hospital.

M.B. Examination—Examination for Honours (Medicine) William Thorburn, B.Sc., (Scholarship and Gold Medal); John Hervey Jones, Owens College; Alfred Jefferis Turner (Gold Medal), University College; Charles Edwin Purslow, Birmingham School of Medicine; Frank Rushworth, St. Bartholomew's Hospital; Francis Helen Prideaux, London School of Medicine for Women, (First Class).

William Ayton Gostling, B.Sc., John Joseph Powell, University College; Frederick William Bennett, Owens College; Edmund Percival Cockey, St. Mary's Hospital (Second Class).

Herbert Ritchie Spencer, University College; John Philip Glover, St. Thomas's Hospital (Third Class).

Obstetric Medicine—A. H. Nicholson Lewers (Scholarship and Gold Medal), John Joseph Powell, University College; William Thorburn (Gold Medal), Owens College; Francis Helen Prideaux, London School of Medicine for Women; Frank Rushworth, St. Bartholomew's Hospital (First Class).
William Ayton Gostling, University College; Edgar March Crookshank, Harry Lord Richards Dent, King's College; George Elliott Caldwell Anderson, Guy's Hospital (Second Class).
John Raglan Thomas, St. Bartholomew's Hospital (Third Class).

Forensic Medicine—Edmund Percival Cockey (Scholarship and Gold Medal) St. Mary's Hospital; Alfred Jefferis Turner (Gold Medal), University College (First Class).
Ernest Septimus Reynolds, William Thorburn, Owens College; George Elliott Caldwell Anderson, Guy's Hospital; Francis Helen Prideaux, London School of Medicine (Second Class).
Arthur Hamilton Nicholson Lewers, John Roberson Day, John Joseph Powell, University College (Third Class).

B.S. Examination—William Henry Bowes, Charles Gross, Guy's Hospital; Joseph Collier, William Thorburn, B.Sc., Owens College and Manchester Royal Infirmary; Charles Reginald Elgood, William Ayton Gostling, B.Sc., Herbert Ritchie Spencer, University College; Joseph Langton Hewer, St. Bartholomew's Hospital; Francis Helen Prideaux, London School of Medicine and Royal Free Hospital (First Division).
George Elliott Caldwell Anderson, William Thomas Frederick Davies, Maurice Parry-Jones, Guy's Hospital; George Frederick Cooper, St. Thomas's Hospital; Robert Nightingale Hartley, Leeds School of Medicine; Eugène Arthur Laurent, University College (Second Division).

B.S. Examination for Honours—Surgery—Joseph Collier (Scholar and Gold Medal), William Thorburn, B.Sc. (Gold Medal), Owens College (First Class).
William Ayton Gostling, B.Sc., Herbert Ritchie Spencer, University College (Second Class).
Frances Helen Prideaux, London School of Medicine; Joseph Langton Hewer, St. Bartholomew's Hospital (Third Class).

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 11th, 1884:—

Charles Edmund Adams, St. Bartholomew's Hospital; George Henry Baker, Charing Cross Hospital; Leonard Bramah Diplock, St. George's Hospital; George Thomas Hartley, Leeds School of Medicine; Percy George Lewis, King's College; Jno. Henry Spreat, St. Bartholomew's Hospital; Robert Wrigley, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Charles Albert Adams, Charing Cross Hospital; James Young, St. Bartholomew's Hospital.

Small-pox at Trieste.—Small-pox has been raging in this town for some time, and there are on the average about 25 cases a day, without counting milder cases.

The Albany Memorial Hospital.—It was decided at a large and influential meeting at Brighton, on Saturday last, to promote a local fund for the purpose of maintaining a certain number of beds in the National Hospital for the Paralysed and Epileptic for the reception of patients from Brighton and the surrounding neighbourhood.

Paisley Home for Incurables.—At a meeting held in Paisley on the 15th instant, under the presidency of the Lord Provost, it was resolved, on the motion of Mr. Stewart Clark, M.P., to form a committee for the purpose of providing a home for patients suffering from incurable diseases. It was intimated that a house for the purpose had been obtained by Mr. Archibald Coats, who would transfer it to the committee, and donations of 500*l.* each were announced from Mrs. Archibald Coats and Mr. James Coats.

The Association for Providing Trained Nurses for the West of Scotland, which is under the patronage of Her Royal Highness Princess Louise, is at present making urgent appeals to the public for funds, in order to prevent its total collapse. Nurses are sent out to attend the sick poor, and there can be no doubt that they do a great amount of good, providing attendance, medicine and nursing in all its different forms. The funds, however, have become all but exhausted, 500*l.* being required for meeting expenses. The ninth annual meeting took place on Wednesday, the 17th instant.

St. Mary's Hospital.—The two vacancies upon the junior medical staff of this hospital have been filled up by the appointment of Dr. Sidney Phillips and Dr. Robert Maguire. Dr. Phillips, who has for some years been Senior Demonstrator of Anatomy in the Medical School, and an assistant in the out-patient department, was elected to the senior vacancy. Dr. Maguire, who took the gold medal at the M.D. degree of the London University in 1882, is migrating from Manchester, where he has already made for himself a great reputation as a teacher; of the eight candidates whom he recently sent up for the M.B. degree of the London University, six passed, one of them taking the first place in honours in medicine. For the two vacancies there were eleven applicants, and St. Mary's Medical School may be congratulated on these strong additions to the permanent staff.

South London School of Pharmacy, 325, Kennington Road.—The following prizes were presented to the successful competitors at the school examinations held from the 3rd until 6th December, on Saturday the 13th, 1884:—Senior Chemistry: R. Atkinson, Medal; Thos. J. Clark, Certificate. Junior Chemistry: F. W. Taylor, Medal; F. B. Bennett, Certificate. Senior Botany: Thos. J. Clark, Medal. Junior Botany: G. D. Cooper, Medal. Materia Medica: J. B. Bennett, Medal; F. W. Taylor, Certificate. Pharmacy and Practical Dispensing: F. W. Taylor, Medal; F. E. Brown, Certificate. Extra Certificates of Merit: Messrs. Gooch, Marshall, Brown, Davies and Daintree.

Responsibility in Sanitary Matters.—Dr. Sieveking presided on Wednesday, December 17th, at the last of the lectures which the Sanitary Assurance Association have arranged this year at the Parkes Museum of Hygiene. The lecturer was Mr. Mark H. Judge, A.R.I.B.A., who delivered an address on "Public and Private Responsibility in Sanitary Matters." Mr. Judge began his remarks by asking his audience to consider whether there was any real cause for serious attention to the conditions under which we live — whether sanitary reformers from Moses and Mahomed to Edmund Parkes and Florence Nightingale had been right in the importance they had attached to man's environment? The answer to this must come from the physician, from whom the architect must be content to learn what conditions are essential to health, that he might be able to design dwellings so as to secure such conditions. The authority of Professor de Chaumont and Mr. Eric Erichsen was given to show that good sanitary conditions were not only essential to the maintenance of health, but often to the existence of life itself. Reference was made to the defects common to houses in all parts of the country. Speaking of main sewers Mr. Judge said that they were specially within the province of the engineer, and that the best constructed and ventilated main sewer was a piece of engineering with which the sanitary architect desired to have no direct connection. Across the outfall drain he constructs a sanitary moat with iron draw-bridge for easy access in case of invasion from without or mutiny from within. Mr. Judge criticised the powers conferred on Local Boards and their surveyors, and said that they did not possess the qualifications which would warrant the legislature in handing over to them the right to regulate the internal sanitary arrangements of our houses. He would strengthen the law by minimising its demands to essentials, and by insisting on its absolute enforcement. The responsibility of the individual owner or occupier should be increased, but in so far as the public authority pretended to interfere he would make it a real interference, and in every case where the law was not complied with, there should be some punishment meted out to those responsible for the breach. Mr. Judge concluded by suggesting light points, which, if embodied in the law, would define the duties of the public authority and the householder in such a way as to improve the health of the public and preserve the liberty of the individual. Of these suggestions the one to which most importance was attached was the second, viz.: "Every house drain to have between the house and the public sewer or common drain an air-chamber and disconnecting syphon trap or an air inlet-disconnecting syphon trap, in a position where it can be readily inspected by the officer of the sanitary authority." Dr. Sieveking, in opening the discussion, expressed his concurrence in the remarks of Mr. Judge, except with regard to the suggestion that medical men should be included among those entitled to certify the sanitary condition of houses. It was not the function of medical men to know of the whereabouts of pipes and drains, and

it would be misleading the public if medical men should pretend to certify about such things. Mr. Cave Thomas, F.S.S., Mr. Andrew Sterling, Mr. R. E. Farrant, and others having spoken, votes of thanks were given to the lecturer and to the chairman, and the meeting terminated.

THE JUBILEE OF THE BRUSSELS UNIVERSITY.—The whole of the number of the *Presse Médicale Belge* for November 30th is occupied with a description of the celebration of the fiftieth anniversary of the Free University of Brussels. The epithet of "free" was attached to it at its foundation, which took place in antagonism to the Catholic University, which was at that time the only one in existence; and it indicated its purport of affording an advanced education quite untrammelled by religious dogmas of any kind, the beliefs of professors and students forming no subjects of enquiry or direction. The anniversary of an institution like this, which after much up-hill work at first, and in spite of the calumnious opposition it was subjected to, has proved highly successful, would be a matter of great interest at any time, but is especially so now, when so critical a condition as to political and religious parties prevails in Belgium. The municipal authorities have always taken great interest in the prospects of the new University, and on this occasion took a leading part in conjunction with those of the University; and all was conducted with much enthusiasm and good temper. Professor Roubaix, the Dean of the University, in his address, protested against the dispirited views entertained by many in consequence of the recent successes of the enemies of free education, and maintained that the scientific spirit which had so often been stated as wanting to the Belgians has of late years established itself, as is shown by the intimate conviction now prevailing of the vast importance of instruction. Progress can no longer be arrested whoever is in power. Professor Rousseau, the Rector, pointed with satisfaction to the immense progress the "Free University" had made, and prophesied that what is now but a domestic festivity to celebrate this will in another half century have become an international one, to which many nations, then having also their free universities, will send their representatives. The Brussels University, he added, was no opponent to religious beliefs, but attached itself to none, leaving them to stand or fall according to the results of free enquiry. Next day about 2,000 present or former students from all parts of Belgium and other countries assembled, and formed themselves into a congress, at which the position of medical education was freely canvassed, all passing off without any violation of order, as might have been feared during the present excited state of the country. Banquets, theatrical representations and balls terminated what is evidently regarded as a most successful demonstration. The Medical Faculty of the University, now very prosperous, was a long time before it made much way, so that in 1844 it did not number more than 34 students; vigorous measures were then taken for its improvement, which have proved highly successful. One great defect in the regulations of this faculty, however, was brought about by the Catholic party in 1876, in which students of medicine were exempted from the necessity of examination in arts, and were allowed to enter the University when only 14 or 15 years of age. The repeal of the law is justly considered a matter of great urgency.

APPOINTMENTS.

BEATTIE, HENRY, L.R.C.P. Lond., M.R.C.S Eng.—Medical Officer to the South District, St. George-in-the-East Parish, *vice* Dr. Pritchard, deceased.

BELLAMY, EDWARD, F.R.C.S.—Examiner in Surgery to the Victoria University, Manchester.

COSGRAVE, E. MACDOWEL, M.D., Ch.M., L.K.Q.C.P., L.R.C.S.I.—Chair of Botany and Zoology in the Carmichael College of Medicine, Dublin.

FOX, W. P., L.R.C.P., L.R.C.S.—Resident Medical Officer to the Rochdale Infirmary, *vice* Herbert M. Gay, M.B., resigned.

GOULD, A. P., M.S. Lond., F.R.C.S. Eng.—Surgeon to the Hospital for Epilepsy and Paralysis, Regent's Park, *vice* Prof. Godlee, resigned.

HAYDEN, WILLIAM G., L.R.C.P. Lond., M.R.C.S. Lond., and L.S.A. Lond.—Medical Officer to the Bishopstone District, Wilton Union, *vice* Dr. D. M. Jones, resigned.

MASKEW, JOHN SHEPPARD, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer to part of the Third District, New Forest Union, *vice* Dr. Jenkins, deceased.

MASTERTON, JOHN, M.B. Edin., L.R.C.S. Edin., and L.R.C.P. Edin. —Medical Officer to the Second District, Alston-with-Garrigill Parish, *vice* Dr. W. R. S. Jefferiss, resigned.

PRAGER, I. F., L.D.S., L.R.C.S.I.—House Surgeon to the National Dental Hospital.

RICHARDSON, FRANK LEWIS CHARLES, L.R.C.P. Edin., and M.R.C.S. Eng.—Medical Officer to the Rhayader District and Workhouse, Rhayader Union, *vice* Mr. R. Richardson, deceased.

SALMON, ARTHUR GUY, M.B., L.R.C.P. Lond., M.R.C.S. Eng., L.S.A. Lond.—Medical Officer to the Fifth District, Bodmin Union, *vice* Mr. T. Q. Couch, deceased.

SUFFERN, A. C., M.D., M.Ch.—Assistant Medical Officer to the Borough Asylum, Winson Green, Birmingham, *vice* Dr. Dodds, resigned.

TUXFORD, HAROLD ARTHUR, L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer to the Second District, Eastbourne Union, *vice* Mr. J. P. Billing.

WILLIAMS, P. W., L.R.C.P.—Clinical Assistant to the Birmingham Borough Asylum, *vice* J. D. Bush, resigned.

VACANCIES.

DEVONSHIRE HOSPITAL, BUXTON, DERBYSHIRE.—Assistant House Surgeon. (*For Particulars see Advertisement.*)

NEWCASTLE-UPON-TYNE INFIRMARY.—House Surgeon. Salary, £50 per annum, with board, lodging and washing. Candidates must be registered in surgery, unmarried, and free from the care of a family. Applications and testimonials must be in the hands of the Chairman of the House Committee on or before December 29th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House Surgeon and Secretary. Salary, £80 per annum with board and lodging. Candidates must be registered practitioners. Applications, with testimonials, stating age, to be sent to the medical staff on or before December 27th.

THE QUEEN'S HOSPITAL, BIRMINGHAM.—Honorary Obstetric Officer. Candidates must be either Doctors in Medicine of a British University or Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin. Applications, testimonials, and evidence of degree or diploma to be sent to the Secretary of the Hospital, from whom all further information may be obtained, on or before December 27th.

THE ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, BRIGHTON. —House Surgeon. Salary, £80 per annum, with board, lodging, and washing. Candidates must be qualified both in medicine and surgery, and registered under the Medical Act. Applications, with recent testimonials, to be sent to the Chairman of the Medical Committee, before January 2nd, 1885.

TIVERTON UNION.—Medical Officer to the Bampton East and West Districts, *vice* Mr. Edward Nason, resigned. Bampton East District—Area, 7,851. Population, 1,362. Salary, £27 per annum. Bampton West District—Area, 14,062. Population, 1,888. Salary, £35 15*s.* per annum.

WOLVERHAMPTON UNION.—Medical Officer for the Second District, *vice* Mr. W. Hayward, resigned. Area, 1,331. Population, 26,352. Salary, £95 per annum.

DEATHS.

BAYLIS, C. O., M.D., M.R.C.S., at 62, Windsor Road, Southport, Lancashire, on December 12th.

SNAPE, GEORGE HENRY, M.R.C.S., at 73, Rodney Street, Liverpool, on December 13th, aged 40.

WASHBOURN, T. B., M.D., at Ashmeade House, Gloucester, on December 11th, aged 55.

WILLS, J. S., M.R.C.S., at Thorncombe, Dorset, on December 8th, in his 59th year.

NOTES, QUERIES, AND REPLIES.

Royal College of Surgeons.—The following are the subjects required at the second examination in Physiology for the membership of the College, viz :—1. HISTOLOGICAL.—The Structure of the Tissues of the body; the Structure of the Organs of the body; recognition of microscopical preparations of the Tissues and Organs. 2. CHEMICAL.—The composition of Food, and of the Tissues, Secretions, Excretions, and other Fluids of the body. 3.—PHYSIOLOGICAL.—The Physiology of Digestion, Absorption, Circulation, Respiration, Secretion, Nutrition, Animal Heat, and Animal Motion. The Functions of the Nervous System and Sense Organs. Reproduction. A practical acquaintance with the methods of microscopical and chemical examination will be required under heads 1 and 2.

Royal College of Surgeons.—Members of the Royal College of Surgeons competing for the Jacksonian Prize of the College, are reminded that their essays for the same must be sent in to the Secretary on or before Wednesday the 31st instant. The subject for this prize is "The Surgical Treatment of Uterine Tumours, both Innocent and Malignant." For the ensuing year, the subject is "The Diagnosis and Treatment of such affections of the Kidney as are Amenable to Direct Surgical Interference." The collegiate triennial prize will not be awarded until early in 1886. The subject for it is "The Nature of Inhibitory Action in the Animal Body to be elucidated by Original Research." The competition is limited to Members of the College only.

Lock Hospital.—It is obvious that students ought not to be altogether excluded. It is not desirable, however, that any but senior students should attend, and in restricted numbers.

COMMUNICATIONS RECEIVED—

Sir ANDREW CLARK, London; Dr. CHAMPNEYS, London; Dr. ASHBY, Manchester; Dr. HERMAN, London; Dr. R. A. GIBBONS, London; Mr. WAGSTAFFE, Sevenoaks; Dr. BENHAM, London; Dr. CLIFFORD BEALE, London; Mr. BERKELEY HILL, London; OUR VIENNA CORRESPONDENT; Messrs. HUDSON & CARR, London; THE SECRETARY OF THE METROPOLITAN HOSPITALS SUNDAY FUND, London; THE SECRETARY OF THE SOCIETY OF ARTS, London; Mr. E. A. FARDON, London; Mr. W. E. PORTER, Lindfield; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. J. WILLING, London; Mr. P. BOOBYER, Newcastle-on-Tyne; THE HON. SECRETARIES OF THE HOSPITALS ASSOCIATION, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE HON. SECRETARY OF THE ACADEMY OF MEDICINE IN IRELAND; Dublin; Dr. LUSH, Weymouth; Mr. W. J. SPENCE, Bradford; THE REGISTRAR OF THE UNIVERSITY OF LONDON; Mr. A. J. HARVEY, Fulham; Mr. J. F. PINK, London; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Mr. A. HODGES, London; THE REGISTRAR OF THE MEDICAL SOCIETY, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Messrs. SHAW & SONS, London; Mr. F. W. LOWNDES, Liverpool; THE REGISTRAR-GENERAL FOR ENGLAND, London; Dr. J. W. LONGMORE, London; Dr. STEINBACH, Philadelphia; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Mr. T. M. STONE, Wimbledon; Dr. DUDLEY BUXTON, London; OUR GLASGOW CORRESPONDENT; Dr. J. WARD COUSINS, Southsea; THE SECRETARY OF THE CLINICAL SOCIETY, London; THE SECRETARY OF THE SANITARY ASSURANCE ASSOCIATION, London; THE SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE REGISTRAR-GENERAL, Brisbane; Dr. A. G. BARRS, Leeds; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London.

BOOKS RECEIVED—

Soils and Sites, by Arthur Ransome, M.A., M.D., F.R.S.—Wasting in Infants, by T. C. Railton, M.D.—The Nature and Treatment of Blackwater Fever, by J. Farrell Easmou, M.D.—Annual Report of the Metropolitan Public Garden, Etc., Association—Nursery Hygiene, by Boyd Burnett Joll, M.B. Lond.—Brass Repoussé Work, by Madame Amélie—Osteotomy and Osteoclasis, by C. T. Poore, M.D.—Report of the Council of the Metropolitan Hospital Sunday Fund, 1884—Lumley's Public Health—Medical Electricity, by Henry Woodward—Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England, Second Edition—The Pharmacopœia of the British Hospital for Diseases of the Skin, London, Third Edition—The Ear, by C. H. Burnett, A.M., M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Medical—The Students' Journal and Hospital Gazette—Berliner Klinische Wochenscrift—Société Médicale—Journal of Cutaneous and Venereal Diseases—Revue Général d'Ophthalmologie—The Polyclinic—Fortschritte der Medicin—The Journal of the Vigilance Association—Sanitary Journal, Ottawa—The Canada Lancet—The Journal of the British Dental Association—Journal of the Society of Arts—The Canadian Practitioner.

APPOINTMENTS FOR THE WEEK.

Friday, December 19 *(this day).*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CHARING CROSS HOSPITAL MEDICAL SCHOOL, 12 noon.—Distribution of Prizes, by H. B. Martin, Esq., Treasurer of the Hospital.

UNIVERSITY OF LONDON, 5 p.m. Mr. Victor Horsley's Fourth Brown Lecture, subject—"Urethral Fever."

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 1, ADAM STREET, ADELPHI, 7.30 p.m.—Mr. H. E. Armstrong, "The Statistics of the Medical Officer of Health as a Criterion of Sanitary Progress."

Saturday, December 20.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, December 22.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, December 23.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic, 3 p.m.; St. Mark's Hospital, 9 a.m.; St. Thomas's (ophthalmic operations), 4 p.m.

CLINICAL SOCIETY OF LONDON.—Adjourned Debate on "Charcot's Joint Disease."

MANSION HOUSE, 2.30 p.m.—Meeting of Constituents of Metropolitan Hospital Sunday Fund.

Wednesday, December 24.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

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SUMMARY OF CONTENTS, DECEMBER 13.

MEDICAL TIMES

AND GAZETTE.

No. 1800 LONDON, SATURDAY, DECEMBER 27, 1884.

Contents.

WITH TITLE-PAGE AND INDEX.

A CLINICAL LECTURE.

ON ANEURYSM OF THE AORTA.

By GEORGE JOHNSON, M.D., F.R.S.,

Professor of Clinical Medicine, Senior Physician to King's College Hospital.

GENTLEMEN,—A case of aneurysm of the aorta, now in Craven Ward, presents some interesting features, with reference especially to diagnosis, to which I desire now to direct your attention.

W. D., aged 51, admitted October 29th, 1884. For seven years he was a guard on the Great Western Railway. Since then he has been for years an inspector on the same line. His life has been on the whole a laborious one; he has been in the habit of lifting heavy weights; he has been much exposed to cold, and has been a rather liberal consumer of beer, spirits, and tobacco, but until lately he has had very little illness.

About a month before his admission he began to complain of pain in the back of the chest, with palpitation and dyspnœa on slight exertion.

These symptoms have continued, and rather increased.

The pain is of a gnawing character, and is most severe about the angles of the scapulæ. It is made worse by the recumbent posture, and for ease he has to be propped up in bed at night.

The sounds of the heart are normal. On auscultation over the manubrium sterni a loud impulse is heard, followed by an accentuated second sound. There is no blowing sound. In the first left intercostal space a pulsation is felt by the end of the finger, and on pressing the chest-end of the stethoscope firmly over the top of the sternum, the ear-end of the instrument is seen to move freely with each arterial pulsation. On auscultation over the spinous processes of the second and third upper dorsal vertebræ loud tracheal breathing and voice are heard.

The left side of the chest appears somewhat flattened, and is, in fact, three-quarters of an inch smaller than the right.

It is somewhat, though not much, less resonant on percussion, but the respiratory murmur is much feebler on the left side, and especially over the upper lobe. The vocal resonance and the vocal fremitus are much lessened on the left side.

He coughs occasionally, but there is nothing remarkable about the cough. The radial arteries are hard and tortuous, the pulses on the two sides being equal. The pupils are equal. The voice is natural and there is no dysphagia. The urine is normal.

The physical signs amply suffice for the diagnosis of an aneurysm of the transverse aorta, which pulsates against the sternum in front, and presses the bifur-

cation of the trachea back against the bodies of the upper dorsal vertebræ, and by its pressure on the left bronchus lessens the supply of air to that lung.

He has been kept absolutely at rest with permission to sit up occasionally in a chair near the bed. He has a nutritious but unstimulating diet, and small doses of morphia to quiet the cough; and as a result, mainly, I believe, of the rest which is the chief remedy in these cases, he has less pain and general discomfort than when he came in. It is evident, however, that he is in daily and hourly peril of his life. With the cough there is an occasional tracheal wheeze which probably results from irritation and congestion of the mucous membrane of the windpipe, excited by the pressure of the aneurysm, and if, as often happens in such cases, the wall of the trachea becomes inflamed and ulcerated, there will be a sudden burst of bleeding and speedy death, either from suffocation by hæmorrhage into the bronchi, or from exhaustion by mere loss of blood.

In the case which we have now under observation, the direct physical signs of aneurysm are so obvious that the disease could not well be overlooked, but cases of aneurysm of the aorta are not seldom met with in which these direct physical signs are obscure or even entirely absent, and in some of these cases we derive invaluable assistance from the use of the laryngoscope.

Here is a specimen of an aneurysm of the arch of the aorta compressing the left pneumogastric and recurrent nerves. The case is published in the 15th volume of the "Pathological Transactions" (p. 72). The patient, a hawker of intemperate habits, was admitted under my care in July, 1863, with symptoms which were at first supposed to indicate laryngitis. The main symptoms were cough, dyspnœa, laryngeal stridor, hoarseness, and dysphagia.

At my visit the stridor had ceased, and I saw with the mirror only a slightly congested larynx without swelling, the arytænoid cartilages and the vocal cords being freely movable, and the glottis opening fully in inspiration.

I suspected aneurysm, but a careful examination failed to discover any physical sign of the disease; there was no abnormal dulness on percussion, no pulsation or bruit, no inequality of pulses or pupils. Two days after his admission he spat up a few mouthfuls of florid blood, and again two days later, at 1.15 p.m., he suddenly became faint, and vomited three quarters of a pint of florid blood. No more blood came up, but he rapidly became weaker, while dulness on percussion over the stomach indicated a probable accumulation of blood into that viscus. He died at 5 p.m. The stomach was full of blood which had escaped from an aneurysm the size of a small orange, which projected from the posterior wall of the transverse aorta. By an oval opening it communicated with the œsophagus. The trunk of the left pneumogastric and its recurrent branch were both compressed by the aneurysm.

In this case the laryngoscope, by showing the absence of disease of the larynx, rendered the presence of an aneurysm much more probable than it would have been without such aid. The laryngeal symptoms were no doubt the result of spasm of the glottis, excited by pressure on the trunk of the vagus.

When an aneurysm or other tumour presses on one recurrent nerve, the result is generally unilateral palsy of the laryngeal muscles, indicated by immobility more or less complete of one vocal cord; and when, as usually happens, the *abductor* muscles are chiefly affected, the cord remains nearly motionless in the median line of the larynx, even during a deep inspiration. I have met with a considerable number of cases in which the discovery of the laryngeal palsy by the aid of the mirror has led to the further discovery, in some cases, of an aneurysm, and in others of a cancerous or other tumour pressing on one recurrent nerve.

When an aneurysm presses on the *trunk of the vagus*, as well as on its recurrent laryngeal branch, *both* sides of the larynx may be affected either by spasm or by palsy.

In the 23rd volume of the "Pathological Transactions" (p. 66), Dr. Baümler has published a case of bilateral palsy of the larynx caused by an aneurysm of the innominate artery pressing on the right vagus and recurrent nerve; and in the 24th volume of the same "Transactions" I have published a case of bilateral laryngeal palsy from an aneurysm of the aorta pressing on the left vagus, and recurrent.

I have discussed these cases, and given what is now generally accepted as true, my theory of the production of bilateral palsy of the larynx from pressure on the trunk of one vagus in the "Medico-Chirurgical Transactions" (vol. lviii., p. 29). My patient, a man 45 years of age, had suffered for nearly a year from dyspnœa, with stridor, and a feeble but tolerably clear voice. The vocal cords were of their natural colour, nearly touching each other in the middle line, and nearly motionless.

During inspiration the glottis did not open as in the normal state, but on the contrary the cords were pressed nearer together by the inspired current of air; while in expiration they were slightly pushed apart by the outgoing stream of air. This condition of larynx led to a careful examination of the chest, and the discovery of dulness on percussion over the manubrium sterni, and a palpable and audible impulse in the same position; hence the diagnosis of aneurysm.

For some months the dyspnœa had been so urgent that he had been unable to lie down, and he was much exhausted from want of rest. The day after his admission Sir William Fergusson, at my request, performed tracheotomy. This afforded great relief, and enabled him to sleep for several hours continuously.

Two days afterwards, however, symptoms of pleuropneumonia set in, and on the fourth day after the operation he died. An aneurysm the size of an orange projected backwards from the transverse aorta. The left vagus and its recurrent branch were compressed by the tumour, while the right vagus and recurrent were free and normal. The preparation is on the table.

For a full explanation of the phenomena of bilateral spasm and palsy of the larynx from pressure on the trunk of one vagus, I must refer you to my paper before mentioned. The main points are that while pressure on one recurrent, which is a purely motor nerve, may cause spasm or palsy of the muscles on the same side, pressure on the vagus, which contains both afferent and efferent fibres, may affect both sides of the larynx through those commissural fibres in the nervous centre by which the nerves on the two sides are intimately connected. The laryngeal muscles are pre-eminently bilateral in their normal physiological action. This is explained, as the late Dr. Lockhart Clarke demonstrated, by the decussation of their fibres of origin in the medulla oblongata.[1]

Then, as irritation of one vagus may through its efferent fibres excite a reflex bilateral spasm, a prolonged irritation, by the pressure of an aneurysm, may cause a structural change in the closely connected nerve nuclei, with resulting bilateral palsy of the laryngeal muscles. Such structural change in the nervous centre as a result of peripheral irritation, is analogous to the anatomical changes which Dr. Lockhart Clarke demonstrated in the spinal cord as a result of traumatic tetanus. Facts and arguments in support of this view are given in the paper before referred to.

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1 "Philosophical Transactions," 1868, pp. 272, 273.

Aneurysm of the aorta may cause stridulous breathing and dyspnœa, not only by pressure on the pneumogastric and recurrent nerves, but also by direct pressure on the trachea. Of this I have seen several examples; but the most interesting case I saw in consultation with my friend and former pupil, Dr. Richards, of Winchester. A gentleman, 33 years of age, had suffered from shortness of breath, with noise in the throat, on any unusual exertion, for nearly a year. When I saw him on October 30th, 1871, there was loud stridor on a deep inspiration; but with this the voice was clear and distinct, indicating, as I at once said, that the obstruction which caused the stridor was below the larynx. The laryngoscope showed nothing more than slight redness of the mucous membrane, without swelling. The vocal cords moved freely; and, during a deep inspiration with a widely open glottis, there was loud stridor, evidently originating below the larynx. Suspecting aneurysm, I carefully examined the chest. There was no abnormal impulse or dulness on percussion. On auscultation behind, over the upper dorsal spinous processes, there were loud tracheal stridor and vocal resonance. The respiratory murmur was decidedly more feeble over the lower lobe of the right lung than over the corresponding part of the left side. There had been occasional difficulty in swallowing. The pulse was equal at the two wrists. The right pupil was smaller than the left—a result, probably, of iritis some years before. The diagnosis was, aneurysm of the transverse aorta pressing on the trachea. I did not see the patient again; but I learnt from Dr. Richards that the symptoms became steadily worse, until he died from apnœa on November 20th, three weeks after his visit to me. An aneurysm of the size of a walnut projected from the posterior wall of the transverse aorta, and bulged into the trachea just above its bifurcation.

I show you a photograph of the parts, for which I am indebted to Dr. Richards.

The Trachea opened from behind, showing an Aneurism bulging through its Anterior Wall (from a photograph).

The opening of the right bronchus was somewhat more obstructed than that of the left, thus explaining the comparative feebleness of the respiratory murmur on the right side of the chest. One advantage of an exact diagnosis of this case was, that the patient was not subjected to the operation of tracheotomy, which, on a superficial view of the symptoms, might seem to have been indicated. The operation was not resorted to, because it was known that the obstruction in the trachea was below the point at which an artificial opening could be made, and therefore no relief could have been given by an operation.

With reference to the question of tracheotomy in such cases, it is of primary importance to distinguish between tracheal obstruction by direct pressure of an aneurysm, and laryngeal obstruction, the result of primary disease in the larynx or of spasm and paralysis of the laryngeal muscles, which may be caused by the pressure of an aneurysm or other tumour on the pneumogastric nerve and its branches. In most cases the diagnosis by the aid of the laryngoscope is not difficult. If you see on laryngoscopic examination a perfectly healthy larynx and a widely open glottis during inspiration, you may be sure that the stridor and dyspnœa are the result of obstruction below the larynx. But, if unfortunately you have not learnt to use the laryngoscope, auscultation will help you to distinguish between laryngeal and tracheal stridor. Laryngeal stridor is louder over the larynx than over the trachea just above the sternum.

Auscultation over the spinous processes of the vertebræ is often of great assistance. In the case of laryngeal obstruction, you hear the stridor most distinctly over the spinous processes of the middle cervical region. If, on the other hand, the stridor is the result of obstruction of the trachea just above its bifurcation you will hear it much more distinctly over the upper dorsal spinous processes than over the middle cervical region. When an aneurysm of the transverse aorta presses directly on the trachea, it very frequently causes a peculiar loud ringing cough, to which I wish now to direct your particular attention; for the recognition of this loud barking cough has more than once led me to the diagnosis of an aneurysm which might otherwise have escaped notice.

A few years since, I travelled from Ostend to Strasburg in the same railway carriage with a physician and a surgeon who were on their way to Switzerland. In the course of the journey I could not fail to notice that the physician had a very loud ringing cough, and I privately expressed to his travelling companion my belief that an aneurysm of the aorta pressing on the trachea was the cause of the cough. In consequence of my remark, the surgeon did his utmost to prevent his friend from exerting himself during the Swiss tour.

After leaving the train at Strasburg, I did not see the patient again, but I heard that after his return from Switzerland, he called to consult me, and hearing that I was not expected home for some days, he sought other advice, and in about six weeks he died suffocated, after the operation of tracheotomy for a supposed affection of the larynx had failed to relieve him.

I heard from a friend who was present at the *post-mortem* examination, that a large aneurysm of the aorta was found pressing against the sternum in front, and on the trachea behind.

When my friend and former pupil, Dr. Hebb, was house physician here in 1876, he heard amongst a crowd of out-patients a man coughing in this peculiar loud manner, and calling him forward discovered the physical signs of aneurysm of the aorta, and at once took him into the hospital.

About the same time one of the sisters told the house-physician that a man just admitted had such a loud, harsh cough, that she thought he must have an aneurysm, and her surmise proved to be correct. A case of aneurysm pressing on the trachea and causing the loud cough had shortly before been under my care in the hospital, and the lady had remembered and profited by my bed-side comments on the cough.

You see, then, that this loud ringing cough, occurring in a man who is not likely to be hysterical (the cough is somewhat like the loud bark of some hysterical women), is a valuable diagnostic symptom. The question then arises, what is the explanation of its peculiar resonant character? I believe that the

cough is tracheal, not laryngeal. I mean that the cough originates in the trachea and not, like most coughs, in the larynx. In ordinary coughing the patient takes a deep inspiration by which he fills the chest, then he forcibly drives the air through the partially closed glottis, and so the sound of the cough originates in the larynx.

But the cough which results from the pressure of an aneurysm on the front of the trachea is mainly caused by the forcible driving of the current of air through a constricted and mis-shaped trachea, as a consequence of which the walls of the trachea are thrown into loudly resonant vibrations.

With a forced inspiration, if not in ordinary breathing, there is usually in these cases tracheal respiratory stridor, the inspired current of air is interrupted by the narrowing of the canal, and that causes stridulous breathing, which originates at the constricted portion of the trachea. The stridor and the cough are both of tracheal origin.

CYSTS OF THE NECK.[1]

By JOHN H. MORGAN, F.R.C.S.,

Assistant Surgeon to Charing Cross Hospital and to the Hospital for Sick Children, Great Ormond Street.

The interest attaching to this subject centres not only in the diagnosis and treatment, but even more specially in the development and origin of the various forms of cysts which are found to occur in the region of the neck. They may be divided generally into those which are the result of some change of condition in parts previously healthy, and those which may be said to arise from developmental error. Naming them more specially, we find in the first category (1) Bursal tumours, (2) Hydrocele of the neck; and under the second (3) Cystic hygroma, (4) Congenital sebaceous cysts.

Bursal cysts are necessarily rare from the fact that few bursæ are normally found to be developed in this region, and their enlargement is therefore exceptional. The situation in which they are usually found is in front of the pomum Adami and between the posterior surface of the hyoid bone and the upper surface of the thyroid cartilage. In these situations they may sometimes become enlarged, and appear as round, smooth, single collections of fluid moving with the larynx, increasing slowly, if increasing at all, and causing little inconvenience or distress.

The second variety of acquired cyst, which goes by the name, not particularly well-suited, of hydrocele of the neck, has been described in this country by Cæsar Hawkins and others, is found in adults, and may occur even at advanced age, one of Mr. Hawkins' patients having been a man upwards of seventy years old.

The clinical characteristics are too well known to need further description here, but their origin and causation are still in doubt, and the main point of obscurity in their diagnosis is the difficulty of distinguishing them from solid tumours. In a case which I saw some time ago, in consultation with Mr. Holmes, and which occurred in an elderly woman who was very thin and emaciated, the difficulty of ascertaining the nature of the tumour was so great that it was with the most serious doubts that we ventured to insert a fine trocar. The swelling was about the size of an orange, moved with the trachea, was not attached to the skin, was loose, smooth, hard, and slowly increasing. It lay to the left of the trachea, and was quite painless, nor had it interfered with respiration or deglutition. Still, so great was the tenseness of the fascia overlaying it, and so solid the general feeling of the tumour, that we felt grave suspicion that it was of a malignant character. A puncture was, however, made, and a quantity of dark fluid was evacuated, and the patient, after several puncturings, got perfectly well.

In contrast with this case, on the contrary, there is now under my care in Charing Cross Hospital a woman, aged 47, in whom a swelling, bearing great resemblance to the cyst just mentioned, had been punctured by a surgeon in the country some time before she came to London, and is now a mass of malignant disease, too far advanced for removal, with a large ulcerated surface around the spot where the puncture was made, from which there is frequent hæmorrhage. The size of these cysts may vary from that of a walnut to that of a cavity capable of holding nearly a pint of fluid, and upon their size as well as upon their situation depend the effects which they produce upon the functions of the trachea and œsophagus. Although not invariably, these cysts are single, a fact of some importance, and one which distinguishes them from the variety which is next to be described.

Again, although the analogy of the name would lead to the impression that the contents are of an aqueous character, in all that I have seen, and in most that have been recorded, the fluid has been more or less dark coloured, as if it consisted of blood in some altered condition. When this is the case, it is possible that the effusion may have, in the first place, arisen from the rupture of a vein, which in the loose connective tissue of the neck might occur as the result of violent coughing, or severe exertion; but the cause of their origin is otherwise difficult of explanation, seeing that they have no analogies in other parts of the body, except perhaps the cysts of the arachnoid or hæmatoma of the scalp, both of which are the residual effects of effused blood.

Turning to the cysts of congenital origin, the disease which has been termed congenital cystic hygroma finds its most frequent situation in the neck, although it occurs in other parts where the areolar tissue is lax, as, for example, the back, the axilla, around the kidney, and in one case which I exhibited at the Clinical Society, in the forearm and hand.

In the neck the growth lies beneath the deep fascia, and dips between the muscular interspaces. This form is always polycystic, and the spaces which divide the sections of the tumour can usually be detected beneath the skin. They are generally situated in the posterior triangle of the neck, and do not often pass across the median line. In size and in the number of component parts they show very great variety, but, as a rule, one or two large collections of fluid seem to keep the smaller in check, as they are found to enlarge when the others are emptied. Otherwise their growth is capricious. There is also a great variety in the thickness of the surrounding walls, the larger ones being covered by a smooth, glistening, finely fibrous texture, whilst the smaller are confined by tissue much denser, though identical in structure. So, too, the contents may exhibit every variety of colour and consistence, so as in some instances to consist of dark grumous fluid in which float patches of lymph coagulum, in others of clear serous fluid, the nature of which has been investigated, but the composition throws no light upon its origin.

Not infrequently the walls contain solid masses, which are merely exaggerations of cellular tissue, and are always of an innocent nature. I shall not dwell here upon the diagnosis of these tumours, which, as a rule, is sufficiently obvious; but the two points on which

[1] Read before the Medical Society of London on December 1st, 1884.

I especially seek for information are the origin and the treatment of these cysts.

As regards the first point, the suggestion has been thrown out by Sir James Paget, in a paper in the Medico-Chirurgical Society's Transactions, 1878, "that there is a probability that some congenital and infantile cysts, and even some ranulæ, may be derived from branchial canals closed at both ends and distended with fluid, as hydrocele in the inguinal canal may be formed by the filling of part of a canalis vaginalis."

The suggestion is followed by Mr. Treves, who has described, in the Transactions of the Pathological Society, 1881, a case of cystic hygroma of the neck, where beside one very large cyst there were several smaller, one of which lay in the line of the second branchial cleft. For my own part, I cannot but regard this as a coincidence, seeing that the larger number of these tumours are placed in situations where there can be no possible connection between them and the branchial clefts. Nor do their structure or contents seem to bear out the analogy between them and a hydrocele of the tunica vaginalis, which is formed by hypersecretion of a section of serous membrane. A closer resemblance would seem to commend itself between these tumours and those hypertrophies of the connective tissue which are not infrequently found in the limbs, and which are mainly due to an excessive growth of the fatty tissue, as in the case of an hypertrophied foot depicted in Holmes' work on "Diseases of Children," which after amputation was found to be due only to an unusual deposition of fat and cellular tissue, the muscles as well as the bones being normal. Not long ago I removed a large congenital tumour from the palm of a child's hand which on examination proved to be nothing but a mass of hypertrophied fat and cellular tissue. In another case I removed a very enlarged toe from a child, in which an increase of fat and cellular tissue was all that could be seen to cause the hypertrophy. So I believe these tumours to consist of an exaggeration or hypertrophy of the cellular tissue of this region, which is naturally so extensive, and from the anatomical nature of the parts is of a somewhat looser character than in other regions of the body, except those where a similar development sometimes, though more rarely, is met with.

In reference to treatment, the circumstances of the case may make various expedients desirable. Tapping with a fine trocar may effect a permanent diminution, and should be tried before more active measures.

A short time since a child of eight weeks was brought to me at Great Ormond Street Hospital with a very large hygroma, occupying the right side of the neck. One large cyst stood out prominently, and this I tapped, withdrawing about 2½ ounces of dark brown viscid fluid. When seen the following week the cyst seemed to be nearly as full as ever, but there was no sign of inflammation, and the child was not seen again for ten days, when it was found that the swelling had very nearly disappeared, and the skin, which had been tense, now hung in loose flaps over the region of the swelling. In another case a boy of 9 years old was brought to me with a large oval swelling over the thyro-hyoid region. On putting in a fine trocar, some clear gelatinous fluid issued, but as it was too thick to pass freely I placed the patient under chloroform, and proceeded to dissect out the cyst, which extended itself rather deeply, and was connected with several smaller ones which lay behind and dipped down between the trachea, the muscles, and large vessels, and required a long and careful dissection. The whole mass was taken away, and though the cavity was deep, healing proceeded satisfactorily, and the boy was soon able to leave the hospital. Mr. Smith, who has described several cases of this affection, recommends the use of setons, preferring for the purpose carbolised catgut, and suggests the use of Morton's iodoglycerine.

But the great danger to this and to all other treatment lies—(1) In the very extensive connections which may exist, and be prolonged into parts where pressure may cause serious danger. (2) In the readiness with which these structures become inflamed.

The serious nature of the inflammation which so readily occurs in this tissue even from a blow, or from the introduction of setons in parts where danger cannot arise from impeded respiration, such, for instance, as the outer part of the neck or the axilla, was pointed out by Mr. Smith in two cases which he showed at the Clinical Society. This would suggest the desirability, when possible, of taking a somewhat bolder course, and of opening as many of the sacs as possible, and by free drainage and antiseptic dressing avoiding any septic complications, and trusting to a limited inflammation producing cohesion of the remaining tissue. But the feasibility of such a course must depend upon the size and position of the cysts, as well as upon the nature of their deeper connections. The first of these may prohibit all interference, as in the case of a very young child which was brought to me on account of a hygroma on both sides of the trachea, but which did not seem to have exerted any baneful effects from pressure. The child caught a slight cold and died suddenly. I made an examination with the assistance of Dr. Angel Money, and found that the tumour was composed of many cysts containing dark brownish fluid in which were some floating clots of decolourised fibrin. It extended downwards on each side of the trachea into the thorax and behind the pleura on each side. The trachea was compressed and narrowed, and bronchitis supervening, death had occurred in consequence of the obstruction to respiration. The knowledge obtained from this case has made me refrain from interfering in a similar one which is now under my observation.

In the previous class of cases, viz., the hydroceles of the neck, where the cyst, however large, is single, such treatment is much more easy of application, and there would now be no hesitation in opening the cavity, and after evacuation of its contents, in washing it out freely with antiseptic lotion, draining and keeping aseptic after the usual method.

The remaining class of cysts to which I will refer have no doubtful origin. The sebaceous cysts which occur congenitally in the neck are doubtless the relics of some aberrant portion of epiblast which has become misplaced in the course of development of the body. They are often deeply situated, and have a further interest from the fact that they are in most cases found to lie in the position of one of the branchial arches or of the clefts between them, which are found to exist in an early stage of embryonic development. Thus, they are found beneath the tongue, probably in connection with the first branchial arch which forms the lower jaw, and they occur in the line of the sternomastoid, particularly about its insertion into the sternum and clavicle, where, in fact, the fourth and fifth arches unite to form the anterior wall of the neck. Other relics of these arches and of the clefts between them are found in these situations, such as branchial fistulæ and supernumerary auricles, several examples of which I have come across during the last few years. I have met with a large number also of these congenital cysts, and during the last year at the Children's Hospital have operated in four cases for their removal. Beyond the ordinary altered sebaceous material and a few rudimentary hairs, I have not found any of those other structures which are occasionally met with in tumours of a similar character, such as bone, teeth, &c. In the case of a woman who came to me at Charing Cross, I evacuated

from a large swelling below the jaw, which raised the floor of the mouth, a quantity of material, having the consistency of putty, of a greyish pink colour and with a very foul odour, which evidently belonged to a cyst of this nature. The patient had been under treatment on several occasions at other hospitals, and when seen by myself was in too weak a state of health to submit to the prolonged and dangerous dissection which would have been necessary for the removal of the sac. It became much reduced in size by means of draining and frequent washing.

I have not alluded to hydatids, which may be found here as in other parts of the body, but have brought forward some points of interest in connection with this group of tumours in the hope of eliciting suggestions and information from the experience of members of the Society.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng.
President of the Health Department, Social Science Association, and of the Epidemiological Society.

(Continued from page 776.)

Scorbutus—(continued).

Dr. Burt described the annual occurrence of Land Scurvy in the native lunatic asylum, Moorshedebad.[82] In 1822 his attention was drawn to the disease in consequence of the occurrence of severe ptyalism caused by a small dose of calomel given to a patient with slight fever. The disease was "very insidious in its progress, and Dr. Burt was inclined to think that it might have occurred in previous seasons, and have been reported as fever or dysentery, these being the first symptoms of which the patient complains, *although his gums may have been in an ulcerated state for months before.*" In 1825 Mr. J. Hutchinson[83] saw cases of scurvy in Cachar. He described a fatal case as occurring there in a Sepoy of the 7th N.I.

In 1834 Mr. D. Macnab published[84] an account of scurvy as it occurred in that and the preceding year among the native troops at Nusserabad. No similar visitation had attacked the troops there during the previous 14 years; but it seems to have prevailed there extensively in a cavalry corps about the year 1820. The people of the bazaars escaped, very few of the camp followers suffered.

Generally the disease was very intractable, nearly every mode of treatment which the surgeon's imagination could suggest (with the exception of antiscorbutics, the idea of lime-juice never having apparently occurred), including large bleedings, having been tried. In describing the disease as it then occurred in the 4th Regiment of Light Cavalry, at Nusserabad, Mr. T. Ross[85] says that he found medicine almost unavailing, although "mineral and vegetable acids were liberally employed." It was then usual to give nitrated vinegar in scurvy, but the report does not mention lime-juice. Most of the fatal cases sank from diarrhœa. In July, 1837, Mr. Macnab laid another communication on scurvy before the Medical and Physical Society,[86] strongly recommending, as an antiscorbutic, the fruit of the Anola, Phyllanthus Emblica, Emblic Myrobalons. Dr. Waring, "Pharmacopœia of India," describes this fruit as acidulous, purgative, and astringent, being employed in tanning. This authority cites Dr. Irvine ("Medical Topography of Ajmeer," p. 118) as being of opinion that it does not possess any peculiar antiscorbutic virtues, and that, in this respect, it is not superior to any other acid vegetable astringent.

Dr. R. H. Irvine says that, when the disease described by Mr. Macnab (which occurred as a severe epidemic in the district of Ajmeer) appeared, bad grain was considered to be the cause, but he considered that facts did not seem to warrant this opinion. "The disease subsided as the season became milder."

In 1837-38, a great deal of scorbutic cachexia existed among the native troops at Agra.[87] Dr. W. L. Macgregor showed[88] that, in 1841-42, at Kurnaul, sloughing followed the application of blisters and leeches in the hospital of H.M.'s 3rd Buffs. This place appears to have been over-crowded, to have had a low verandah and an insufficient area, pent in by lofty buildings. The reporter adds, however, that scurvy appeared in other hospitals at Kurnaul during the same season. One of the most severe cases he ever witnessed occurred in a havildar of the 3rd Cavalry, on whom a blister had been applied to the nape of the neck, and the whole of the integuments and adipose substance were destroyed by the sloughing, laying the muscles completely bare. We may infer from the context that the soldiers had an abundance of excellent food. We thus see that—say between 1820 and 1842—scorbutus prevailed at Nusserabad in the W. and Cachar in the E.; at Kurnaul and Agra in the N.W.; in Assam in the N.E.,[89] and Arracan and Burmah in the S.E. Are we to consider that this widely ranging disease was a true epidemic? It apparently depended much upon the prevalence of dry seasons, causing augmentation of the price of grain, a valid source of disease among parsimonious Hindu Sepoys, who were the principal sufferers, serving in the field, or stationed in places distant from their homes, but a circumstance which could only have affected the European soldiers by diminishing their supply of fresh vegetables and fruits. The question of the epidemicity of scurvy will be continued presently.

An account[90] of the presumed remarkable efficacy of *free blood letting* in sea and land scurvy, by Deputy Inspector General Murray, Surgeon Bailey, R.N., and Assistant Surgeon Armstrong, of the 29th Regiment, deserves to be consulted as a curious document, illustrating the "good in everything" in therapeutics. A considerable amount of information regarding scurvy as it formerly prevailed in Indian gaols will be found in my chapter on Hospital Gangrene.

In his admirable *Medical Topography of Scindh*, the late Mr. Kinloch Kirk showed that the great characteristic of the Desert Tract, especially of Scindh, is its impregnation with saline matter, similar to what is obtained by the evaporation of sea water. Everywhere that a well is dug, the water is brackish and bitter. Throughout the Desert Tract, true scurvy is constantly endemic among the poorer natives, and there European troops have always been liable to scurvy, both in its masked and in its developed forms. There also scorbutic dysentery is a leading disease. Here it is noteworthy that, throughout the true Delta of the Ganges, the well water is brackish and undrinkable. Undoubtedly there is a considerable amount of scurvy in that immense tract, but there the disease is far less generally prevalent than it is in Scindh or Behar. The natives of the Delta use either river water or rain

[86] "Transactions of Medical and Physical Society," vol. iv., p. 14.
[83] *Ibid.*, vol. vii., part ii., p. 389.
[84] *Ibid.*, vol. viii., part i., p. 101.
[85] *Ibid.*, p. 130.
[82] *Ibid.*, vol. viii., part ii., p. 201 of Appendix.

[87] "Transactions of Medical and Physical Society," vol. viii., part ii., p. 282 of Appendix.
[88] *op. citat.*, p. 178.
[89] Dr. McCosh at a discussion of Medical and Physical Society of Calcutta, July, 1837.
[90] *Indian Journal of Medical and Physical Science*, N.S., vol. iii., p. 651.

water, collected in more or less well puddled tanks. One of the most important accounts of land scurvy in our Indian literature has been given by my friend Mr. Alexander Grant, in his excellent *Medical Sketches of the Expedition to China*, in 1840 (Finch's "Indian Journal of Medical and Physical Science," 1845). While stationed on the north side of Hong Kong, the 37th Madras N. I. suffered much from fever, dysentery, and malignant ulcers on the lower extremities. These unfortunate troops, ill-fed, being debarred by cast prejudice from eating much of such limited supplies of food as were available, and ill-lodged in tents and mat huts, which a hurricane finally levelled to the ground, became, Mr. Grant informed me, thoroughly scorbutic, and then sloughing of the cornea was rife amongst them. At the same time the Bengal European troops, similarly exposed and rationed scantily on weevilly biscuits and salt meat, were attacked with scurvy, bloated countenances, spongy gums, and legs swollen and covered with petechiæ, and often died suddenly from effusion into the cavities [Beriberi ?]. Ulcer was not developed in the European force, but cases of scorbutus occurred among the seamen in the ships.

In 1851 there appeared, in Mr. Woodcock's Prison Report, Appendix E., p. 150, a report by Mr. S. Clarke on scurvy in the Humeerpore Gaol, and at about the same time[91] Dr. A. H. Leith reported the frequence of scurvy among the prisoners confined in the Bombay House of Correction, evidently in consequence of the absence of an antiscorbutic ingredient in their food. The sickness was arrested by issuing a supply of *kokum*, the dried fleshy part of the *garcinca purpurea*, a tree which is cultivated in the Konkan. Having seen a notice, I think in Dr. Mouat's Gaol Reports, of the prevalence of scorbutus in Behar, I, on inspecting the principal gaols of that district in 1865, examined every prisoner, and found a purple line edging the gums (quite like the lead line, except in its colour) in the great majority of the prisoners.

I often, but by no means so generally, found this indubitable sign of scurvy in poor Bengalis, as I have mentioned in the chapter on Hospital Gangrene.

Scurvy was, in old times, one of the direst scourges of Indian native gaols. It was considered that, although probably more regularly fed, and at a greater cost than their brethren outside (when their food was not stolen by gaol servants), the prison dietaries fell short of the requirements of health in not being sufficiently varied, and especially in not containing a great number of spices and of antiscorbutic vegetables, such as *sag* (wild spinach), *mohwa* flowers, and cresses found in native gardens, and picked up in waste places, and by brooks and tanks. The wise measure of establishing a garden for each Bengal gaol, carried out by Dr. Mouat, having been for many years in operation, the danger of scurvy among the prisoners ought, by this time, to be greatly diminished; but now, as always, scurvy is an evil which appears to be ever ready to show itself in India. In December, 1868, we in Calcutta were surprised to see it reported[92] that an outbreak of scurvy had occurred in a fine Sikh regiment in Fort William. More than fifty were admitted to hospital, of whom five or six died, independent of twenty or more sent to their homes on medical certificate. The appearance of this disease was attributed to want of milk and butcher's meat, confined barracks, and protracted residence in an uncongenial climate.

The Sanitary Commissioners' returns give the following statistics of scorbutus in India. In 1880, 41 European soldiers were admitted, 1 died. Cases did not occur among the women and children. There were 1,149 cases, with 32 deaths, in the native army. The prisoners had 467 admissions, and 8 deaths. In 1881, the admissions of European soldiers were 33, without any deaths. One soldier's wife and 3 children were admitted. There were 903 Sepoys admitted, with 27 deaths. The number of prisoners treated was 411, of whom 9 died. In 1882, the admissions of European soldiers were 26. The women and children were free from the disease. Of the Sepoys, 471 were admitted, and 18 died. Among the prisoners, 362 were treated, with 6 deaths.

Carefully read, these statistics are full of invaluable suggestions. Thus the occurrence, annually, of from 30 to 40 cases of scurvy in our force of some 60,000 European troops proves that the men are never quite exempt from the tendency to scurvy which prevails in certain Indian localities, and that this spark of disease, which now smoulders, will burst into flame at any moment in the field, on foreign service, in sieges, or whenever the troops may be deprived of their due supply of fruit and fresh vegetables. It will be borne in mind that from 30 to 40 *admissions* per annum in such a body of men evidences a very considerable prevalence of scorbutic cachexia among those whose condition of disease is not so pronounced as to compel them to seek relief in hospital. The annual occurrence of from 400 to upwards of 1,000 cases of scurvy among the 115,000 men of the native army in time of peace shows that, although it does not rest with us to diet these Sepoys, it is a matter of great importance everywhere, whether in cantonments, in stations remote from their own districts, or in the field, and most especially in times of scarcity, that we should provide that abundance of good food, at moderate rates, shall be obtainable in their bazaars. The occurrence of a considerable amount of scurvy among prisoners is evidence that the gaol garden system needs extension. It is probable that very little of the scorbutus which occurs among prisoners originates in the gaols. The fact that, in the three years 1880-82, only five fatal cases of scurvy occurred in the gaols of the Bengal Presidency, which in the last of those years contained 59,489 prisoners, a large number of whom came from districts where scorbutus is constantly endemic, is evidence that the gaol garden system is working efficiently in that Presidency.

It appears to me that, carefully weighed, the whole of our facts regarding scorbutus and hospital gangrene in India may be viewed as more or less directly substantiating the truth of Kenneth Mackinnon's opinion that *land scurvy assumes an epidemic character in that country*. In one of his last writings,[93] that excellent observer remarked, "As far as my knowledge goes, in no other country has it been observed that land scurvy shows itself in an epidemic form, but it does so here, and particularly in Rajpootanah, and, as I think also, in Scinde. It was a knowledge of this which induced me, when a member of a committee directed by Government to report upon the probable causes of scurvy among the troops which came from England in the end of 1853, to give it as my opinion that the appearance of the disease on board so many ships, many of which vessels had, on previous voyages, brought troops in perfect health to Bengal, that the prevalence of scurvy depended upon an epidemic constitution of the atmosphere in that particular season. The presence of scurvy on board of ships is usually assigned to the continued use of salt provisions; there was evidence before us that the voyages had not been of inordinate length, and that the men had been freely supplied with fresh hermetically sealed meat and with potatoes prepared in the same manner. In fact, the salt meat theory, as entirely true, must be abandoned,

[91] "Transactions of the Medical and Physical Society of Bombay," No. 1., N.S. for 1851-52.

[92] *Indian Medical Gazette*, for 1868, p. 283.

[93] "The Epidemics of Bengal and N.W. Provinces." "Indian Annals of Medical Science," No. vii., p. 159.

for the Rajpootanah epidemic was among regiments of Native Infantry where no animal food is consumed, and I am inclined to believe that epidemic scurvy may be independent of every kind of diet, for these Sepoys in Rajpootanah used the same grain with the neighbouring villagers, who had no scurvy among them. In Scinde, and even at Lahore, a great prevalence of scurvy has been seen, with no changes in diet to account for it; and this is true also of the hills, as pointed out by Dr. Grant in his paper on Hill Diarrhœa.[94] The disease is also endemic in the gaols of the Sangor and Nerbudda territories. The whole question is very mysterious, for while in the hills and on the voyage round the Cape in the year I have spoken of, unusual damp might be held to influence the presence of disease, in Rajpootanah, on the other hand, when the epidemic prevailed in 1835, the season had been very unusually dry; and, strange to say, in Rajpootanah the disease was confined to Sepoys."

The above appeared in 1857. In like manner I have shown, *ante*, p. 790, vol. i., for 1884, that in the years 1830–33, 1837–38 hospital gangrene, the congener if not the offspring of scorbutus, affected alike the inhabitants of the village of Chittoor (South Division of Arcot, Madras Presidency), and the prisoners in the gaol, and both classes were attacked precisely at the same period. In like manner I have cited (at p. 792) Dr. Beaumont's report to the effect that, Indore having scarcely known this form of disease, sloughing phagedæna became so very prevalent during the rainy season and up to the end of 1872 that it was feared it was about to become established as an endemic disease. In five months there were 315 cases, with 51 deaths. It is particularly noticed that "there was nothing exceptional in the season or food supply."

The opinion that scorbutus has, from time to time, appeared as an epidemic, rests upon a considerable mass of evidence. We read in Hecker that it did so, more especially in Germany, in the year 1846, and with such severe and unusual symptoms that people were inclined to regard it as an entirely new malady. Hecker cites various authorities in evidence that, on several occasions in the 15th and 16th centuries, scurvy occurred as an epidemic in Europe.

The subject of land scurvy in India deserves a volume to itself. I have treated it concisely, but I think that I have given those who may desire to study the subject fully data which will enable them to refer to all the best authorities.

Anæmia.—See "Malarial Cachexiæ."

Anasarca.—See "Malarial Cachexiæ."

Beriberi.—See vol. i., for 1884, pp. 450 and 516.

Note on Bronchocele in India.

Since the appearance of my chapter on Indian Bronchocele, I have received from Dr. L. A. Waddell, resident physician Medical College Hospital, Calcutta, an interesting contribution to our knowledge of the pathology and therapeutics of this disease.[95]

Dr. Waddell, having examined the blood microscopically in four cases of goitre, found that anæmia was not present in either. In two of the cases there was decided plethora of blood corpuscles, and the hœmoglobin was also above the average.

In 1881, Dr. E. Woaker, who for several years had been using hydrofluoric acid in the treatment of goitre, published in the *Lancet*[96] a report giving the results of twenty cases treated by this method: he placed the recoveries at eighty-five per cent., concluding that the acid may justly be considered an anti-goitrous remedy which, although not a specific, deserves to be regarded as a basis of constitutional treatment. Reviewing Dr. Woaker's cases (which remained under treatment from 3 to 13 months, with an average of $7\frac{3}{4}$ months), Dr. Waddell infers that Dr. Woaker's percentage of recoveries requires to be considerably modified; but then, even with this qualification, a large margin of undoubted success must still be allowed to the hydrofluoric acid treatment. In two cases treated by Dr. Waddell, the sodium fluoride was taken with great disgust.

He considers that, in simple soft enlargements of the entire gland, by persisting with the fluorides, one may reasonably hope to effect ultimately a substantial reduction of the tumour, if not complete cure. It is clear that the agent is of but little avail in hard fibrous enlargements.

It is not probable that this plan of treatment will become established in India, considering the slowness of its action when small doses are given, and the intolerable nausea produced by large doses. It is held that "considerable anæmia," a condition to which all in India are sadly liable, "must attend the prolonged use of the drug, even in small doses."

As, however, it appears that hydrofluoric acid and the alkaline fluorides exert a decided therapeutic influence upon goitre, and as it is to be conceded that their use in combination with other agents may not improbably be found advantageous, these papers merit the full attention of Indian practitioners.

[94] "Indian Annals," No. 1.

[95] "The Physiological and Medicinal Action of Fluoric Acid and the Fluorides." Reprinted from the *Indian Medical Gazette*.

[96] *Lancet*, p. 448, vol. i.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH EASTERN HOSPITAL FOR CHILDREN.

CASES OF ACUTE TETANUS FROM UMBILICAL WOUNDS.

(Under the care of Mr. R. J. GODLEE.)

(For notes of this case we are indebted to Mr. M. Williams.)

Case I.

E. G., aged one week, was brought to the out-patient department on the 28th of October, 1884. The grandmother who brought it told us that the child was well nourished when born; lactation was continued regularly and with the normal periods of remission until the morning of the 28th, when the baby refused the breast. This refusal was attributed, according to the mother, "to a stiff jaw from cold." The mother was confined by a midwife.

When seen at 1.30 p.m. the jaw was found in a condition of trismus; the act of examining the child produced a well marked tetanic fit. The spasm was violent. The abdominal and thoracic muscles, with the muscles of the upper and lower extremities, were thrown into violent clonic spasm. The belly was tense and hard, and the walls of the chest expanded imperfectly in the effort of breathing; in fact, inspiration momentarily ceased, as was evinced by the intense cyanosis. The spasms were of a few seconds' duration. The pulses were imperceptible during the spasm. The muscles of the arms and legs were extremely rigid, and convulsed in a most violent manner. The attacks of clonic spasm were very frequent, re-

turning about every ten minutes ; touching, or otherwise exciting the child, was always followed by an attack.

Upon examining the umbilicus, a portion was still semi-attached ; the part looked neglected and far from clean, it was discharging a sanguineous pus and bled readily when touched. The relatives strongly objected to allow the patient to come into the hospital.

The baby was ordered a mustard bath hourly and a mixture containing bromide every second hour.

The grandmother returned with the child again at 8 p.m. The fits were now more frequent and more lasting. Cyanosis was intense. Complete trismus. The patient's body is now bent like a bow—opisthotonos. It can be readily lifted by placing two fingers beneath the occiput and two beneath its heels. The interval between the paroxysms of spasms is considerably less. The child is unable to utter any articulate sound. The surface of the skin is moist and the pulse rises and falls with the intensity of the spasms. It has taken no nourishment. Still refuses admission.

Word was sent the following morning that the child died in the night. The duration of the attack, from the onset to its death, was eighteen hours. An autopsy was not permitted.

Case II.

G. S., aged three weeks, was admitted into Barclay Ward on February 11th, 1884, with the following history :—For the past seven days has refused the breast, being apparently unable to swallow, owing—according to the mother—to the fixity of the jaw, due to "internal convulsions" ; occasionally the attacks are accompanied by stiffness and arching of the back backwards. Is wasting. The spasms latterly have been more severe, lasting and frequent. No previous illnesses. Parents enjoy good health. No history of tubercle or syphilis.

The child is thin and emaciated, has a brownish-yellow pigmentation of the skin. Temperature 98°, pulse, 100. The face is wrinkled and prematurely old-looking. Is very fretful. When watched for a few moments, or suddenly touched, rigidity of the muscles of the neck, trunk, and extremities results. The spasms, which are tonic, are persistent, intense, and prolonged, beginning in the face. The countenance assumes the "risus sardonicus." The rigidity extends to the muscles of the trunk, and finally all the voluntary muscles appear to become implicated. The muscles feel hard, tense, knotted, and rigid, and stand out cord-like. During the spasms the spine is curved posteriorly—opisthotonos, and the posterior cervical muscles forcibly extend the head. The jaw is fixed—trismus—and cannot be opened. During the interim the jaw is lax, and the mere introduction of food suffices to re-excite a fresh spasm. Respiration ceases during the paroxysms, for the child rapidly becomes cyanotic. The extremities are cold and blue. No congenital heart murmur. Breathing puerile and normal. No abnormalities of liver or spleen. There is a red, irregular, sloughy-looking wound over umbilicus, which has existed since its birth.

Was ordered a mustard bath every hour, with gr. j$\frac{1}{4}$ of bromide of potassium every second hour. Milk and peptonized emulsions as enemata frequently.

The same evening the spasms were still continual and more lasting. Cannot retain enemata. Attempts were made to feed it by passing a soft No. 12 catheter down the œsophagus, but this only excited fresh spasms, and was therefore given up. Sleep is entirely absent.

Next morning the temperature was 106·4°. Pulse almost imperceptible. The spasms continued every few seconds. Died asphyxiated shortly afterwards.

Necropsy twenty-six hours after death.—Body much emaciated. Subcutaneous fat almost absent. Muscular development deficient. Rigor mortis passing off. Hypostatic congestion over back, arms, and legs. The umbilicus projects about half an inch, centrally there is an irregular, sloughy-looking wound, not in any way connected with the abdominal cavity. The obliterated hypo-gastrics are visible on its posterior aspect. Abdominal cavity opened. The liver fills the whole of the epigastric region. The intestines are contracted and partly covered by omentum. On raising liver, stomach is seen to be pale and closely contracted. Both pleuræ are empty, their surfaces are smooth. Pericardium contains about half a teaspoonful of a dark brownish-yellow but clear fluid. Internal surface pale and smooth. Right side of heart distended with dark clotted blood. All the valves are regular in form and of a slightly reddish tinge. Foramen ovale imperfectly closed. The muscular tissue is pale. The thymus gland is medullary looking in colour and of a similar appearance on section. The lungs float in water, everywhere normally crepitating ; externally they are of a dark red colour with intermixed blue marbling ; on section the tissues are much engorged, especially at both bases ; dark fluid blood is readily squeezed out. Spleen, dark brownish red in colour, of flabby consistence ; on section the pulp is fragile and abundant. The capsule of kidneys is easily separable. Medullary and cortical substance normal. The substance of the liver is flabby. Lobules clearly recognisable. Uniformly red throughout. Small intestines contain flocculent pultaceous matter. Ileum contracted. Fæcal matter in large gut. Brain very soft ; longitudinal and lateral sinuses contain fluid blood. The dura-mater is healthy. Brain regularly formed. The pia-mater is delicate, containing numerous venous net-works ; the membrane is hyperæmic. The substance of the brain is pale and soft, lateral ventricles contain a small quantity of fluid, punctiform hæmorrhages visible, but not in great quantities. No further evidence of any abnormalities. The dura-mater of the cord was slit up, inner surface smooth, consistence firm. The cavity of the arachnoid was next opened. This was found to contain a small quantity of thick clear fluid. The pia-mater was much congested, little leashes of swollen vessels were visible coursing up the cord, the membrane itself was somewhat adherent to the cord-substance. The cord was hyperæmic and very soft, but no particular abnormalities could with the naked eye be detected.

Medical Times and Gazette.

SATURDAY, DECEMBER 27, 1884.

On Friday last, Charing Cross Hospital Medical School celebrated the fiftieth anniversary of its foundation. The proceedings commenced at noon with the distribution of prizes by Mr. Martin, one of the treasurers of the hospital. In the course of an admirable speech, Mr. Martin showed that although he had only recently become connected with the school, he had already made himself acquainted with its history, and that he took the deepest interest not only in its welfare, but in the rapid advances that are being made on all sides in every department of medicine. In the afternoon a dramatic entertainment was provided at Toole's Theatre by the Students' Club, one of the pieces played having been written especially for the occasion by the wife

of a member of the staff. A very considerable amount of histrionic talent was displayed, and it is needless to add that the house was well filled. In the interval between the pieces, Mr. James Cantlie recited an epilogue of his own composition recounting the various successes of past students in this country and abroad. In the evening the staff celebrated the event by holding their annual dinner at the Grand Hotel, on which occasion there were but two absentees. Mr. Francis Hird was in the chair, and gave a most interesting account of the early days of the school; his own connection with it dating from the year 1838, only four years after the school had been started. In that year he and the late Mr. Hancock were attracted from the Westminster School to teach anatomy and physiology respectively, and in their first year at Charing Cross, they had only one new entry. After referring to the numerous difficulties the infant school had to contend with, difficulties both from within and from without, Mr. Hird alluded to the satisfactory position which the school had now attained amongst the metropolitan teaching bodies, and to the palatial accommodation now provided for it compared with the subterranean establishment that formerly did duty, and he prophesied a great future for the institution.

The increase of the small-pox epidemic in London has not been so great, it appears, as was at one time thought probable. On Saturday last there were only 36 more cases under treatment in hospital than a fortnight previous. This result must be in great measure attributed to the admirable organisation of the Metropolitan Asylums Board, which we are glad to see is being constantly improved. Meanwhile, as a result of the friction which is inseparable from such work amongst uneducated persons, there is a tendency to find fault with the Board, which has shown itself in two regrettable incidents during the past week. In both cases, in the West Ham and Darenth complaints, Sir E. H. Currie has been able to show most conclusively that the complaints had not a shadow of foundation. Another point which has recently attracted attention, and which ought not to be lost sight of, has reference to the want of experience of small-pox amongst our students. A casual case or two in the hospital out-patient room, which are driven away as soon as discovered, form almost all the practical experience that a young practitioner has of the disease when he passes his examinations. It is no wonder, then, that many mild cases of small-pox go through their illness undiagnosed, until they have worked irreparable mischief. There is no doubt that senior students ought to be allowed and encouraged, if not enforced, to study the disease for a month in a small-pox hospital. And their teachers ought to impress upon them that, in addition to typhoid and syphilis, there is another disease which every young practitioner ought to be always suspecting, viz., variola.

It has been so much the fashion of late, and especially in a particular class of cases, to decry the value of opinions given by medical experts, that it is a relief to find that this opprobrium, perhaps not wholly undeserved, is not universal. That the conviction of Elizabeth Gibbons for the murder of her husband rested entirely on the medical evidence there cannot be the shadow of a doubt. Putting aside for the moment the position and number of the bullet wounds, there is absolutely nothing in the case which points to murder more than suicide. If there was no good motive for suicide, it is equally true that there was no motive for murder. The discrepancies in the different statements made by the accused would have had no weight if the medical evidence had been to the effect that the wounds were as consistent with suicide as with murder. Medico-legally the case presented no difficulty. The wound in the back, it may safely be said, could not have been intentionally self-inflicted; nor is it easy to understand how it could be possible to fall on a pistol so that it should go off, the bullet entering the left shoulder and passing straight through the chest from behind forwards; so that the hypothesis of accident may be as safely dismissed on the strength of this wound. Could it, then, have been received during a struggle in which the wife was endeavouring to wrest the pistol from a determined suicide? We must confess ourselves unable to believe it possible that such a wound should have been so received. There were several points in regard to the three other wounds which ill accorded with the theory of suicide, to say nothing of the extreme improbability of a man missing himself altogether. Without entertaining the exalted views of expert testimony that the Lord Chief Justice holds, we consider that in matters of life and death expert testimony is always entitled to something more than mere respect. And when, as in the present instance, experts explain their meaning by a cast showing the exact position of each wound, the decision becomes less a matter of scientific infcrence than of mere fact.

Another "miscarriage" of justice is the sole result of the eight days trial of Lotinga *v.* the Commercial Assurance Company. Indications of a difference of opinion between the jurymen might have been observed as early as the third day of the trial, differences which apparently were not removed by the subsequent evidence. Of the two points on which payment of the policy was disputed, viz., suicide and incorrect statements as to temperance in the proposals, the second was that on which the Company mainly relied. In regard to this there was a great deal of conflicting evidence. Much of that on the plaintiff's side, however, reminded us of the Irishman who, when charged with breaking a window by stone-throwing, offered to bring into Court fifty witnesses who did not see him throw the stone. It has been suggested by a daily contemporary that the fact that Lotinga had been passed as a good life by their own medical man was a strong argument against the contention of the Company. But there is a well known leading case in which a company successfully resisted a claim on the ground of intemperate habits, the insured having been accepted as a good life by their own medical man a fortnight after he had passed through an attack of delirium tremens. The medical evidence in the present case was of but little moment, and it is much to be regretted that there was no *post-*

mortem investigation, though it is quite possible that the evidence thus obtained would not have sufficed to enable the case to be settled out of Court. Insurance companies will perhaps, as a result of this action, be led to take a deeper interest in the financial condition of intending clients before turning a willing ear to their proposals.

Much excuse is to be made for every display of jealous susceptibility amongst the French, but we should have expected at least to find the French students of medicine free from the present besetting sin of their fellow countrymen. The French school of medicine has deservedly won a foremost place in the scientific world, and it still holds it, in spite of the preponderance of Germany in the political world. With this record of success on the part of their predecessors and present teachers, the French students ought not to have shown so much self-distrust as is implied in their foolish agitation for protection from foreign rivalry. There is no doubt that the proportion of foreign to native students inscribed at the Paris Faculty of Medicine is very considerable, being nearly 1 in 8. M. Béclard, the dean, in his report to the Conseil Académique, states that at the commencement of the school year (October 15th) the number of students inscribed at the Faculty was 3,994, or 550 more than last year, and out of this total there were 538 foreigners—127 Americans, 96 Russians, 61 Roumanians, 52 Spaniards, 45 Turks, 30 Brazilians, 26 Swiss, 25 Greeks, and 22 English. There is, however, we believe, no ground whatever for the assertion that foreign students are admitted to French degrees more easily than native students. If it were so, there would be some excuse for the cry for a fair field and no favour ; but when this misconception is removed, we may be sure that the cry will cease, and that the students will desist from their efforts to injure that reputation for friendliness and hospitality which their nation has earned so well. No doubt many Frenchmen are looking with a longing eye to practise amongst the rich English sojourners at the southern health resorts ; and if they could exclude English practitioners from French degrees, the whole of this lucrative business would fall into French hands. That, however, would be not only a serious injustice to the visitors, but it would no doubt drive some of them to pass their winters amongst less jealous nations. A course which led to such a result would, we are sure, commend itself neither to the selfish interests nor the generous instincts of the French nation.

It is generally admitted within the profession, we believe, that F.R.S.'s letter to the *Times*, on the case of excision of a brain tumour, was ill-advised, though well meant. Whatever happens to the individual patient, and we hear that his prospects of recovery are not satisfactory, the case is a striking instance of the application of facts learned, and only to be learned from vivisection, to the treatment of an otherwise incurable disease. The issue of the case, even if unsuccessful, will not detract from the force of F.R.S.'s logic ; but it will cause it to be impressed less cogently upon the lay mind, and for that reason we regret the premature publication of his letter. People outside the profession do not sufficiently realise the risks of capital operations ; they are apt to generalise too hastily, and from a single unsuccessful case to condemn an operation *in toto*. Within the profession, however, the dangers of interfering with the brain are so well known that many of us have hardly yet realised that there is such a thing as brain-surgery, except where accident or injury has been before us. Dr. Ferrier, we believe, lost something like 25 per cent. of his monkeys from meningeal inflammation, even when strict antiseptic precautions were employed, and it is not likely that the proportion of unsuccessful cases in human subjects will be very different. In operations for saving life, however, a mortality of 25 per cent. ought not to paralyse the surgeon, especially where there is every prospect of his being able to reduce the mortality as the conditions of success become more clearly formulated. We repeat that in the present case the physician's success in localising is entirely a different matter from the surgeon's success in removing, and the issue of the case does not detract one whit from the former. And, in spite of all that has been said, we maintain that neither would have been possible but for vivisection.

In the ablest article we have yet seen on the Teaching University, *Nature* has given such forcible support to the views repeatedly advanced in these columns —the necessity for amalgamating the London medical schools, and the advisability of appointing University lecturers on the higher branches of medical science—that we make no apology for giving the passages in full. On the first point, *Nature* is perhaps more hopeful than the difficulties of the case justify. "The altered character of medical education," it believes, "has made the continued isolation of the smaller medical schools a practical impossibility. Not merely has technical instruction gone beyond the capacity of the junior members of the medical staff who are usually told off for it, but the appliances required are too costly for all but the wealthier schools to provide efficiently, and the teachers are themselves wanted for the more minute and careful clinical instruction which is now everywhere demanded. The Medical Schools will therefore combine, perhaps, into some four great groups, for purposes of education and the organisation of laboratories. Once federation has begun, the foundation of a medical faculty for London is only a question of time. This will come about, probably, whatever the fate of the more general movement. But such a faculty would undoubtedly be found to be politically a body to whose just claims to direct medical education the University of London would find it impossible to lend a deaf ear." The second point is thus dealt with : "What is absolutely essential to add lustre and distinction to the work of a Metropolitan University is a body of University Professors who would take charge of the higher studies, which never can be properly cared for by bodies sedulously occupied with the very serious business of the higher education. What we hope, then, some day to see is the University of London equipped with a proper staff of regius professors, who themselves would be, at the least, an invaluable bond of union

between its own too abstract isolation and the living reality of the actual teaching bodies." Such higher teaching is no doubt needed. The only question is, who will be the first to provide it: the Royal Colleges who seem tending that way, or the examining Board in Burlington Gardens.

According to the Calcutta correspondent of the *Times*, the *Indian Gazette* of Saturday last contains a further addition to the literature of the cholera in the shape of a short paper by Dr. Klein, throwing fresh discredit on Dr. Koch's comma-bacillus theory. Dr. Klein examined three houses in Calcutta wherein a severe outbreak of cholera had occurred in November. He found that all three were supplied with good water. At some distance from these houses, and never used by their inhabitants, were three tanks full of dirty water, containing the comma-bacilli in large numbers. Various families lived in the huts round these tanks, and used their water for washing and drinking purposes; yet only one case of cholera had occurred among them in November. In the present state of the question, of course, every piece of fresh evidence is of importance; but in justice to Dr. Koch, we must say that the new discovery has little more weight than the fact that Dr. Klein is still alive after swallowing "a microbe." Dr. Koch's position, which we think has yet to be proved, is "no cholera without a comma-bacillus;" but we have never understood him to claim the converse, "no comma-bacillus without cholera." Even Dr. Koch does not deny—in fact, he makes much of—the predisposing causes of cholera.

We learn with pleasure that the Fellows of the Royal College of Physicians are about to demonstrate their appreciation of the long services of Sir Henry Pitman to the College. At a preliminary meeting last week it was resolved to invite the Fellows to co-operate for the purpose of presenting his portrait to the College. We are sure that all who know anything of Sir Henry Pitman and the value of his work will agree with us that the compliment is richly deserved.

We have not yet heard what has been done about the appointment of a medical officer of health for Calcutta, but from what the *Times* correspondent states, his services are very much required. The Calcutta municipality have shown a most short-sighted niggardliness in respect to their sanitary expenditure, with the result that, according to an able memorandum by Mr. Justice Cunningham, from seven to eight thousand persons die yearly in Calcutta and its suburbs from preventible causes. It would be an experiment of historical importance to try whether cholera, for instance, could not be banished from Calcutta by a strict system of sanitation. For the success of such an experiment no doubt the people themselves must be educated into habits of cleanliness, but the first step is to educate their representatives, if necessary by force.

At the meeting of the Pathological section of the Academy of Medicine in Ireland on the 5th inst., a long and varied programme was placed before the fellows. One of the most remarkable specimens exhibited during the evening was a calculus removed from an enlarged tonsil. Mr. Nixon who brought the case forward, did not state the chemical composition of the calculus, nor did he commit himself to any expression of opinion as to its causation. The patient appeared to be suffering simply from enlarged tonsils. He was a great smoker, and there was some tartar on his teeth. Another specimen in which much interest was exhibited consisted of the lungs of a lion who had been bred and born in the Zoological Gardens in Dublin, and died at the age of 12 years with symptoms of pneumonia. Both lungs showed extensive phthisical lesions, including a large cavity in the base of one. Microscopically, Dr. Abraham, who brought the specimen forward, had not been able to find any tubercles, but we did not gather whether any examination for bacilli had been made. The lion had not shown any symptoms of illness until a short time before its death, and had not suffered from cough. The father of this lion was stated to have died in a similar way.

For those who would make the title of "Dr." the common property of the profession, and for all who hunger for the cheapening of the M.D. degree—which is not necessarily the same thing as its greater accessibility—there is food for thought in the consideration of some proposals which have been soberly put forward in a country where the first of these conditions may be said to have been practically realised. The American student is reminded from time to time in a letter or report on the medical curriculum of this country, that "but few Englishmen proceed to the degree of M.D.;" but so general a condition of professional incompleteness is an idea which he fails to grasp. In America every medical man, with the rarest exceptions, is an "M.D.," and it takes him only two years to attain the right to that distinction. Only three colleges in that country now demand the qualifications which were held requisite to the study of medicine a hundred years ago. A necessary result is that the stamp has lost much of its original significance; it has become assimilated, as it were, to that of a token-coin, and although exceedingly common and everywhere of the same nominal value, it is felt to bear little or no evidence of its intrinsic worth, which may vary in different cases to almost any amount from an alloy of the minimum of true metal with a maximum of brass.

Starting with this universal basis of M.D., many strive to equip themselves for the requirements of actual practice by further courses of study in special branches of their profession. But the possession of deep and varied knowledge thus gained can only be inferred by the public by the results achieved by the practitioner in actual practice, and although this may be very solid and satisfactory ground to go upon, it is contended that such results are not immediate or generally self-evident; and that, until the patient has actually undergone a sort of trial by ordeal at the hands of his doctor, he is unable to derive any information as to the latter's acquirements in any particular

branch of his profession; at all events no such indication is now afforded by the generic title of M.D. Various means have been proposed in order to overcome this difficulty: the *Journal of the American Medical Association* has even gone so far as to declare it allowable for a physician to announce on his card, "practice limited to such and such diseases." It is satisfactory to learn that "this view has not been generally accepted," for its general recognition would probably result in the establishment of co-operative medical firms in which "our Dr. So-and-So" would undertake the gastric department, while Professor Some-one-else would attend solely to the pulmonary customers, and the sub-division of labour, running riot, would score the grooves of specialism so deeply that the practitioners of the various divisions of their art would, in the prosecution of their isolated labours, ere long sink out of each other's sight and consciousness.

Dentistry, however, is the thin end of the wedge which is to split this too huge and homogeneous mass of doctors of medicine into more useful and more recognisable groups. And the lines of cleavage are to be determined by the particular study or studies that the practitioner has undertaken, these being vouched for by an appanage of appropriate symbols. Those who object to specialism are reminded that the degree of M.D. is (in this case, was?) "in itself a special degree, and limits the service of those who bear it." No one objects to the degree of D.D.S,, or can deny that the value of dentistry has been vastly improved by the establishment of colleges, and the creation of the degree. "Why, then," it is argued, "should we not multiply these degrees, and so arrange the college courses that each might be conferred on those who prepare for it? Doctors of Ophthalmology, Otology, and Dermatology may seem strange to our ears, but they are as reasonable as the titles Bachelor of Science, of Mining, or of Music, now conferred by the universities." In other words, if "John Smith, M.D., D.D.S." is a legitimate method of showing that an individual has pursued a course of study in general medicine, as well as then in a special department, what is the objection to "John Smith, M.D.O." as indicating the same with regard to ophthalmology?

The prospect thus opened up is almost dazzling. The lavish creation of separate professional chairs, each engaged in teaching the requirements for its own degree; the time necessary for conferring the several distinctions upon the average "good man;" the niceties of distinguishing hoods and robes, and the rearrangement of orders of precedence; the sensation experienced while "taking out" degree after degree until one assumes the proportions of an alphabetical Crœsus, complete a picture which fairly takes away the breath. The proposition is one on which the publishers of medical directories and the makers of door-plates are certainly entitled to express an opinion. What the thickness of the one and the area of the other might amount to in different cases it is difficult to conjecture. In time, no doubt, every evil works its cure. The more ambitious Browns, Joneses, and Robinsons of the profession might not find nine square feet of brass plate, or a corresponding expanse of pasteboard too large a surface on which to display the abbreviated symbols of their professional acquirements; while the few choice spirits who had fathomed all depths of medical knowledge — as indicated by the total of degree-conferring chairs established—might be content more modestly to announce the fact somewhat thus, "James Bragge, M.D. (A—Ω.)" —"Words, words, words. Bring me my tablets!" Truly, another Hamlet, if he dipped into a medical directory, or found himself in the Harley Street of the future, might be pardoned for his madness.

The close of the year brings with it the somewhat depressing duty of surveying our ranks to see who have fallen out in the last twelve months. The missing ones of course must always reach a considerable number, but this year we are pleased to notice how few young faces we have lost, though amongst the elders several good men and true have passed away. Cæsar Hawkins, who resigned his surgeoncy at St. George's Hospital nearly a quarter of a century ago, after a long and useful career in its service, is quite out of the recollection of those of us who have any claim to have not yet passed middle life. Springing from a great surgical stock, he worthily maintained the good name made by his ancestors, and was deservedly respected by all who knew him. Though no longer following the active practice of his profession, he continued to maintain the deepest interest in it until within a short time of his death. Dr. Barclay, another St. George's man, had only lately retired, to enjoy it was hoped for many years the rest which his long public career as physician to his hospital and medical officer of health for Chelsea seemed to have entitled him. Like Mr. Hawkins, he did not write much, but there must be hundreds of men throughout the country who will not readily forget his kindness of heart and courteous manner. Within a few days of each other in the early part of the year there died two of the original members of the General Medical Council, viz., Dr. Alexander Wood and Dr. Allen Thomson. The former will be remembered in Edinburgh for his zeal in the service of the College of Physicians and the University. The latter, for a long time professor of anatomy in Glasgow, is known to every student as one of the editors of "Quain's Anatomy." Up to the day of his death he quietly exercised a considerable influence amongst the leaders of the profession. Two others more intimately associated with the Northern Athens have joined the great majority during the year, Dr. J. H. Balfour who, for the space of 40 years taught botany first in Glasgow, and afterwards for a much longer period in Edinburgh, and Sir Alexander Grant, the President and Vice-Chancellor. The latter had held office for about ten years, and had taken a most active part in the many changes which have been brought about in that time.

Two men almost at opposite extremes of life have passed away whose names are closely associated with

the subject of fever and the London Fever Hospital. Alexander Tweedie died in the spring in his 90th year, and Frederick Mahomed the other day at the age of 35. The death of the latter is so recent that his work will be in the memory of all; whilst of Dr. Tweedie it may fairly be said that he had outlived almost all who had any recollection of his active career. He was first appointed to the London Fever Hospital in 1822, and after holding office for 40 years, resigned 23 years ago. He will be remembered chiefly as the projector of the "Cyclopædia of Practical Medicine," and the editor of the "Library of Medicine." In Mr. Netten Radcliffe we have lost another man who had made his name in connection with epidemic disease, and who was one of the first to show us how successfully a strict process of inductive enquiry can be applied to the causation of outbreaks of infectious disease. We have kept the name of Sir Erasmus Wilson to the last, as that of one who, by his perhaps unparalleled munificence, has laid the medical profession under a debt of gratitude, which can never be wiped out except by making the best use of the vast sums with which he from time to time endeavoured to encourage good work in our midst.

Passing from our own losses to contemplate those of other nations, we find several world-renowned names on our list. In France, last spring, within a few weeks of each other, there died two of the most eminent chemists that that country has produced, Jean Baptiste Dumas and his quondam pupil Adolphe Wurtz. Both had been honoured by our Royal Society, and both had earned, and earned well, the Copley medal of that Society. It will be long before Wurtz's name is forgotten in connection with organic chemistry. Within the last few weeks the death of M. Fauvel has once more created a gap in the ranks of the French school. Though advanced in years, and in somewhat failing health, the Inspector of Public Health of Paris did not fail to appear at the Academy of Sciences at the time of the outbreak of cholera in Toulon, to defend with his wonted vigour his view as to the local nature of the epidemic. He died just too soon to realise the complete disproof of all his theories. Not Germany only, but the whole world, is the loser by the death of Julius Cohnheim, which occurred at the time of the International Congress. He has left his mark on pathology so firmly impressed, that so long as disease is studied his name must ever maintain a prominent and honourable place. In the death of Jäger, Vienna has lost one more of the eminent men who have helped to secure for its school the well-deserved reputation which it enjoys; Jäger's test-types have become a household word in every ophthalmic out-patient room. In Zeissl, too, Vienna has lost another specialist of the highest repute in his own line, and no one can consider his knowledge of syphilis thorough until he has made himself acquainted with his writings. Samuel D. Gross, the Nestor, as he has often been called, of American surgery, though last on our list, is second to none as regards the value or number of his contributions to the healing art. For nearly sixty years as pupil or teacher, he was engaged in the study of his profession. At the commencement of his career he made a great reputation for himself by his lectures on pathology, at Cincinnati, the first ever delivered on this subject in America, and subsequently for 42 years he taught surgery in Philadelphia. The profession in America are justly proud of having given birth to a man whom all Europe delighted to honour.

It is announced by the *Liverpool Press* that Mr. Henry Tate has determined to spend ten thousand pounds in building a hospital for that city where the poor may be treated homœopathically, *and in accordance with the most advanced principles of medical science.* Mr. Tate thinks that, by means of this hospital, a fair comparison may be made between the treatment there and the treatment in hospitals where the allopathic system is *still* adopted. The hospital is not to be endowed, as its founder believes each generation should support its own charities.

THE FRENCH BIRTH-RATE.

The thrift and prudent habits of the middle class and of the skilled artizans in France are generally acknowledged, and the extreme sub-division of landed property brought about by a law which not only precludes entails, but necessitates the equal division of a man's estate, whether real or personal, among his children has constantly been held up by a certain class of political economists as an almost ideal state of society, contrasting favourably with ours where the land is in the hands of a few wealthy owners, let on annual tenure or on lease to tenant farmers, and cultivated by day labourers. It is not for us to discuss the relative productiveness of the land under the systems of large or small holdings, but in France, at any rate, the whole question of the sub-division of property is inseparably connected with doctrines and practices the moral and physiological effects of which neither statesman, economist, nor physician can ignore. Happily for us, Malthus was a prophet without honour in his own country; but his teachings have permeated every stratum of society in France, and the national birth-rate has steadily declined during the last 75 years from 31 to 25, and the average number of children in a family is three, or just sufficient to maintain a stationary population. The Malthusian doctrine is that the food-producing power of the soil being limited, unrestricted propagation tends, after a certain point has been reached, to the increase of poverty. It is generally admitted, however, that Mr. Henry George, whatever may be thought of his general conclusions, has effectually disposed of this doctrine. Theoretically, the doctrine would be true of a purely agricultural community; but the soil is not the only source of wealth, and in these days food may generally be obtained from abroad at less than the cost of its production at home. There is, practically, no limit to manufacturing industries so long as foreign markets can be found, except those created by fiscal imposi-

tions based on erroneous theories of economy. So long as the manufactures of one country can be freely exchanged for food products of another, the densest industrious populations may be mutually self-supporting; and the evils commonly attributed to over-population are in great part due to the fact that in every community there will be a number of the idle, ignorant, improvident, and vicious, whose progeny tend to sink lower and lower in the social scale.

In France, however, it is not so much the actual state of the law that is responsible for the low birth-rate, but rather the limitation of families, by means of what is euphemistically termed "moral constraint," though it would be more correctly described as "mechanical restraint," a practice which thirty years ago was tacitly admitted to exist there as elsewhere, but which is now unblushingly recognised among all classes. After the war between France and Germany, Dr. Decaisne raised his protest against a practice repugnant to the best instincts of human nature, urging the different periods within which each nation would make good its losses and their probable relative strengths in the future, but the question has recently been taken up in real earnest by statists and physicians alike. M. Cheyssus shows that the difference between the present birth-rate and that at the commencement of the century represents an annual deficit of 250,000 infants, and in 20 years of 80,000 or 90,000 men capable of bearing arms; while, if the fecundity of the French equalled that of the Germans, it would furnish annually 150,000 conscripts more than now answer to the call. Well may M. Rochard denounce it as "a ruinous and fatal economy that squanders future for present profit, prefers fixed to human capital, and sacrifices the harvest to spare the sowing." M. Cheyssus shows that the population of France, which in the year 1700 equalled four-fifths of that of the great Powers, is now only one-tenth, and that at the present rate of increase from all causes the foreign element would in 50 years amount to one-fifth of the whole. The extremes of the birth-rate are seen in Brittany and Normandy, viz., 18 to 29 per 1,000 inhabitants in the latter, and 31 to 34 in the former. Between the years 1856 and 1881 the population of the former province increased by 230,000, and that of the latter decreased by 157,000, yet it was chiefly from Normandy that the French population of Canada sprang, a vigorous race which, numbering only 60,000 in 1763, now amounts to a million and a half, besides half a million who have crossed over into the States. The social and moral condition of the capital he depicts in the darkest colours. Its population is like that of too many large cities—maintained by immigration. The statistics of births and deaths appear at first sight satisfactory, but they are illusive. For every 1,000 married women in Paris there are but 129 children against 181 in the provinces; the infant death-rate is falsified by the exportation of nurse children to die in the country, so that in reality the deaths exceed the births. Illegitimate births amount to 28 per cent. of the total against 7·8 in the country as a whole, and their higher mortality is answerable for 10,000 deaths of children every year.

The annual increase of the population of France at the beginning of this century was, according to M. Rochard, 6·02 per 1,000; it is now 2·42, while that of Germany is 10 and of England 13. It is not the death-rate that is to blame, for that has fallen from 27·82 to 22·34, nor the marriage-rate, which in spite of social and legal hindrances equals that of this country; but the smallness of families, the numbers of which are everywhere, not only in entire provinces, but in the different quarters of the large towns, inversely as the material prosperity of the people. The explanation is to be found, according to the authorities we have quoted, so far as regards the peasant-proprietors and tradesmen, in the laws governing the succession to property. The anxious father sees in the prospect of any addition to his family the cutting up of the little farm, or the collapse of the business which he has struggled to acquire, but which in freer countries he would leave intact to one or two of his sons, bringing up the others to make their way in the world. Among the higher and wealthier classes who could easily provide for a normal family of five or six, other and less excusable motives come into play: the fears of selfish mothers that the care of children will debar them from indulgence in the pleasures of fashionable society, and that their figures will be spoilt by successive pregnancies. But the number of cases of involuntary sterility among the higher classes is rapidly increasing, a consequence, according to M. Rochard, of the unhealthy and unnatural conditions under which girls are brought up, leading to general feebleness of constitution, exalted nervous irritability, disturbance of the menstrual function before marriage, and abortion, metritis, and confirmed sterility after. Not less detrimental to the manhood of the nation is the education of boys, who grow up into precocious libertines, incapable of begetting a progeny healthy in mind or body.

CANNED FOODS.

Cases of illness and of death stated to be due to the consumption of canned food find their way into the papers from time to time, and elicit the usual series of more or less contradictory comments. Sometimes it is the viand itself, at others the method of preserving it; now the solder, now the composition used in lining the tins, and now mere carelessness and neglect of the contents after the receptacle has been opened which is declared to be the real cause of the mischief. In this country it is difficult to find data of the needfully accurate and exclusive character on which to found a satisfactory opinion. Amongst the cheaper brands in the market there is, no doubt, a proportion of absolutely unsound—that is putrescent—food offered to purchasers. But the total amount thus consumed in the course of a year is probably less than that of a similar kind which is made to assume the form of the seductive sausage in a month. The class, too, by whom these cheaper canned meats are mostly purchased are fairly shrewd in the matter of selection. It may be that two solder holes do not indicate that the manufacturer, having allowed the gases to escape from "blown" tins through a puncture made for that purpose, has checked further putrefactive changes by a process of reheating, and has then soldered the second hole up again. But a tin holding actually unsound contents

is generally bulged, whereas, when properly prepared, the head and bottom should be distinctly concave as seen from without; moreover, when indented by the pressure of the thumb, the depression will remain—unless the covering is again forced outwards by the imprisoned gases of decomposition. The very fact that the purchaser is unable to judge beforehand by the test of sight or taste or smell puts him more keenly on the alert against deception, and once bitten he is twice shy of being taken in again in the same manner; and finally, if the contents of a tin when opened are found to be undoubtedly "bad," it is very rarely indeed that they are used for food. The better class of provision dealers have a fairly regular demand for the goods which they supply; they know that it is to their interest to sell only brands of recognised reputation, and to keep on hand a stock as fresh as possible. They will exchange a tin the contents of which, when opened, are clearly below the recognised standard of quality, and they readily open the tin in the presence of the purchaser, or before sending it home to him. Under such circumstances a case of complaint is rarely met with. The conditions are obviously less favourable when canned provisions are obtained from the small general dealer, who seldom buys direct from the best manufacturers or importers, but recruits his shelves from such cheaper sources as the bankrupt or surplus stock of other houses, and stores his already aged purchases for an indefinite period amongst an olla podrida of paint, oil, soap, colours, and patent medicines, to meet a somewhat precarious and haphazard demand. And yet instances of mischief directly traceable to the consumption of such preserved meats are relatively so few and far between, as almost to preclude the idea of their being dependent upon the canning of decayed food, imperfect removal of air, or chemical defects in the soldering or in the lining of the receptacles employed, since all these are causes which, if operative at all, would necessarily affect a very large proportion of the particular batch or brand of tins, and would consequently entail similar results upon a correspondingly large number of consumers. As has been already hinted, when canned provisions form, as in this country, but a small and varying proportion of the total amount of food eaten by the individual, it becomes extremely difficult to eliminate all sources of error and uncertainty from any case in which harm is alleged to have accrued, and it is almost impossible to be able to appeal to anything in the nature of a satisfactory and unimpeachable "control experiment." Peculiar interest therefore attaches to evidence on this head derived from observations on a large population entirely supported for long periods together upon canned provisions only. Such experience is occasionally supplied by ships' companies and expeditionary forces placed under special circumstances; but it is then so complicated with exceptional conditions of climate, exposure, fatigue and privation, as to make the results not fairly comparable with those obtaining in the course of ordinary civilised life. A report lately published by a general officer of the United States Army deals very conclusively with this subject. It is stated that the army posts throughout the United States have now for nearly twenty years been supplied with canned articles—fruits, meats, vegetables, and preserves—and that during this period not a single case of poisoning from this source has been known or heard of. In many instances these posts are located in situations where climatic conditions render the cultivation of even garden produce an impossibility, so that for very many officers and soldiers and their families, canned foods form the only means of subsistence. These foods are not of any special brand, nor supplied by any particular firm. "A good article is bought from any packer who will furnish a proper quality," and considerable competition is thus excited amongst the various manufacturers. Nor are they obtained from any particular section of the country, but the purchasing area extends from Maine to Texas, and from the Atlantic to the Gulf. Hence the army provisions are drawn from the same sources that supply the community at large, and "civilians and the army consume the same canned articles and under the same circumstances." It is pointed out that soldiers often report themselves as sick to the surgeon on account of very trifling ailments, and that, as a body, they are under more watchful medical scrutiny than any other class of people; so that, were a case of poisoning fairly attributable to tinned foods ever to occur amongst them, even though not fatal or serious, it would almost inevitably come to the knowledge of the surgeon in charge of the post. Further, if any medical officer entertained the suspicion that canned food of any sort was the cause of a case, or of an epidemic of a sickness, there is every probability of his making a formal report to that effect to his superior, and through him to the entire medical profession in the army. On these two heads the medical director speaks most positively. He says, in answer to a direct question on the subject, that he has never in the course of a long experience met with a case of poisoning referable to the eating of canned goods, nor has any such case ever been reported to him by or through his military subordinates.

The only conclusions deducible from this array of apparent trustworthy evidence are that canned foods such as those supplied to the United States Army, and eaten as they are eaten by it, are not only harmless but good food; and that complaints as to the unwholesomeness of canned provisions, in so far as they are true, depend upon some oversight on the part of the consumer—a carelessness either in the purchase or in the subsequent treatment of the article. Amongst the civil population of America, where the production is stated to average five hundred million tins a year, the occurrence of illness alleged to be dependent on this cause is at least as common as in this country; we may, therefore, regard the two nations as on all fours in respect of the real reason, whatever this may be. But in comparing the relative positions of the United States Army posts and the general body of civilians on this question, there are one or two important points to be noticed. In the first place, the soldiers and their families are direct buyers and experienced consumers, familiar with good articles of the kind, keen to detect and uncompromising in rejecting those of inferior or doubtful quality.

Secondly, the character of the market, the regularity and certainty of the demand, the sharp competition, and the ruinous results which must certainly attend the exposure of inferior goods, ensure a supply of good and even quality. On the other hand, amongst civilians there is some sort of market for second-rate, and consequently less expensive, articles. Probably but little food in an actually unwholesome state is canned; but of this the major portion is "preserved" by the aid of condiments, &c., which may serve to suspend putrefactive changes, and to disguise an otherwise nauseous flavour, but which do not obviate the disastrous effects of its ingestion. At all events, the highly spiced articles—*e.g.*, the various "pastes" and potted meats—more commonly produce derangements of digestion than do the simpler roast and boiled. Lastly, and probably this is the most important point of all, a population living exclusively on canned meats, or nearly so, will consume the contents of each individual tin quickly, often at a single meal; so that it will be quite exceptional for the contents of a tin to remain exposed to the air for more than a very short time before being eaten. Whereas, when preserved food is used only occasionally in addition perhaps to other dishes, and is partaken of by but a few of those present at the table, the contents of a tin are likely to appear again and again at successive meals; and when at length some suspicion of taint attaches to them, the remains will still be deemed a useful addition to the soup kettle. Under such circumstances it is not remarkable if unpleasant results now and then ensue. Possibly the greater amount of illness connected with potted meats and pastes, as noted above, may be partly due to the fact that, owing to their being used in smaller quantities at a time, they remain for a longer period exposed to the action of the atmosphere before being entirely consumed. Most of the meat preserved in tins is in the course of that process exposed to a higher temperature, or is so exposed for a longer period than is usual with fresh meat cooked in the ordinary way. The result is an "over-cooked" condition of the viand shown by the peculiar disintegrated and sodden state of its tissue—points which are practically realised, by the way, in the preparation of animal infusions intended for the artificial cultivation of micro-organisms in the laboratory; and when exposed to the air it thus presents a soil specially favourable for the implantation of putrefactive germs, and for their rapid extension throughout its mass. In common parlance it "goes bad" more readily and more quickly than is the case with ordinary cooked butcher's meat subjected to similar exposure; and a slight degree of taint apparent in such canned food is a more serious matter than the same thing occurring in a recently cooked joint. This is a distinction probably not always insisted on by those members of the poorer classes of the community who are accustomed to eating scraps of meat bought cheaply late on Saturday night in the state described as being a little "off." Nor can it be imagined that prolonged storage is entirely without its effect. Although perfectly sound when canned, and hermetically sealed, the lapse of time is almost certainly attended with gradual molecular changes; and though, under the conditions supposed, these cannot be of a putrefactive nature, they are of a kind which favour the rapid onset and extension of decomposition when once the necessary exposure to the air has taken place.

If we may draw a lesson from these considerations, it would be one of mingled warning and congratulation. Even in those cases in which deleterious compounds, traceable to the solder or the lining of the tins, have been discovered on analysis, their quantity has been so minute as to acquit them of producing anything like a really serious effect. The evidence derived from communities almost or entirely dependent upon tinned foods is overwhelming in favour of their wholesomeness. And, putting the fashionable ptomaine aside for the present as at least unproven in this connection, we may conclude that when mischief does occur, it is the fault rather of the eater than of his meat. We believe that the public is itself mainly responsible for its scare, if scare there be, in this matter of tinned foods; and that, so far as is possible in human affairs, the evil results we hear of every now and again may always be avoided by exercising in the case of tinned articles of diet just so much care as should always be bestowed upon the purchase and the after treatment of ordinary butcher's meat.

REVIEWS AND NOTICES OF BOOKS.

ZIEGLER'S PATHOLOGICAL ANATOMY.[1]

Two volumes have been lying on our table for some time past which deserve to be spoken of in the highest terms. We refer to Dr. Donald Macalister's translation of Professor Ziegler's "Text-Book of Pathological Anatomy and Pathogenesis." Part I., dealing with general pathology, was published in 1883, and the volume containing Sections I. to VIII. of the second part appeared during the present year. The remaining sections of the work, dealing with the kidney, the lungs, and the nervous system, are already in hand, and will be issued as a third volume. In reality, however, the first part constitutes a complete work in itself, as it more or less completely covers the whole range of pathology. Malformations are dealt with in the first three chapters, and in these the student will find a more satisfactory account of them, short as it is, than is to be found in any work on pathology with which we are acquainted. It is mentioned that a malformation may originate in one of two ways: either the owner may have inherited a tendency to abnormal growth, or the normal embryo may in the course of development be affected by external disturbing influences; and, as regards the latter, it is said that "the earlier the injury the greater is usually its effect. The loss of a few cells in the earlier stages of growth may involve the absence of an entire organ or limb, while later on, after the general form is nearly complete, the same loss may not be noticeable at all."

Anomalies in the distribution of the blood and lymph are then dealt with—hyperæmia, œdema, dropsy, and hæmorrhage—these phenomena being, for the most part, explained in accordance with Cohnheim's classical

[1] "A Text-Book of Pathological Anatomy and Pathogenesis," by Ernest Ziegler, Professor of Pathological Anatomy in the University of Tübingen. Translated and Edited by Donald Macalister, M.A., M.B. London: Macmillan & Co.

researches. In the chapters on (*a*) the retrogressive and (*b*) progressive (or formative) disturbances of nutrition the reader is introduced to necrosis and degenerations of various kinds under the former heading, and to hypertrophy, hyperplasia and regeneration under the latter. The account given of amyloid degeneration is a particularly valuable one, though as the view adopted as to the kind of tissue primarily affected differs from that, perhaps, most generally maintained, it may be more open to criticism than other parts of the work. Ziegler holds that it is in the connective tissue of glandular organs that the disease at first appears, whereas other writers maintain that it is in the glandular cells themselves. Rindfleisch, for example, even in his lately published new work, "Die Elemente der Pathologie," which is now before us, speaks of such an infiltration of the cells; and, while Ziegler points to the fibrous textures of the blood vessels as being the first affected, Cornil and Ranvier state that it is the muscular element of their walls which undergoes the change. As regards the most suitable chemical test for the amyloid (or albuminoid, as some prefer) substance, we should have liked greater prominence given to the value of methylviolet (or some other of the aniline dyes), as in our hands it has proved to be far superior to iodine when the tissues are examined under the microscope. We should be inclined to say that a solution of iodine was the best for macroscopic and methylviolet for microscopic examination.

The description given of cell growth and cell multiplication is very clear, and the summary furnished of recent views as to the changes undergone by the nucleus is particularly deserving of commendation. The formation of giant cells is, in this connection, incidentally referred to as being the result of subdivision of the nucleus without a corresponding subdivision of the cell. We do not, however, see any reference to the possibility of giant cells being also produced by the amalgamation of two or more amæboid corpuscles; nor, by the way, is the caution thrown out that it occasionally happens that transverse sections of the altered walls of blood vessels are mistaken for giant cells.

The very difficult task of giving an intelligent account of the inflammatory process in a concise form is achieved with considerable success in this volume, and the view adopted, as regards its salient features, may be summed up in the author's own words as follows:—"The slowing of the blood current, the dilatation of the vessels, the peripheral disposition of white cells, the migration of these from capillaries and veins, and the migration of the red cells from the capillaries, are all of them referable to a molecular alteration in the vessel walls;" and that the causes of the alteration in the vessels—thermal and, especially, chemical—are the causes of inflammation. The discussion of inflammatory growths naturally follows, and these are described as "infective granulomata"—a definition which appears to us to be more open to objection than the term "specific inflammations" applied to them by Rindfleisch. These growths are tubercle, syphilis, leprosy, lupus, glanders, and actinomycosis. "All these affections," it is stated, "are due to the invasion of the body by a virus or poison derived from the outer world, or from the body of another individual." The space at our disposal does not admit of our closely examining the data on which this classification is based, nor to refer to the excellent description given of the microscopical characters of the several lesions, but we cannot turn over the pages without drawing attention to the excellence of the woodcuts illustrative of these granulomata. Indeed, the engravings, of which there are nearly two hundred in the portion of the work already published, are throughout unusually well executed, and add very materially to the value of the text.

Section VI. of the first volume is devoted to the elucidation of tumours, which are treated under two principal headings, tumours of connective tissue origin and tumours which are characterised also by increase of epithelial elements. A particularly lucid description is given of cutaneous cancer, or epithelioma. This is referred to as consisting essentially of cellular prolongations of the inter-papillary promontories of the Malpighian layer, penetrating and ramifying in the fibrous tissue of the corium. On the other hand, it is very properly pointed out that mere thickening of the subepidermic epithelial layer, or mere increase of the epithelial elements of glandular tissue, is not to be looked upon as a carcinoma; in the latter the new epithelial formation is not limited to the surfaces where its constituent elements are normally found, but actively invades the contiguous connective tissues.

A very carefully prepared summary of what is known of the animal and vegetable parasites which affect man brings the first volume to a close, and the chapters devoted to this subject will probably be very generally looked upon as forming one of the chief attractions of the entire work. The pages devoted to the schizomycetes present a very complete, and at the same time a condensed, account of all the organisms of this group of fungi which can be said to have even a remote claim to be considered as disease-causes. The rapid strides which have recently been made in this direction, and the publication of Zopf's excellent little work on cleft-fungi ("Die Spaltpilze") will, however, doubtless suggest some additions, omissions, and modifications, even though references to mycological literature are given in the text which were published as late as 1882. Still, taken altogether, the summary given in this volume of the parasites of man is, if not unequalled, certainly not surpassed in any text-book which we have seen, English or foreign. Indeed, the whole volume is remarkably free from any drawbacks due to carelessness of expression or of compilation, and we only note one trifling error which is not pointed out in the corrigenda prefaced to the second volume, viz., that the *Filaria sanguinis hominis* is called *F. Sanguinolenta* in its mature form, whereas, in reality, Lewis applied to the parental form also the designation which he had applied to the embryos. The *F. Sanguinolenta* is another parasite whose anatomy he investigated, and which he found was developed in the arterial walls of dogs.

We have devoted so much space to the first volume that we can barely do more than call attention in a general way to the contents of the second. It opens with an account of the pathological changes which the heart, the blood, and its vessels may undergo, the paragraphs devoted to endocarditis and arteritis being particularly worthy of careful study. This is followed by a description of the morbid changes in the lymphatics, the spleen, and the lymphatic glands which, however, do not call for special remark here, nor do the succeeding chapters dealing with the serous membranes except to say that, like the rest of the work, they are well written. Those of our readers who are specially interested in the study of skin diseases will find an exceptionally valuable account given in this book of the minute changes which disease gives rise to in the epidermis, the corium, and the subcutaneous tissue, the researches of Kaposi in particular being largely drawn upon. The remainder of the volume is devoted to the pathology of mucous membranes, the liver, and the pancreas, and it is with much regret that we are compelled by want of space not to be able to give an analysis of the contents of these chapters. Enough, however, has been said to show how highly we appreciate the author's labours. The work not only testifies to his ability as a teacher, but also gives evidence that he is an accomplished practical patholo-

gist. Dr. Ziegler is, moreover, particularly fortunate in having had his work brought out in its English dress by one so well qualified for the duty as Dr. Macalister, and the remark which the latter makes in his preface as translator and editor that the portions of the text in small print had had his special care is but a very modest claim on our recognition for what must have been a very onerous portion of his labours, as it is very evident that the English edition bristles with information from beginning to end which is not to be found in the original.

Lectures on Mental Disease; by W. H. O. SANKEY, M.D., F.R.C.P., &c. Second edition, pp. 454. London: H. K. Lewis, 1884.—Nothing is more characteristic of the prevailing tenour of thought in modern medicine, and especially in English medicine, than fear and dislike of hypothesis. We must have facts, and we must not go beyond facts. It is a little strange that the nation to which the world owes its greatest, its most comprehensive, its most daring theories should be the one which, in medicine at least, is most timorous of leaving the firm shore of fact and embarking on even the smallest stretch of hypothesis. When we do find an author who dares to promulgate opinions not only opposed to prevailing opinions but of a somewhat comprehensive nature and of a character not admitting of direct support from fact, they come upon us like a fresh sea breeze to a dweller in a town, and such is the impression derived from Dr. Sankey's book. It is a departure from the recognised and received modes of treating the subject, it is conducted on different lines, and leads to different conclusions, and the several positions are sustained, with no great dialectical skill it is true, but with a directness and an ability which should induce every alienist who looks beyond the barren routine of his daily duty to study them with care, and which will compel future writers on the subject to give them serious attention. The book must arouse opposition, it ought to provoke controversy, and to say this is to say much in its favour. Dr. Sankey devotes the first part of his book to an exposition of mental science—of the science of the normal mind, a topic strangely disregarded in most treatises on insanity. It is in this department of medicine only that it is commonly considered proper to study the morbid, without a preliminary study of the normal, and the result has hitherto not been particularly successful. Dr. Sankey not only recognises the necessity of giving some account of the normal mind before entering on the consideration of insanity, which, as times go, is an unusually enlightened view, but he makes a singularly happy division of the former subject into mental products and mental processes. The principle of evolution is accepted as the basis of the doctrines taught, and Herbert Spencer and even Hughlings-Jackson are quoted in support, but we cannot say that Dr. Sankey always correctly apprehends these authors, or that he is very successful in avoiding the obscurity with which the subject is so much beset. The framework of the book—the main principles upon which its design is laid down—appear to us excellent, but the working out of the design in detail is often faulty and inefficient. Although Dr. Sankey quotes verbatim the explicit terms in which the current doctrine of the absolute diversity of mental states and nervous processes is laid down by Dr. Hughlings-Jackson, yet he falls repeatedly into the common error of confounding the two, and speaks of sensation producing motion. Explaining, as he apprehends it, Herbert Spencer's doctrine of the nature of the nerve current, Dr. Sankey states that "the main objection to Mr. Spencer's theory is, that it is a simple chemical change, *and chemical changes are electrical*, and the phenomena of the neural current do not accord with the electrical theory according to general consent of authorities." It is rather hard on Mr. Spencer to father on him, through the remarkable assumption contained in the passage that we have italicised, a doctrine which he not only does not hold, which he not only disowns and repudiates, but against which he brings forward a whole battery of arguments. We shall expect to hear next, that Mr. Spencer is the chief opponent of the doctrine of evolution. Other doctrines of Mr. Spencer's which have for years become commonplaces of neurology are attributed to Dr. Wiglesworth, who argued ably from them in a paper read last year. Nowhere does Dr. Sankey more thoroughly and on the whole more justifiably and successfully break away from the traditions of his subject than in his classification of insanity. The classification of mental disorders has been a quagmire into which nearly every writer on the subject has sunk and struggled and struggled and sunk. Dr. Sankey leaps over it with one bound. His system, if not quite perfect, is at least simple, intelligible and fairly consistent, which is more than can be said of any other as yet proposed, and his advocacy of it is vigorous, and against all previous classifications convincing. The division of all cases of idiopathic insanity into the two species of ordinary insanity and general paralysis is at first sight, it is true, somewhat like that of the amateur of music, who divided all music into two tunes, one of which was "God save the Queen" and the other was not; but upon consideration it becomes manifest that there is no logical halting place between the collection of all cases of idiopathic insanity, minus general paralysis, into one group, and a division which makes of every individual case a separate species. Dr. Sankey is logical; he rejects the latter alternative. Compromise he regards as impracticable, and thus his own division is the only one which is to him possible. Throughout the work, we find that so long as the author is arguing a question of principle he always compels attention and often carries conviction, but on points of detail his remarks appear hurried, and sometimes erroneous, and the literary style is slovenly and often obscure. Thus, his discussions of the pathology of "ordinary insanity" and general paresis, are bold, well argued and able. His remarks on masturbation are excellent. The subject of periodicity and the similarity existing between drunkenness and general paralysis are very well treated, but the remarks on prognosis are not in our opinion trustworthy. The subject of moral insanity merits a more detailed discussion. To say, as on p. 138, that the urine is abnormal, does not convey much information; and the following extract appears to contain a vicious circle—*a circulus in probando*:—"A thing is remembered only when a previous impression is resuscitated by a new or present impression. The tendency of a present impression to recall an old impression depends upon what is called the *association of ideas*. . . . The *association of ideas* depends of course on the faculty of memory." (p. 14). A similar passage occurs on p. 139, where we are told that patients "have the propensity, which is the symptom, and the bodily symptoms may perhaps be greatly accounted for by the propensity." The remarks as to treatment present nothing novel, but they are sound and sensible. It is interesting to note that Dr. Sankey is among the increasing number of those who regard opium and morphia as useless in melancholia. Upon the whole, the book is an honest and useful one. It is not the book that would be recommended to one entering on the study of the subject, but to those who are well grounded in current notions on insanity it should be invaluable; for it should compel them to take up their old beliefs one by one and examine thoroughly the grounds upon which they rest, and few will emerge from the process in quite the same condition as that in which they entered on it.

ABSTRACTS AND EXTRACTS.

OBSTETRICS.

THE INFLUENCE OF AGE UPON CHILDBEARING.—A recent number (Band x. Heft 1) of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains an interesting article on the above subject by Dr. Ludwig Kleinwächter. The author's immediate object in undertaking the investigation of which he here gives the results, was to ascertain whether the common belief, that first labours occurring late in life are attended with special danger, is well founded. This belief, although general, is not universal; it has been

by some maintained that labour is easier in primiparæ who are elderly than in those who are young. Hence, the greater necessity for thorough investigation of the point. There is one general reason why a slightly greater proportion of difficult cases should occur in those who have their first children late, viz., that women who are dwarfed, deformed, weakly, or suffering from chronic disease, may be expected to be less attractive to the opposite sex, therefore to marry later and bear children later, than their better-shaped and healthier sisters. But the assertion of even such greater mortality as can be thus accounted for has to be proved. Dr. Kleinwächter has set himself to fill this hiatus in our knowledge, and his researches have brought out some facts of much interest. They are based upon 920 women pregnant for the first time, 878 of whom were also observed during labour. The ages of these patients ranged from 16 to 41. Arranging them for the purpose of his enquiry, our author divides them into three groups, viz.: (1) those aged from 16 to 19, of whom he has details of 111 with 108 labours; (2) those from 20 to 29, comprising 694 patients with 662 labours; and lastly (3) those from 30 to 41, numbering 115 with 108 labours. Dr. Kleinwächter compares the different sets of facts relating to each of these groups. He gives the particulars relating to each different year of age, but for the sake of brevity we shall only here quote the generalizations referring to the larger groups. The first point on which information is given is the age of first menstruation. These facts appear. In those pregnant first between 16 to 19, the average age of first menstruation was 13·73 years; in those commencing fertility between 20 and 19, it was 15·41 years; and in those in whom pregnancy did not occur till between 30 and 41, it was 15·81 years. The conclusion follows that the slowness of development which causes menstruation to be late in its appearance causes also delay in the more important function of pregnancy. That lateness of childbearing is often dependent upon imperfect development, preventing the due performance of the menstrual function, is supported by another set of figures, viz., those showing the frequency of menstrual irregularities in the different groups. Of those pregnant first at from 16 to 19 years of age, in 22·36 menstruation was irregular; this irregularity was present in 24·56 of those beginning to bear children at from 20 to 29; and in 30·76 per cent. of those in whom parity did not occur till the age of 30 to 41. Dr. Kleinwächter brings more facts pointing in the same direction. Of those bearing children before 20, only 1 per cent., but of those in whom pregnancy did not occur till after 29, 5·20 per cent., had suffered from diseases which commonly delay the establishment of menstruation, viz., epilepsy, imbecility, infantile paralysis, cardiac disease, uterus bicornis, deaf muteness, "psychosis" and "psychopathy," uterine fibroids. Beside these disorders, there are others which, although not specially affecting the genital functions in the female, yet may do so indirectly, by rendering proper coition less likely. Among these, our author mentions dislocation of the thigh, tumour of labium, sarcoma of tibia, tumour of upper part of thigh, chronic eczema of leg, and ulcer of foot, anchylosis of knee, prolapsus of vagina, ascites. These occurred with a frequency of ·90 per cent. in those of 16 to 19, 1·00 per cent. in those of 20 to 29, and 2·60 per cent. in those aged 39 to 41. Putting both classes of ailments together, we have ·92 per cent. in the young (16 to 19), 2·01 in the intermediate ages (20 to 29), and 7·82 in the old (30 to 41). The conclusion follows that lateness of conception is sometimes the result of congenital or acquired disease. Figures which support this conclusion have also been published by Schwing and by Cohnstein. Turning now from the causes of late primiparity, Dr. Kleinwächter considers the influence of age upon the course of pregnancy. First, taking disease broadly. In those under 20, pregnancy was complicated by morbid conditions in 13·81 per cent., in those of intermediate age in 18·15 per cent., and in those over 29 in 39·13 per cent. Late pregnancy is therefore attended with especial risk; next in point of danger is too early pregnancy; while the safest age is the middle period. The figures do not hold good equally when we consider diseases specially dependent upon pregnancy, and when we look at those accidentally coincident with it. The liability to the latter steadily increases with age, as shown in the following figures: 4·50 per cent. in the young, 5·61 per cent. in the middle period, 13·91 per cent. in the older. Taking the maladies special to pregnancy, we find the law mentioned above more clearly illustrated. In the young primiparæ we have 15·31 per cent. of such diseases; in those of intermediate age only 12·53 per cent.; in the elderly 26·95 per cent. Our author gives figures showing the frequency of ante-partum hœmorrhage, and of excess of liquor amnii; but with regard to both these conditions, the numbers seem to us too small to warrant any confident deduction from them. We now come to the course of labour. The duration of labour is greatest in the elderly primipara; next in length comes that of the young; and the shortest is that of those aged from 20 to 29. Dr. Kleinwächter takes 18¼ hours as the average duration of normal labour. This was exceeded among those under 20 in 41·5 per cent.; among those aged 20 to 29 in 15·38 per cent; and among those over 29 in 50 per cent. Weak labour is least often met with in those aged 20 to 29, most often in the elderly. It occurred in 6·03 per cent. of those under 20, in 4·80 per cent. of those from 20 to 29, in 8·92 per cent. of those over 29. As might be expected from the foregoing, the forceps was found least often required in those bearing their first child at the most favourable age, viz., 20 to 29 (these operations among them numbering 3·66 per cent.), more often in those under 20 (4·76 per cent.), and most often in those over the age of 29 (5·36 per cent.). The foregoing figures indicate the frequency with which anomalies in the parturient process were met with. Taking all labours together, it appears that the duration of labour increases with age. In those under 20 it averaged 16 hours 35 minutes; between 20 and 29, 17 hours 4 minutes; over 29, 20 hours 26 minutes. This increase with age in the duration of labour seems due to prolongation of the first stage of labour in the elderly. The second stage shows scarcely any difference at different ages, and the third stage none at all. The figures supporting this proposition are too lengthy for us to quote. Dr. Kleinwächter thinks that the greater length of the first stage of labour in the elderly depends upon the soft parts of such patients yielding and dilating less readily. The mortality after forceps delivery, according to our author, steadily rises with age. The figures upon this point are based only on 36 cases, a rather narrow foundation for so broad a generalisation. The older the primipara, the more likely is rupture of the perinæum to occur. Dr. Kleinwächter in this statement is able to adduce figures given by Liebmann, Fasbender, and Steinmann, which all confirm this conclusion. The older the patient, the greater the liability of post partum hœmorrhage. With increase of age, increases also the number of cases of renal disease, and of œdema without evidence of renal disease. This is very marked. Under 20, our author found 1·85 per cent. of œdema with renal disease, 6·30 per cent. of œdema without. Between 20 and 29, 2·26 per cent. of œdema with renal disease, 7·06 per cent. without; over 29, 10·18 per cent. with, and 10·43 per cent. without. Inflammation of the mamma, on the contrary, is more apt to occur in the young. Of those under 20, 2·77 per cent, were thus affected, of those aged from 20 to 23, 1·81 per cent.; and of those over 29, ·92 per cent. Deficiency in the supply of milk, preventing suckling, was observed in an inverse ratio of frequency; in 5·55 of those under 20, 11·47 per cent. of those between 19 and 31, and in 25 per cent. of those over 30. The law with regard to age which applied to puerperal fever holds good also of puerperal mania, of the percentage of puerperal deaths and diseases taken together, and of premature labour. We group the figures together so that they can be seen at a glance:—

Age.	Puerperal Fever.	Puerperal Mania.	Puerperal Mortality.*	Puerperal Morbidity.	Premature Delivery.
16—19	13·88	·92	3·70	20·37	28·71
20—29	10·87	·48	3·60	17·97	27·50
30—41	16·66	1·85	6·48	23·14	34·26

* The high mortality will strike our readers; but to comment on this would be foreign to the present subject.

It will be seen that in all these different ways the risk of the elderly primipara is greater than that of the young, and that of the very young primipara greater than that of the woman who begins to bear children at the most suitable age, viz., the third decade of life. Abnormal presentations in the cases used by Dr. Kleinwächter increased in frequency with age. Here, however, the figures are too small to be in our judgment conclusive. He found no connection between age and pelvic contraction. He gives the singular generalisation as to the sex of the child: that in those of mothers between 20 and 21 females are in excess, males at other ages. This does not seem to us supported by enough evidence. He gives also the curious fact, that the umbilical cord falls off sooner in the children of the older mothers than in those of the younger. In some other points the author has been anticipated by Heeker and by Matthews Duncan. He finds that the production of twins and of monsters, and the mortality among the infants, rises with the advancing age of primiparity.

Rapid Dilatation of the Uterine Canal.—In a paper read at the Obstetrical Society of Philadelphia (*Philadelphia Medical News*, October 18), Dr. Goodell observed that for many years he had been in the habit of enlarging or straightening the uterine canal, according to the requirements of the case, either by tents or by Sims's operation. "Having had several serious warnings in the shape of inflammations following these operations, I began to perform them with fear and trembling. Yet nothing very untoward happened until 1878, when two grievous mishaps befel me." These arose in the cases of two young ladies. One of these suffered from bad dysmenorrhœa with such marked stenosis and angularity of the canal, that Sims's operation was performed without hesitation, but with the effect of killing the patient through septicæmia. In the other case, the canal was dilated by means of tents for exhaustive menorrhagia, many vegetations also being removed from the endometrium by means of the curette. Violent peritonitis followed which proved fatal. Alarmed at these results, Dr. Goodell substituted rapid dilatation, which Ellinger and others had proposed, and so gratified has he been with his success that he has abandoned Sims's operation, and has employed tents very seldom. Referring to the article itself for a minute description of the dilators employed and the mode of using them, we may observe that the utility of the procedure is not confined to dysmenorrhœa, as it may also be resorted to for the safe performance of irrigation of the uterus or making applications within its cavity, as also in exploration of the womb with the finger, when polypus or other growth may be suspected as the cause of the menorrhagia. Not counting cases in which dilatation was practised without ether, or for mere digital examination or the removal of growths, Dr. Goodell believes that of cases of dilatation under ether he must have had over 300, the employment of an anæsthetic implying full dilatation—cases in which serious injury, if ever, would be most likely to be sustained. Yet not a death, nor a case of severe inflammation has occurred, while the results have been far more satisfactory than from the cutting operation. Of 168 cases of dysmenorrhœa, 80 occurred in unmarried, and 88 (almost always accompanied by sterility) in the married. Of the 80 unmarried, 18 were unheard of after the operation, leaving 62 from which any data could be obtained. Of these 38 were cured, 17 more or less improved (most of these greatly so), and 7 were not improved at all, the ovaries being so diseased as to render the dysmenorrhœa incurable except by their removal. Of the 88 married women, 53 were heard from, 39 having been cured, 10 improved and 4 unimproved. "When compared with the cutting operation this one looks like rough usage, yet the woman rarely needs more than two or three suppositories, and complains merely of soreness for one or two days. To forestall any tendency to metritis, she is kept in bed until all tenderness has disappeared. Pain is met by rectal suppositories of opium, and by large poultices laid over the abdomen; but it has always been readily controlled, and has not given any alarm."

Spondylolisthesis.—In the *Archiv für Gynäkologie* (Band xxii., Heft 3), Dr. Franz Ludwig Neugebauer, of Warsaw, brings forward additional evidence in favour of his views on the subject of spondylolisthesis, in the shape of three cases observed at Freiburg, two at Strasburg, and two at Berlin. He examines also a case diagnosed by the late Professor Depaul as one of deformity due to congenital dislocation of both hips; and gives reasons for regarding it as a case of spondylolisthesis. He gives some very clear and instructive diagrams of the contour of the body in spondylolisthesis, and in congenital dislocation of the hips, as compared with that of health. He formulates his views on the origin of spondylolisthesis as follows. It may result (1) from a congenital, unilateral or bilateral, defect of ossification in the fifth lumbar vertebra, especially in its inter-articular portion; (2) primarily from a fracture (*a*) of the sacral articular processes, when the posterior arch of the fifth lumbar vertebra is displaced forwards, and its inferior articulations shew a corresponding degree of elongation by traction in the sagittal direction; (*b*) of the arch of the fifth lumbar vertebra in its inter-articular portion, when the posterior part of the arch of that vertebra is not displaced forwards, but remains in its normal position, whether synostosis of the lumbo-sacral articulations has taken place or not.

Uncontrollable Vomiting of Pregnancy.—Dr. Fifield related a case which he had met with to the Obstetrical Society of Boston (*Boston Medical Journal*, October 23). The patient was about three months pregnant, and for two weeks her attendants had tried in vain to relieve an obstinate vomiting, which was rapidly reducing her strength. As all the usual remedies had been tried in vain, and rectal enemata were not well borne, and the patient was rapidly sinking, it was determined to induce labour. Dr. Fifield therefore introduced a bougie within the uterus and waited twenty-four hours, but neither this nor another, passed in to the depth of several inches, produced any effect. A sound was now passed in, and moved freely about, no pain being caused by it, nor any blood following its removal. Next day, however, the fœtus with unbroken membranes was discharged. The change induced in the patient was immediate and marvellous, and by the end of the week she was up and dressed. In passing the sound, Dr. Fifield observed that the uterus was much anteverted, and he alluded to the fact that in fœtuses and young infants the uterus is anteflexed, and bent to the left. Dr. Blake regretted that there ever should be need to resort to the premature induction of labour for the relief of vomiting, and he had always found some other treatment suffice. He thought that counter-irritation was often efficient, with regulation of diet or rectal alimentation. If patients with gastric ulcer or intestinal obstruction can be tided over with rectal alimentation, why not pregnant women?

Pain as a Symptom of Salpyngitis.—In the *New York Medical Journal* for July 12th, a case of ovarian disease is described, in which the patient gave a history of pelvic discomfort, with pain constantly referred to the left ovarian region. On examination a tumour as large as an orange was found in the region of the right broad ligament, and displacing the uterus, while nothing abnormal was detected on the left, or painful, side. Laparotomy was performed, mainly on account of the excessive and constant pain, when the tumour was found to be a dermoid cyst, free, and consequently easily removable; the Fallopian tube on that side was entirely free from disease, and its fimbriæ were normally distended. The left Fallopian tube, however, was found to be dilated; its fimbriated extremity was firmly adherent to the posterior surface of the ovary, which was in a condition of cirrhosis. Both ovaries and both tubes were therefore removed, although the pain which had been suffered was doubtless due to the (unsuspected) diseased condition of the left tube only.

Suicide of a Liverpool Surgeon.—Dr. Graham, a well-known Liverpool medical man, and one of the most successful surgical operators in the North of England, committed suicide on Saturday morning at his residence by cutting his throat in a terrible manner. Some time ago he had to give up practice for a time in consequence of his mind becoming affected, but he had apparently quite recovered, and had resumed practice.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 3RD, 1884.

H. GERVIS, M.D., F.R.C.P., President, in the Chair.

The following specimens were shown:—

1. Fibrous tumour of uterus removed by operation—Dr. WALTER, Manchester.
2. Two-headed fœtus—Dr. HORROCKS.
3. Fibrous polypus—Dr. GODSON.
4. Ruptured uterus—Dr. CHAMPNEYS.

Uncontrollable Vomiting in Pregnancy.

The DISCUSSION on Dr. Graily Hewitt's paper on Uncontrollable Vomiting in Pregnancy, adjourned from the November meeting, was resumed. Drs. Champneys and Galabin spoke at the November meeting, but the whole discussion is given below.

Dr. CHAMPNEYS observed that many of Dr. Hewitt's anticipations of probable objections amounted to a declaration that in spite of them all he believed his own theory. Anteflexion or anteversion is found in 80 per cent. of all cases of early pregnancy. No attempt has been made to show the difference as regards vomiting between those whose uteri are "displaced," and the small minority in which they are not displaced. In the puerperal state anteversion and anteflexion are at least as common. Here is a large uterus full of blood, anteflexed. But where is the vomiting? Again, it has been assumed that anteflexion is a position of constraint. Here are these women lying on their backs and yet the uterus persistently anteflexed. It has never been proved that flexion as flexion ever disturbs the circulation in the uterus. If, however, we look for a typical condition of flexion with pressure, we find it in the case of the retroverted gravid uterus. Here we have acute flexion with incarceration, either of which on Dr. Hewitt's theory is sufficient to cause vomiting. But where is the vomiting? Flexions have been proved to be very common in women whether well or ill, and association without severe sifting proves nothing. The sudden cessation of vomiting recorded in some of the cases is a well-known character of this vomiting, and is a precarious foundation for theories. The cases themselves require more details as to other possible causes of vomiting, such as albuminuria, jaundice, constipation, &c.

Dr. GALABIN said that anteflexion was so common in early pregnancy that it was one of its best diagnostic signs. If it were the cause of vomiting, a pessary should cure the vomiting; not one of the cases related was cured by this means. In backward displacement relief followed reposition oftener in Dr. Hewitt's cases. Excessive vomiting was plainly only an extreme degree of the common vomiting of pregnancy. Tension must be an important element, witness the cessation of vomiting if the ovum dies, and the excessive vomiting associated with hydatid mole. When the nervous system is hyperæsthetic, some morbid condition of the uterus, such as inflammation, induration, and grave displacement such as retroversion, especially with incarceration, might produce excessive vomiting. Dr. Hewitt's theory did not explain the relief which he had several times seen follow dilatation of the cervix. The *modus operandi* of this procedure was hard to explain, but it might be connected with overstretching the nerves or rupturing some of the fibres about the os interum, which is a special seat of reflex action in labour. Incarceration of an anteverted or anteflexed uterus in early pregnancy was to him inconceivable apart from adhesions.

Dr. BARNES said that excessive vomiting in pregnancy was an instance of a physiological process passing the healthy boundary. The physiological basis is vascular and nervous tension peculiar to pregnancy. Vomiting is a safety valve for nervous energy, and a safeguard against nervous seizures such as eclampsia. Vomiting is a sort of physiological convulsion, and so is labour itself. After delivery the tension ceases and the liability to vomiting also. The exciting cause of the vomiting of pregnancy is usually in the uterus itself. The fact of the vomiting occurring as soon as the patient gets up, may be partly explained by increased flexion, partly also by Bretonneau's theory of rapid distension of the uterine fibres under increased hydraulic pressure of the blood from the erect position, when the nervous centres are most excitable after rest, and the inhibitory force weakest from fasting. Since flexion remains for the rest of the day, however, flexion is not sufficient. Vomiting later in pregnancy, which is the severer from, is kept up by starvation when once started, degraded blood increases the nervous irritability, and a vicious circle is formed. Albuminuria is a further evidence of toxæmia, and hiccough is a form of convulsion. The vomiting seen in obstructive dysmenorrhœa is analogous. The solution is not to be sought in any one factor, but nervous and vascular tension underlies the whole question.

Dr. BRAXTON HICKS said the term "severe" was too vague, and he had never seen uncontrollable vomiting. The vomiting of pregnancy was so variable that severe vomiting could not be considered apart from the vomiting which might be called natural. When the pulse rose, emaciation commenced, and the tongue became red and the epigastrium tender, the case became urgent. He had never seen a case which had not yielded to remedies. With regard to the cause of vomiting he agreed in many points with the previous speaker. Since Dr. Graily Hewitt's first paper he had examined all cases carefully, and he had never found any displacement or other local disturbance requiring mechanical treatment, nor had he ever failed to carry his patient safely to full time by the persistent use of remedies, especially opiates, given perseveringly until some portion was retained by the stomach, and the system was calmed. The nerves of the mucous membrane of the stomach became irritated, and after a time formed a centre of disturbance, after the manner seen in other parts. By the administration of opiates by the mouth, these nerve ends were soothed and consequent benefit ensued.

Dr. MATTHEWS DUNCAN knew no controllable vomiting of pregnancy. Medicines might do some good, and perhaps in some cases stop it. This he did not deny; but every one in practice knew that the vomiting was practically uncontrollable. He placed most reliance on atropia in the common variety of vomiting when excessive. The vomiting of pregnancy was of course stopped by emptying the uterus —that was not to control it, nor really to stop it: that was to stop the pregnancy. He recognised, meantime, only two kinds of vomiting of pregnancy—the ordinary, natural, physiological; and the pernicious uncontrollable, very dangerous. The former generally ceased about mid-pregnancy, but it might go on longer, be excessive, and induce emaciation. He was not quite certain that it ever ended fatally. The pernicious kind had been the subject of several recent memoirs, and was often fatal, rapidly fatal; it might begin at any period of pregnancy, and run its course slowly or more quickly; and till our new knowledge of this kind was used in the investigation of all cases, he would not admit that a fatal result came from the ordinary or physiological kind, even though very severe. The pernicious kind was no doubt induced by pregnancy, and in it we had degeneration of organs, granular, fatty, or inflammatory. Cases often presented all the characters of icterus gravis, but they varied much from the apparently simple cases of fatty degeneration of Heeker, Grainger Stewart and others, to cases with symptoms more or less like those of Bright's disease or of yellow atrophy of the liver. They presented great prostration, often bleedings, often albuminuria more or less considerable, also often bile in the urine; sugar even had been observed. Such cases were not always fatal. He was disposed to regard this pernicious vomiting as certainly sometimes passing off after delivery, or perhaps even before it. It often led to the death of the fœtus. He knew of no remedy but emptying the uterus.

Dr. PLAYFAIR said that we are all apt to ride our hobbies too hard, but, in this respect, Dr. Hewitt carried off

the palm with ease. Indeed, with perfect good faith he fitted his facts to suit his theory. In many of Horwitz's cases there were conditions which might quite account for the vomiting, such as perimetric adhesion, tumour, parenchymatous metritis and other inflammatory conditions. All these Dr. Hewitt calmly puts aside as beside the question, and points to a slight deviation as the cause of the vomiting. The plainest of all facts about the vomiting of pregnancy is that it is a neurosis of an intense degree, and only one of many neuroses accompanying pregnancy, and also associated with many forms of pelvic disease, such as inflammation and dysmenorrhœa. All these differ only in degree from the vomiting of pregnancy. It was observed long ago by Dr. Bedford, of New York, that when there was no vomiting in pregnancy, some other and often more distressing form of neurosis, such as fainting and palpitation, was apt to be present. He therefore used actually to prescribe ipecacuanha as an emetic, and Dr. Playfair thought with much justice. In every case of intractable vomiting we should endeavour to find out the special form of irritation. There is much to be said about the risk of the indiscriminate use of pessaries for cervical dilatation during pregnancy, but above all things it is necessary to take a broad, scientific view of the whole question, and not to adhere to any exclusive theory such as that advocated by Dr. Hewitt, to the overlooking of the concomitant conditions of which he makes so light.

Dr. Cleveland believed that the opinion of the Society was, on the whole, that the relation of the ascertainable condition of the uterus with, at all events, the less severe forms of vomiting could not be regarded in the light of cause and effect. Pregnancy disturbs the nervous equilibrium, and some women suffer from toothache, in others from a grave neurosis (may be) of the pneumogastric nerve (vomiting). His special object was to point out the danger to life from prolonged and excessive vomiting in pregnancy, and to enquire what is the probable mode of death. Is it not failure of the heart's action? and if so, as one of the means of averting the tendency to death ought we not to lay stress on the necessity of rest in the recumbent position? He related a case of violent vomiting in which death ensued on the patient's getting out of bed contrary to strict injunctions. *Post-mortem* the heart was found somewhat dilated, the liver large and congested. The uterus was pregnant about ten weeks.

Dr. Murray was not inclined to believe that in pernicious vomiting other organs are implicated, for, if so, why does the vomiting sometimes cease when the cervix is dilated? He had recently seen a case where this treatment stopped the treatment for some days, but the patient died exhausted after expelling the uterine contents. There was no displacement of any kind. He thought that after a fair trial of remedies, early interference with the pregnancy was best for the patient.

Dr. Wynn Williams did not find that flexion of the uterus, apart from adhesions, was associated with severe vomiting in pregnancy. Neurosis would account for great sickness. The only two deaths he had seen had been in alcoholic patients with liver disease. In a case of severe vomiting he had advised the passage of a sound just within and around the os uteri, and the vomiting had ceased.

Dr. Bantock had never met with a case of uncontrollable vomiting. He thought Dr. Hewitt's theory too one-sided. The apparent state of anteflexion in early pregnancy is not properly flexion at all, but a condition produced by change in the size of the organ as it grows and expands, the apparent flexion increasing as pregnancy advances. Therefore the ordinary teaching that anteflexion is usual in early pregnancy is utterly wrong. He thought the cause of the vomiting was irritability of the uterine body, especially about the os internum. This is illustrated by the vomiting which accompanies artificial dilatation of the os internum (though not of the os externum), and also the normal dilatation of the os internum during labour. He could understand the possibility of increased tension of the fibres about the os internum in retrovertion and retroflexion, but not in anteflexion, and still less in anteversion.

Dr. Heywood Smith said that the uterus of early pregnancy was best described as antecurved. He had a case in which vomiting had persisted to within seven days of confinement, but there was probably a small fibroid as well as ovaritis, and another was probably due to cervicitis. He thought that the fact that vomiting often began on waking and before getting up, spoke against Dr. Barnes' explanation, and in favour of the waking up of the uterus and its renewed energy acting on an empty stomach.

Dr. Graily Hewitt said that the paper stated that there were two factors in the vomiting—(1) altered position of incarceration, (2) induration of tissue near the os internum. Dr. Galabin said that the therapeutic test, viz., by the elevation of the uterus, spoke against the theory, but in 5 out of 27 typical cases the sickness was cured by elevating and replacing the uterus, and in two others it was at once relieved for a time, the uterus not being maintained in position. Five other cases of severe sickness were cured by postural treatment, rest, and measures calculated to prevent impaction. Uterine sickness, apart from pregnancy, might even lead to vomiting of blood. He did not consider the frequent occurrence of degeneration of organs in pregnancy proved. Dr. Playfair had made similar remarks to those made to-night as to "riding a hobby" some few years ago at a discussion of a former paper of Dr. Hewitt's, but a year or two later he stated that he had changed his mind since reading Dr. Hewitt's book. He hoped for a similar revulsion of feeling in the present instance. With regard to the criticisms on his cases, he had collected all the illustrative cases he could find, whatever their import. Vomiting after the middle of pregnancy was probably due to continued distension and growth of the uterus acting on the indurated tissues near the os internum.

ACADEMY OF MEDICINE IN IRELAND.

Medical Section.

F. R. Cruise, M.D., President, in the Chair.

Friday, November 21st, 1884.

The President's Address.

The President, having congratulated the Academy on its highly satisfactory position, entered upon the discussion of some of the relations existing between medicine and law, pointing out their frequently unsatisfactory nature. In passing, he touched upon the position of medical men as experts, as witnesses, and as defendants. He proceeded to discuss their relations with the Court of Chancery, both as regards their attendance on minors and lunatics and as claimants for settlement of accounts paid through the court. He illustrated by cases arising within his own experience the difficulties met—first, from the non-payment of these accounts through the fault of officers of the court; and, secondly, by the arbitrary reduction of fees.

Lupus and its Treatment.

Dr. Walter G. Smith read a communication on the various forms of lupus, which he illustrated by plates. The discussion on this paper was postponed to the next meeting.

Case of Anuria.

Dr. Walter Bernard, of Londonderry, related the clinical history and exhibited the morbid specimens of a case of prolonged anuria occurring in a man, aged 75 years. In December, 1883, micturition became unusually frequent. In February, 1884, epistaxis and hæmaturia occurred, accompanied by diarrhœa and febrile symptoms. In May the hæmaturia recurred, and between the 6th and 17th of June complete suppression of urine existed, curiously without any inconvenience to the patient. When the flow of urine was re-established, the amount passed averaged 125 to 140 ounces. Suppression of urine set in again on July 4th and 5th, and on the third day he passed bloody urine. In August a tumour was detected behind the pubes. He rapidly wasted, and died on September 13th. The *post-mortem* examination was held eleven hours after death. The urino-genital organs were removed. Mr

Shattock reported having found soft carcinoma of the prostate, bladder, and liver; both ureters were dilated. No carcinoma existed in the substance of the kidneys.

The PRESIDENT said this was the first time he had heard of total suppression of urine lasting eleven days. It was difficult to understand how it could have taken place for such a length of time without uræmic poisoning.

Dr. ABRAHAM observed that the microscopical specimens were the most beautiful he had seen for some time of morbid growths in the bladder and prostate. As regarded the origin of the growths he would scarcely venture an opinion. There were several cells and nests of cells which were extremely similar to the cells of the epithelium of the bladder. He agreed with the remark as to the extreme rarity of carcinoma of the prostate. Indeed, having seen a large number of tumours, he had only come across a single case, which had occurred in the practice of Mr. Martin.

Dr. FINNY expressed his satisfaction with Dr. Bernard's remarkable paper. The pathological conditions to which he had alluded were of great rarity. The clinical aspect of the case was also unique—that suppression of urine could exist for so many days without symptoms. The explanation that it must have been from some nerve cause was likely to be the true one. Where complete suppression of urine took place, head symptoms were extremely rare, but urinary fever and uræmic poisoning were not uncommon. In the absence of pathological change to account for the suppression of urine so many days, they must look to a nerve origin.

Dr. HENRY KENNEDY, referring to the duration of the anuria, said he had, in cases of cholera, frequently seen patients recover after four days, and once after five days, and the recovery was apparently due to the vomiting. Even when the primary symptoms of cholera had subsided the vomiting went on, and the patients recovered; so that vomiting seemed to be a vicarious effort on the part of the system to keep life going. He did not know that there was any connection between the malignant disease and the anuria. Any cases he had seen were not connected with malignant disease, and the case under consideration was in that respect uncommonly remarkable.

Dr. BERNARD briefly replied.

DIARY OF THE YEAR.

JANUARY.

4th.—Annual Meeting of the Pathological Society—Mr. Hulke's Presidential Address.

7th.—Publication of Dr. Koch's Fifth Report on Cholera.
Mr. Brudenell Carter's First Lettsomian Lecture on Cataract at the Medical Society.

9th.—Surgeon-General Hunter's Paper On the Origin of the Cholera Epidemic of 1883 read at the Epidemiological Society.
Death of Mr. Wheatley, Resident Librarian to the Royal Medical and Chirurgical Society.

10th.—Discussion on Sympathetic Ophthalmia at the Ophthalmological Society.

11th.—Annual Meeting of the Clinical Society.

15th.—Presentation of Testimonial to Messrs. Bower and Keates.

19th.—The Great Northern Hospital amalgamated with the Central Hospital for North London under the title of Great Northern Central Hospital.

21st.—Complimentary Dinner to Sir Richard Owen, K.C.B., by the Employés at the British Museum.

22nd.—Professor Roy's Paper on the Arterial Blood Pressure read at the Royal Medical and Chirurgical Society.

FEBRUARY.

1st.—Inaugural Meeting of the Hospitals Association at the Mansion House.

4th.—Death of Armand Leslie in the Soudan.

5th.—Defeat of the Antivivisectionists at Oxford in Convocation.

9th.—Death of Dr. J. H. Balfour, Professor of Botany in the University of Edinburgh.

11th.—Banquet given by the President of the Royal College of Surgeons of Ireland.

12th.—Dr. Straus' Communication on Cholera to the Royal Medical and Chirurgical Society.

13th.—Deputation of the Volunteer Medical Organisation to the Marquis of Hartington.
Adjourned Discussion at the Epidemiological Society on Surgeon-General Hunter's Paper.

16th.—Mr. Mundella invited Dr. Crichton Browne to visit some of the Elementary Schools.

18th.—Discussion on the Cold Bath Treatment of Enteric Fever at the Medical Society.

26th.—M. Pasteur announced to the Academy of Science in Paris his Protective Inoculation against Rabies.
Death of Dr. Alexander Wood at Edinburgh.

29th.—*Conversazione* given by the Cambridge Graduates Medical Club.

MARCH.

1st.—Annual Meeting of the Royal Medical and Chirurgical Society—Dr. George Johnson, F.R.S., elected President.

3rd.—Annual Meeting of the Medical Society—Mr. A. E. Durham elected President.

6th.—Medical Act Amendment Bill read a second time in the House of Lords.

7th.—Dr. Clifford Allbutt's First Gulstonian Lecture on Visceral Neuroses.

8th.—Annual Dinner of the Medical Society.

12th.—Formation of Oxford Graduates Medical Club.
Mr. R. T. Reid's Bill to Absolutely Prohibit Vivisection read a first time in the House of Commons.

14th.—Publication of Dr. Koch's Sixth Report, announcing the Comma-Shaped Bacillus to be the Micro-Organism of Cholera.

17th.—Mr. F. S. Eve's First Erasmus Wilson Lecture on Pathology at the College of Surgeons.
First Trial of Weldon *v.* Winslow concluded.

19th.—Dr. Hughlings Jackson's First Croonian Lecture on Evolution and Dissolution of the Nervous System.
Death of Dr. Hall Davis.

20th.—Medical Act Amendment Bill passed through Committee in the House of Lords.

21st.—Death of Dr. Allen Thomson, F.R.S.

22nd.—Meeting of the Fellows and Members of the Royal College of Surgeons.

25th.—Meeting of the General Medical Council.

26th.—First Meeting of the Hospitals Association.

27th.—Mr. Watson Cheyne's Demonstration of Pathogenic Organisms at the Parkes Museum.
Discussion on Pneumonia at the Liverpool Medical Institution.

28th.—Dr. Andrew's First Lumleian Lecture on the Ætiology of Phthisis.

31st.—Scottish Corporations' Conjoint Scheme received the Sanction of the General Medical Council.

APRIL.

2nd.—End of the Session of the General Medical Council.

6th.—Publication of Dr. Koch's Seventh Report on Cholera.

7th.—Meeting at the Royal College of Physicians—Re-election of Sir William Jenner as President.

9th.—Jacksonian Prize of the Royal College of Surgeons awarded to Mr. Treves.

11th.—Death of J. B. Dumas.
Decision in the Gilbert-Scott Case.

16th.—First Meeting of the Association of Medical Officers of Schools.

17th.—Opening of the Edinburgh Tercentenary Festival.

28th.—Death of Dr. A. W. Barclay.

30th.—Formation of the Association of Members of the Royal College of Surgeons.

MAY.

1st.—*Conversazione* at the Charing Cross Hospital Medical School.

5th.—Debate on the Lunacy Laws in the House of Lords.
Conversazione at the Medical Society—Annual Oration delivered by Dr. C. T. Williams.
6th.—Death of Dr. Samuel Gross.
Meeting of the Society of Apothecaries to Protest against their Exclusion by the Medical Bill.
8th.—Opening of the International Health Exhibition.
12th.—Death of Adolphe Wurtz.
13th.—Guy's Hospital Biennial Festival.
14th.—Consecration of the University of London Lodge of Freemasons.
22nd.—First Meeting of Oxford Medical Graduates Club.
24th.—Dr. C. S. Roy elected first Professor of Pathology at Cambridge.
27th.—Discussion on the Drainage of Basic Cavities of the Lung at the Royal Medical and Chirurgical Society.
29th.—Meeting at the College of Physicians—List of Fellows proposed by the Council referred back.
30th.—Death of Dr. Alexander Tweedie, F.R.S.

JUNE.

9th.—Conference on Public Health at the Health Exhibition.
11th.—Sir Henry Thompson's First Lecture at the Royal College of Surgeons, on some points in connection with the Surgery of the Urinary Organs.
12th.—Formation of the Association of Fellows of the Royal College of Surgeons—Mr. Pollock elected President.
15th.—Hospital Sunday in London.
16th.—Public Meeting at the Mansion House in support of the Funds of University College Hospital.
18th.—Official Declaration of the Outbreak of Cholera at Toulon.
19th.—Mr. Stewart elected Conservator of the Hunterian Museum at the Royal College of Surgeons.
24th.—Debate on the Medical Act Amendment Bill in the House of Commons.
26th.—Bill read a second time in the House of Commons.

JULY.

3rd.—Annual Election of Council at the Royal College of Surgeons.
4th.—Annual Meeting of the Ophthalmological Society.
10th.—Mr. Cooper Forster elected President of the Royal College of Surgeons.
11th.—First Cavendish Lecture delivered by Mr. Holmes at the West London Medico-Chirurgical Society.
Death of Professor Jäger.
14th.—Opening of Miss Mary Wardell's Convalescent Home for Scarlet Fever.
18th.—Debate on the Indian Medical Service in the House of Commons.
20th.—Death of Mr. Cæsar Hawkins.
23rd.—Mr. Victor Horsley elected Professor-Superintendent of the Brown Institution.
24th.—Ambulance Drill at Aldershot conducted, for the first time, by means of the Electric Light.
25th.—Medical Bill abandoned in the House of Commons.
29th.—Meeting of the British Medical Association at Belfast—Dr. Cuming's Presidential Address.
Discussion on Over-pressure in Schools at the International Health Exhibition.
30th.—Dr. Ord's Address in Medicine at the Belfast meeting.
Sir W. MacCormac's Address in Surgery at Belfast.
31st.—Professor Redfern's Address in Physiology at Belfast.
Weldon *v.* Semple—Verdict for Plaintiff.

AUGUST.

2nd.—Conclusion of the Belfast Meeting.
5th.—Gold Medal of the Royal College of Surgeons awarded to Sir Erasmus Wilson.
Report of Dr. Straus to the Academy of Science of Paris on the Outbreak of Cholera at Toulon.
8th.—Death of Sir Erasmus Wilson.
10th.—Opening of the International Congress at Copenhagen—Inaugural Address by Professor Panum.
11th.—Pasteur's Address on Rabies at the Congress.
Good *v.* Whittle concluded at Liverpool—Verdict for the Defendants.
14th.—Sir W. Gull's Address on International Collective Investigation at the Congress.
15th.—Virchow's Address on Metaplasia at the Congress.
Death of Professor Cohnheim.
16th.—Termination of the Congress.
18th.—Dr. Phillipson's Bradshawe Lecture at the Royal College of Physicians.
21st.—Meeting of the International Congress of Hygiene at the Hague.
23rd.—Hospital *Fête* at the International Health Exhibition.

SEPTEMBER.

1st.—Meeting of the International Otological Congress at Basle.
Red Cross Conference at Geneva.
Outbreak of Cholera at Naples.
6th.—Hospital Saturday.
11th.—Death of Mr. Netten Radcliffe.
15th.—Publication of Dr. Crichton Browne's Report on Over-pressure in Elementary Schools.
17th.—Publication of Professor T. R. Lewis's Memorandum on the "Comma" bacillus.
Meeting of Social Science Congress at Birmingham.
30th.—Meeting of the Sanitary Congress at Dublin.

OCTOBER.

1st.—Opening of the Medical Session in London and the Provinces—Introductory Addresses at St. Mary's, St. George's, Middlesex, King's College, St. Thomas's, University College and the Westminster Hospitals—*Conversazione* at Guy's and the London Hospitals—Dinner of Past Students at St. Bartholomew's Hospital.
2nd.—*Conversazione* at St. Mary's Hospital.
7th.—Meeting of the General Medical Council—Re-election of Sir Henry Acland as President for a third term of five years.
9th.—Conjoint Scheme of the College of Surgeons and College of Physicians sanctioned by the General Medical Council.
11th.—Opening of the New University Buildings in Vienna.
The General Medical Council determined to re-consider the Subject of Preliminary Education.
Dr. Koller communicated his researches on Cocaine as a local anæsthetic to the Vienna Society of Physicians.
18th.—St. Luke's Day—Dr. Russell Reynolds delivered the Harveian Oration at the College of Physicians.
20th.—Sir Joseph Lister read a Paper on Corrosive Sublimate as an Antiseptic Dressing at the Medical Society.
Death of Dr. Samuel Rabbeth.
23rd.—Discussion on Intestinal Obstruction at the Liverpool Medical Institution.
27th.—Opening of the Irish Medical Schools.
28th.—Opening of the Medical Schools in Glasgow.

NOVEMBER.

3rd.—Outbreak of Cholera in Paris.
5th.—Discussion at the Obstetrical Society on the Uncontrollable Vomiting of Pregnancy.
Sir Spencer Wells gave an Address at Birmingham on the Revival of Ovariotomy.
Death of M. Fauvel.
6th.—Mr. Cross made a statement in the House of Commons relative to the Alterations in the Indian Medical Services.
8th.—General Meeting of the Association of Fellows of the Royal College of Surgeons.
Publication of Dr. Koch's reply to his Critics in the *Deutsche Medicinische Wochenschrift.*
10th.—Private Meeting in reference to establishing a Teaching University in London.
13th.—Mr. Jonathan Hutchinson delivered the First Bowman Lecture at the Ophthalmological Society.
14th.—Mr. Morrant Baker's paper on Charcot's Joint Disease at the Clinical Society.
22nd.—Death of Dr. Frederick Mahomed.
25th.—Removal of a Tumour of the Brain by Operation—First case on record.
Weldon *v.* Winslow—Appeal—Verdict for Plaintiff.

28th.—Adjourned debate on Charcot's Joint Disease at the Clinical Society.
30th.—Death of Sir Alexander Grant, Vice-Chancellor and President of the University of Edinburgh.

DECEMBER.

12th.—Mr. Victor Horsley delivered the First of his Lectures as Professor-Superintendent of the Brown Institution.
Adjourned debate on Charcot's Joint Disease at the Clinical Society.
15th.—Meeting of the Committee to take steps to establish a Teaching University in London.
16th.—Opening of New Out-patient Rooms at the Middlesex Hospital.
19th—Jubilee Meeting at the Charing Cross Hospital Medical School.
23rd.—Close of debate on Charcot's Joint Disease at the Clinical Society.

MEDICAL CONSULTATIONS.

NO. VI.—THE MEDICAL YEAR.

SCENE—*The staff-room of the "Stethoscope."*

DRAMATIS PERSONÆ.

NONPARELL.—*Editor.*
BREVIER.—*Sub-editor.*
DIAMOND.—*A Medical Journalist.*

NONPARELL. Pleased to make your acquaintance Mr. Diamond. Pray find a chair. My Chief-of-the-Staff, Dr. Brevier. I am glad you can come to our help in this little matter. If you ever find time to read us, you will know that it has not been our practice to pass judgment on current medical events. We regard the *Stethoscope* simply as a medium for the propagation of facts, which must be neither magnified nor distorted in passing through it.

DIAMOND. A plane mirror, in other words.

N. Exactly. Well, this December we have decided to break through our custom for once, and to give a brief running criticism of the more noteworthy occurrences of the year. By this means we hope to fulfil our duty to our readers, without laying ourselves open to the charge of passing crude and hasty judgments, such as the writers of weekly journals must inevitably incur. In medicine, I take it, nothing is gained by slap-dash criticism. Well, the preparation of the article which I have in contemplation is a little out of the line of our ordinary staff, most of whom are cultivators, so to speak, and not excisemen.

D. You want a specialialist, then, an expert at the scales?

N. Just so, and we hope to find him in you. But it will be worth while, I think, to have a little talk over matters as a preliminary, and then we will leave you to shape our rough-hewn criticisms. I have jotted a few notes down here to guide us. Let me see, they begin with Koch on cholera.

BREVIER. And end, perhaps, with Koller on coca.

N. Steady, Brevier. No, my last entry is F.R.S.'s letter to the *Times* on brain surgery.

B. We set off, then, with a "comma," and end up with a note of admiration.

N. And, jesting apart, both a trifle premature.

D. Stay, let me make a note. I thoroughly agree with you. (*Writes.*) "Premature disclosures, impatience for results, science getting fussy, evil influences of popularity—*moral*, keep clear of daily papers." We can make a good point of that. As for Koch, I doubt if he ever meant his reports to be published in the *German Gazette*. It has put him in quite a false position. The same cannot be said for F.R.S. To my thinking, science ought to keep out of the crush. There is no need for hurry. We might say she should be "like Patience on a monument."

B. "Smiling at grief."

N. No, no. We don't want to put a motto in Miss Cobbe's mouth. Well, then, we defer comment on Herr Koch, refuse to accept the "comma" as proved, but incline to regard it as provable. We must say something more about cholera generally. What do you propose, Mr. Diamond?

D. That during the past year neither the discussions on cholera nor its invasion have taught us anything new.

N. Except that, while like other low creatures it loves warmth and dirt, unlike them it loves water.

D. That remains to be proved. I think Koch was wrong. Not in his premisses, possibly, but in deciding that the time was ripe to work upon them. To banish water-carts from a cholera-stricken town, on the strength of a laboratory experiment, is, to say the least, a large order.

N. Immense. My next note is "Typhoid and the cold bath."

D. Good, the transition is easy. One moment. (*Writes.*) "Cold water, cholera, and typhoid."

B. Someone said the other day that the prevalence of typhoid was an index of susceptibility to cholera.

D. I will note that too. Well, what attitude will you take as regards the cold bath treatment?

N. That it is excellent when used with discrimination, but, like all fashions, it is apt to carry unreason off his feet. It is not adapted for routine use.

B. What treatment is?

N. The thermometer, in short, is a good ally, but a bad master. I should like you to take up a strong position on the whole question of antipyretics. Quote Nothnagel, and say that all antipyretic treatment as such implies a one-sided view of the fever process. We know little or nothing of its intimate pathology, and the consciousness of ignorance ought to enforce caution. The same remark applies all round. Nothing has come out more clearly during the year than our ignorance of pathology. At present it is like the old maps of Africa. We have not yet succeeded in scratching out the hypothetical elephants and camels that our grandfathers drew; and if we had, there is nothing to put in their place. Take the pathology of myxœdema, for instance, and Charcot's joint disease, two subjects which have this year drawn all eyes upon them. What accurate knowledge have we of the physiology of the thyroid gland, let alone its pathology, or of the relations of the nerves to joint integrity. Charcot has claimed the discovery of one hitherto unsuspected pathological link, and Mr. Horsley has demonstrated another; but can we doubt that there must exist many more behind, which no one has yet so much as dreamt of? If every practitioner would but always remember to hold these unimagined possibilities before him *in terrorem*, there would be less of the prescribing with a light heart of which we hear and see so much. Have you followed me? Well, then, let us pass to the next subject. O! "Visceral neuroses."

B. Another unsuspected link.

N. More or less so. Dr. Allbutt has certainly lightened our darkness on one point, or, at any rate, made us realize it better. There is the same danger here, however, that undiscriminating practitioners will fall into a habit of putting all visceral trouble down to nerves.

B. And give up treating them, which might be an advantage.

N. Well, yes, it might be an advantage to have one category of disease which paralysed the active therapeutist. But it would be a disadvantage if diet and regimen were neglected in these cases, under the idea that they are nervous. Dr. Allbutt showed that they are eminently treatable, and it is only those who misread his teaching who will neglect them.

D. What will you say of the other lectures at the College of Physicians?

N. Both excellent! But both again remarkable rather for indicating our ignorance of pathology, than for diminishing it. Dr. Hughlings Jackson's were, I think, *caviare* to the general, a glimpse into the pathology of the future, when men shall live in a Spencerian atmosphere; Dr. Andrew's, a dignified, logical, and effective protest against the prevalent bacillus worship—a reminder to give the bacillus his due, but not to be hasty in revolutionizing our modes of treatment. Looking more to the active than to the predisposing cause, it might be logical to treat phthisical patients like lepers, as they are said to be doing in Austria. But it is illogical on any view to attempt to disinfect within the body an organism which, according to Dr. Klein, fights disinfectants as stubbornly as anthrax spores do. In fact, we are wofully ignorant on the whole subject of disinfection. Dr. Klein and Mr. Wynter Blyth have been doing something towards giving us sounder knowledge, but it is difficult to convince people that half the disinfection they practise with such circumstance is little better than fetish-worship. You must say something of the new field that Dr. Burdon Sanderson has opened in the researches on the disinfectants of the "aromatic" group, which bacteria themselves elaborate. It is a paradoxical chapter in biology.

D. Paradoxical only at first sight, I think. We, too, excrete poisons which would kill us, and do kill us, if they are not removed. Plants are the only things that flourish on the products of their own decay.

B. I would suggest that all the scattered points that have been mentioned should be grouped together in illustration of this salient fact—that we now are in the very thick of a struggle against lower organisms, which will some day hold a prominent place in the history of medicine. It has all the incidents of a military campaign. Here a rapid attack of the enemy's forces on our flank in the form of a cholera outbreak; met by belated attempts to cut off their supplies, by Chinese expedients to bar their march, and by efforts more successful to surround stragglers and exterminate them. In another part of the immense field endeavours to turn our enemies against themselves, to drill and culture them into our mercenaries, a task to which M. Pasteur has devoted himself with such success. Elsewhere we are learning from the enemy the secret of manufacturing Greek fire for their annihilation. And all the while the foe is lurking in our midst, striking out, never blindly, but with unerring instinct choosing only one's weak spots.

N. Magnificent, my dear Brevier, but not criticism; or if so, criticism that would rather astonish the readers of the *Stethoscope*. Don't waste it on them; reserve it for an epic. We must say something about Pasteur and hydrophobia, however, and that brings us to the International Congress.

D. We can hardly give any useful criticism on that until we have the Transactions before us. Sir W. Gull's paper and the organisation of international collective investigation deserve a sympathetic mention, the more so on account of poor Mahomed's death. Who would have thought a twelvemonth ago, when Mahomed was working hard at the Bower and Keates Fund, that before another January came round we should be subscribing with equal enthusiasm to a Mahomed Fund. Happily in both cases the profession has shown that it has an open hand when its sympathies are touched.

N. Yes; it is only medical politicians who find it unresponsive. I doubt, for instance, whether the failure of the Medical Bill disappointed anyone but the journalists. The profession at large did not appear to care a snap of the fingers about it.

D. Well, speaking as a journalist, I do not greatly mourn its failure. What we wanted was finality, something to dissipate the idea that all our arrangements were only provisional, and dependent on the goodwill of Parliament. The failure of the Bill has secured this almost as efficiently as its success would have done. How different is the outlook now from what it was last December! Then all the licensing bodies were paralysed by the prospect of impending legislation. Now the incubus has been removed, and they are all setting steadily to work to make the best of things, with the view of showing that by the time a new ministry has got up steam enough for a new Medical Bill, the necessity for it will have become a thing of the past. In England as well as in Scotland the corporations have combined, and even the Apothecaries Society is anxious to give a complete diploma. Then there is a faint possibility that this new Teaching University may revolutionise medical education in London. And all this recent activity, which is born out of the feeling that the State will not interfere, will serve as an additional excuse for its non-interference. The only body which has shown no signs of mending its ways is the General Medical Council, which at its last sitting, when so many matters of the greatest importance were waiting for discussion, wasted days on debating whether boys should learn geography.

N. Well, we will leave the Medical Council to your tender mercies.

D. You may trust me. It is bad form to abuse it too much. To return to the English corporations, there is no question about their waking up. The democratic spirit is spreading among the Fellows, and during the year both Councils have been sharply reminded that they are not entirely irresponsible. They are entering upon a period of transition, and I think we might fairly express a hope that they will emerge from it combined into a College of Physic, or if the New University scheme succeeds, into a full-blown Faculty of Medicine.

N. Yes, I approve the idea; but pray do not let your article be too dreamy, Mr. Diamond. Sound common sense is what the medical reader likes; "eloquence and showy-literary qualities," we have it on the best authority, are not to be encouraged. Of course you will say something nice about the Health Exhibition.

D. Yes, it will be easy to do that. And what shall I call the article.

B. Why not "Progress and Poverty"—which would express your main thesis—the minuteness of our advance compared with the desert of ignorance before us?

N. I don't like catch-titles. Give me good common-sense English. If you write rubbish, a telling title won't make it more readable.

D. Pardon me, it is not my intention to write rubbish.

N. No, no, of course not. I was only speaking generally. Well, then, we shall expect a straightforward, common-sense article on the lines we have laid down, and a common-sense title to match it. Good-bye!

MEDICAL NEWS.

University of Edinburgh.—At a recent meeting of the Senatus Academicus, the following gentlemen received the degrees of M.B., C.M., viz. :—

R. M. Brown, A. H. Croucher, J. C. Mackenzie, Y. S. Sanitwongse, and G. H. H. Symonds.

University of Dublin, Trinity College.—At the Michaelmas Term Examination for the Degree of Bachelor of Medicine (M.B.), held on Monday, December 1, and following days, the successful candidates were placed in the following order of merit, viz :—

Francis J. G. King; Walter Kiddle; Richard W. Gilmore; William Hallaran; Francis I. Harpur, William R. Rice, equal; Rowland H. Scovell; George Raymond; James I. O'Donnell; Orlando P. Beater; John B. Buchanan; Alexander I. Boyd; Thomas N. Flood; Samuel H. Halahan; John I. C. Watson

At the Michaelmas Term Examination for the Degree of Bachelor of Surgery (B.Ch.), held on Monday, December 8, and following days, the successful candidates passed in order of merit as follows—

Walter Kiddle; William Hallaran; Francis I. G. King; Baptist G. Frith; Smith Telford; Francis I. Harpur.

The examination for the Diploma on State Medicine took place on Thursday, December 11, and following days. The undermentioned candidates were successful—

John S. Fenton; Glascott H. Symes; Nicholas C. Ferguson.

King and Queen's College of Physicians in Ireland. — At the usual monthly examinations for the Licenses of the College held on Monday, Tuesday, Wednesday, and Thursday, December 8, 9, 10 and 11, the following candidates were successful, viz. :—

For the Licence to practise Medicine—

Patrick Duff, Ballaghaderrin, County Mayo; Martin Fennelly, County Kilkenny; Charles Jackson, Southsea; Cornelius Ignatius Kelly, Birr, County Tipperary; Graham Kennedy, Kilcool, County Wicklow; Charles Edmond Lister, Liverpool; John Joseph McDonnell, Dublin; Thomas George Millerick, Limerick; Andrew Murphy, Balbriggan, County Dublin; Llewellyn Thomas Manly Nash, Dublin; Jane Harriett Walker, London.

For the Licence to practise Midwifery—

Martin Fennelly; Charles Jackson; Cornelius Ignatius Kelly; Graham Kennedy; Charles Edmond Lister; John Joseph McDonnell; Llewellyn Thomas Manly Nash; Francis Howard Sinclair, Bray, County Wicklow; Jane Harriett Walker.

The following Licentiate in Medicine of the College, having complied with the by-laws relating to Membership pursuant to the provisions of the Supplemental Charter of December 12, 1878, was duly admitted a Member of the College—

Joseph John Lamprey, Lic., Med., 1874, Surgeon, Medical Staff.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 18th, 1884 :—

Leonard Henry Armstrong, Newcastle-upon-Tyne College of Medicine; Lawrence Barnett, University College; Harvey Bradbury, London Hospital; Harry Percival Gaston, Charing Cross Hospital; Joseph Andrew Going, London Hospital; John Good, Charing Cross Hospital; Robert William Hazell, London Hospital; Jno. Frail Harries, King's College; Charles Booth Meller, St. Bartholomew's Hospital; Colin Dwight Morris, London Hospital; William Edward Picton Phillips, Guy's Hospital; Rick James Reece, St. Bartholomew's Hospital; Robert Briggs Wild, Owen's College, Manchester; Bernard Volckman, London Hospital.

Cocaine as an Anæsthetic for the Genital Mucous Membrane.—Dr. Ernst Fränkel, of Breslau, contributes to the *Centralblatt für Gynäkologie* (December 6th, 1884) a paper on this subject. The usefulness of this newly introduced drug as an anæsthetic to the mucous membrane of the eye and the larynx has been attested by many observers. Dr. Fränkel found that the 5 per cent. solution, which is effectual in the case of the just named mucous membranes, is not enough to anæsthetize the vagina. He therefore employed a 20 per cent. alcoholic solution. (Cocain mur. 1, aq. dest. 3, spt. vin. rect. 2—not to be filtered. This solution, if kept, becomes thick and turbid, but can be restored to its proper condition by putting to it a few drops of alcohol.) By painting the valvo-vaginal mucous membrane with this solution, he finds the following results can be obtained: (1) The sensitiveness to pain is considerably diminished—proceedings which ordinarily produce painful sensations are felt superficially on the mucous membrane hardly at all, and in the deeper parts much less than without cocaine. (2) Inflamed mucous membrane is made free from pain by cocaine, and the pallor which follows its application shows its effect in producing ischæmia. (3) The reflex excitability of the vaginal orifice is diminished. Hence cocaine is of great value in vaginismus. It is useful in fissure of the anus, and as a preliminary to the introduction of the rectal speculum; also as a preliminary to cauterization of the vulva, the removal of warts of a urethral carunele, and other measures which cause local pain.

Enucleation of the Eyeball under Cocaine.—Dr. Turnbull, oculist to the German hospital, Philadelphia, states (*Philadelphia Medical Reporter*, Nov. 29) that on the 12th November he successfully extirpated the eyeball of a healthy German, 30 years of age, for traumatic (cicatricial) irido-cyclitis, "using no other than the new local anæsthetic and hæmostatic, the hydrochlorate of cocaine. Of a freshly made 4 per cent solution 1 drop was instilled every 3 minutes until the 8 drops had been used, the patient lying on his back on the table. The conjunctiva was seen to pale gradually. During the successive stages of the operation one or two drops were let fall in from time to time, less than half a dram of the solution having been employed altogether. The amount of hæmorrhage attending the operation was much below the average, and the patient declared that he felt no pain. Dr. Carl Seyler, who dropped the solution into the eye, and other medical men present confirm his statement. Dr. Turnbull would not propose cocaine as a general substitute for ether or chloroform, but thinks it a matter of great satisfaction to be possessed of such an agent when any circumstances counter-indicate their employment.

The Causes and Prevention of Blindness.—The International Society for the Prevention of Blindness and Amelioration of the Condition of the Blind has adjudged to Dr. Mules, surgeon of the Manchester Royal Eye Hospital, one of two prizes offered by the Society for an essay on the "Causes and Prevention of Blindness." The jury, 12 in number, were selected from the leading ophthalmic surgeons of Europe. The decision of the jury on the merits of the respective essays was given at the Hague in June last, but the names of the successful candidates for the international prizes have only now been published.

Female Medical Students at Paris.—The number of female students inscribed at the Paris Faculty of Medicine shows a considerable increase, there being at the present time 78 upon the register, as against 45 last year, while 12 more are awaiting admission. Only 13 of the whole number are French, there being 47 Russians, 11 English, and 3 Americans. M. Béclard expressed his regret that most of the female students of foreign origin had been admitted without producing their degree or the equivalent of it, and urged the Council to make this compulsory in the future. No decision was arrived at as to the admission of women as in and out students at the hospitals; but the preponderance of opinion seemed to be in favour of admitting them as the latter, but not as the former.

Wound of the Internal Mammary Artery, with Recovery.—Dr. Tilling, of the Alexander Hospital, St. Petersburg, relates (*St. Petersburger Medicinische Wochenschrift*, November 15) the case of a man 19 years of age, who had received a wound from a knife in the fourth intercostal space. Considerable bleeding into the cavity of the thorax having taken place, it was resolved to tie the internal mammary which could scarcely have escaped the knife. The vessel was cut down upon and tied, and the man recovered. Dr. Tilling says that of 38 cases of this injury 26 proved fatal. Dr. Vosz in his dissertation on this accident, states that primary ligature had been applied once by himself and twice by Dr. Bergmann, of Dorpat, his own case alone recovering.

Salicylic Acid for Corns.—M. Pierre Vigier (*Gazette Hebd.*, October 31) observes that there have been for some time past sold in the shops, various applications for corns under the most fantastic names, but of undoubted utility. Their authors have profited by the remarkable properties of salicylic acid, fixing it by means of collodion, and which applied to the skin produces a solid varnish, and causes neither pain nor other inconvenience. He has examined all these secret preparations, and believes that the following formula is a correct representation of their composition:—Salicylic Acid, 1 gramme; Alcoholic Extract of Cannabis, Sativæ, ½ a gramme; Alcohol, at 90°, 1 gramme; Ether at 62°, 2½ grammes, and Elastic Collodoin, 5 grammes; mix *secundum artem* and keep in a stoppered bottle. This is applied by passing over the corn several times a little brush, or the end of a match, which has been dipped in the liquid. This is repeated every other day for a week, and some days later the corn may be easily removed under pressure of the finger, or after a foot-bath.

Ovariotomy.—Reporting to the Paris Société de Chirurgie on 35 cases of ovariotomy and laparotomy which have occurred in his practice, Professor Terrillon concludes (*Bulletin de Thérapeutique*, October 30) as follows: (1) it seems that the contra-indications of ovariotomy become more and more rare in proportion as the operation furnishes more recoveries; (2) I have operated, without making any choice, upon all the cases that have presented themselves to me, at least when there has been no absolute contra-indication derived from disease of an important organ; (3) I have thus acquired the assurance that old and resisting adhesions, whatever may be their extent, no longer prove an obstacle either to the operation or to recovery; (4) in four incomplete operations which I have practised there were infiltrated cysts in the broad ligament, of which two were para-ovarian, and two multilocular; (5) although nothing can be more mortifying for the surgeon than to leave an operation unfinished, yet as it is almost impossible to foresee the obstacles which may present themselves; this consideration ought not to arrest us, for we always have the hope of terminating difficult operations. Moreover, incompleted operations, whatever may be their primary gravity or the chances of relapse, where multilocular cysts are concerned, may still allow of a cure or a prolongation of existence.

Chloral Hydrate as an Antiseptic.—Dr. Warner, of Worcester, Mass., in a communication to the *Boston Medical Journal* (August 21), states that during the last ten years he has used a solution of chloral (three to five grains to the ounce) as almost his only dressing, and has found it acts admirably, as, while it is inodorous itself, it removes the fœtor of purulent discharges effectually. It is cheap, and simple in its application, and causing no stain can be sprinkled freely about. It seems also to act as a local sedative, often relieving pain of a recent injury or operation as to render resort to an opiate unnecessary. During the treatment of large suppurating wounds, it keeps the air of a ward or room pure, while there is no danger from its absorption, and the comfort from a light compress, moistened in the solution, is very great. Somewhat frequent changes are required to prevent the compress from becoming dry and sticky, and secure perfect cleanliness. It acts as a perfect germicide, rendering spraying quite unnecessary. In a solution in warm water, the hands of the operator, instruments, sponges, &c., are cleansed. Dr. Warner speaks of his experience of its employment in ovariotomy and other operations producing large surfaces, and greatly prefers it to carbolic acid and other antiseptics. Chloral may also be used with vaseline or glycerine, in the same proportions, if there is any reason to prefer this form of preparation.

Fees to Medical Witnesses.—At the Munster Winter Assizes, held at Cork, before Chief Justice Morris, on Friday, December 12th, Mr. Mahony, B.L. (instructed by Mr. Moran, solicitor, Rathkeale), applied, on behalf of the medical gentlemen attending the assizes, for an increase of the fees paid to them for attendance. It appeared that the limit had been struck at two guineas a-day, and 10*s.* for hotel expenses; and Mr. Mahony pointed out that 10*s.* was altogether inadequate for hotel. Mr. Atkinson, Q.C., said the order regulating expenses limited the Crown Solicitor. Mr. Mahony cited a decision made by Judge Lawson at Carrick-on-Shannon, where they allowed three guineas a-day, and 15*s.* for expenses to a medical man. Some of the witnesses attending at the assizes had come as far as from Scariff, in the county Clare, and others from Glin and New Pallas, in the county Limerick. His Lordship said, without making any abstract rule on the point, he would allow three guineas a-day, and 15*s.* hotel expenses to medical witnesses who came from long distances.

Morphiomania.—M. Notta, terminating an article on this subject in the *Archives Générales* for October and November, observes that the victims of this affection may be divided into two classes:—Those who employ morphia for the relief of incurable and painful maladies, as cancer, ataxia, &c., and who may well be excused for acquiring a habit which relieves them from dreadful suffering—in such persons morphomania may be regarded as incurable. But other persons, in whom it is curable, although often with great difficulty, the addiction to morphia, whether derived originally from using it in painful disease or as a means of satisfying pleasure, are less excusable than are the victims of alcoholism, surrounded as these are by so many temptations, and such facilities for obtaining the article which acts so mischievously on them. However this may be, morphomania has become a rapidly-spreading evil, and is by no means confined to the well-to-do classes; and M. Notta agrees with Dr. Huchard in proposing that pharmaciens should be prohibited from supplying morphia except upon the presentation of a recently dated prescription; and that practitioners should use every endeavour to prevent patients practising the injections themselves; while the late Professor Fonssugives would prohibit instrument makers from selling the Pravaz syringes except on the order of a physician. In hospitals also, M. Notta observes, the syringes are left about most carelessly.

Action of Convallaria on the Heart.—From a number of experiments on terrapins and frogs, Dr. Beyer, of the Navy (*Proceedings of Naval Medical Society*, 1884, No. 1.), concludes—(1) That convallaria increases the rate of the heart's action; (2) The work which the organ has to do is slightly increased; (3) It raises the intra-cardiac pressure; (4) Both auricles and ventricles are arrested in systole when medium doses are used: (5) Large doses arrest the heart at once; (6) The results are most probably due to the direct action on the muscular substance of the heart; (7) The drug has a decidedly cumulative action, acts much more slowly than digitalis, and is much more persistent after the heart is once under its influence. Dr. Beyer adds that the whitish, shrunken, and puckered appearance which the heart presents when very much under the influence of convallaria, the slow appearance of this phenomenon, and its persistence, all speak in favour of the view that the muscular substance of the heart is much interfered with. So far as his experiments go, he thinks that they warrant the conclusion that convallaria is contra-indicated in advanced cases of cardiac disease, in which the muscular structure has undergone degeneration. Convallamarin should be used in preference to any other preparation of the drug, and, on account of its cumulative action, not more than one full medicinal dose should be given in a day.—*New York Medical Journal*, August 23.

APPOINTMENTS.

Jones, T. W. C., M.A. Camb., F.R.C.S. Edin.—Surgeon to the Western Ophthalmic Hospital, *vice* Percy S. Jakins, M.R.C.S. Eng., resigned.

Key, A. C., M.R.C.P., L.M. Edin., L.S.A. Lond.—Physician to the Home of the Good Shepherd, Kinnerton Street, Belgrave Square.

Nicholson, G., M.R.C.S., L.R.C.P. Ed.—House Surgeon to the Royal Cornwall Infirmary, *vice* E. Roberts, M.R.C.S., resigned.

Paterson, W. B., M.R.C.S., L.D.S.—Dental Surgeon to St. Bartholomew's Hospital.

ROBINSON, L., M.R.C.S., L.S.A. Lond.—Senior House Surgeon to the Darlington Hospital, *vice* Dr. Hern, resigned.

SKIPTON, ALEXANDER, L.R.C.S.I. and L.R.C.P. Edin.—Resident Medical Officer of the Holloway and North Islington Dispensary.

VACANCIES.

BRISTOL GENERAL HOSPITAL.—Assistant House Surgeon. Salary, £50 per annum. Board, lodging, and washing, provided in the house. Candidates must send a certificate of registration, and also satisfactory testimonials of ability and good moral character. Applications to be addressed to the Secretary at the hospital, on or before January 10th.

DEVONSHIRE HOSPITAL, BUXTON, DERBYSHIRE.—Assistant House Surgeon. (*For Particulars see Advertisement.*)

LONDON FEVER HOSPITAL, LIVERPOOL ROAD, ISLINGTON.—Physician and Assistant Physician. Candidates must be Members or Fellows of the Royal College of Physicians. Applications to be sent in on or before January 2nd, 1885.

NEWCASTLE-UPON-TYNE INFIRMARY.—House Surgeon. Salary, £50 per annum, with board, lodging and washing. Candidates must be registered in surgery, unmarried, and free from the care of a family. Applications and testimonials must be in the hands of the Chairman of the House Committee on or before December 29th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House Surgeon and Secretary. Salary, £80 per annum with board and lodging. Candidates must be registered practitioners. Applications, with testimonials, stating age, to be sent to the medical staff on or before December 27th.

THE QUEEN'S HOSPITAL, BIRMINGHAM.—Honorary Obstetric Officer. Candidates must be either Doctors in Medicine of a British University or Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin. Applications, testimonials, and evidence of degree or diploma to be sent to the Secretary of the Hospital, from whom all further information may be obtained, on or before December 27th.

THE ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, BRIGHTON.—House Surgeon. Salary, £80 per annum, with board, lodging, and washing. Candidates must be qualified both in medicine and surgery, and registered under the Medical Act. Applications, with recent testimonials, to be sent to the Chairman of the Medical Committee, before January 2nd, 1885.

WEST OPHTHALMIC HOSPITAL, 153 and 155, MARYLEBONE ROAD, W.—Assistant Surgeon. Applications, with testimonials, to be sent to the Secretary, by January 17th, 1885.

DEATHS.

AYLING, W. H., L.R.C.P., at 94A, Great Portland Street, Portland Place, W., on December 19th, aged 67.

BARROW, JOHN, M.R.C.S., L.S.A., at 219, Tufnell Park Road, on December 14th, aged 33.

DALBY, W. B., M.D., F.R.C.S., at Belvedere House, Torquay, on December 17th, aged 60.

LACY, THOMAS SAUMAREZ, Deputy Inspector-General of Hospitals, H.M. Indian Army (retired), at Sanmarez Lodge, Guernsey, on December 18th, aged 66.

TEBAY, GEORGE, M.D., of 37, Belgrave Road, S.W., on December 20th, aged 69.

NOTES, QUERIES, AND REPLIES.

Dr. Edwd. Dapples, Genoa.—Letter and enclosure received with thanks.

COMMUNICATIONS RECEIVED—

Dr. HERMAN, London; Dr. MULES, Manchester; Mr. NOBLE SMITH, London; Dr. FORBES, Philadelphia; Mrs. WRIGHT, Lostwithiel; Capt. A. P. HOBSON, London; OUR LIVERPOOL CORRESPONDENT; Messrs. R. HOWELL & Co., London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. HENRY MORRIS, London.

BOOKS RECEIVED—

Membrana Virginatatis, by E. S. McKee, M.D.—The Story of a Great Delusion, by William White—Annual Report on the Health of Salford—Natures Hygiene, by C. T. Kingzett, F.I.C., F.C.S.—Helps to Health, by Henry C. Burdett—The New Chemistry, by J. P. Cooke, LL.D.—Report on the London Water Supply.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—New York Medical Journal—Louisville Medical News—Weekblad—Maryland Medical Journal—The Philadelphia Medical Times—Le Progrès Medical—The Students' Journal and Hospital Gazette—Berliner Klinische Wochenschrift—Société Médicale—The Western Medical Reporter—The Builder—Revue de Médecine—Revue de Chirurgie—North Western Lancet—Centralblatt für die Medicinischen Wissenschaften—Caslon's Circular—Manchester Weekly Post.

APPOINTMENTS FOR THE WEEK.

Saturday, December 27.

ROYAL INSTITUTION, 3 p.m.—Professor Tyndall, "The Sources of Electricity."

Tuesday, December 30.

ROYAL INSTITUTION, 3 p.m.—Professor Tyndall, "The Sources of Electricity."

1885.

Thursday, January 1.

ROYAL INSTITUTION, 3 p.m.—Professor Tyndall, "The Sources of Electricity."

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

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